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GENERAL INFORMATION

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THE UNIVERSITY OF MARYLAND EASTERN SHORE

Situated in the historic town of Princess Anne, the University of Maryland Eastern Shore (UMES) is a 745 acre campus that is at once academic, international, and Arcadian, making it an inviting and fitting atmosphere for study and young adult growth. It offers students a tranquil retreat to pursue academic goals; yet it is only a two-hour drive from any one of several mid-Atlantic metropolitan areas- Norfolk/Virginia Beach, Washington, Baltimore, Philadelphia, and Wilmington- providing access to many urban amenities. In addition, the resort town of Ocean City, MD, is less than an hour's drive away.

UMES is the only research and doctoral degree granting institution of the University System of Maryland on the Eastern Shore of Maryland. Its programs in Construction Management Technology, Aviation Sciences, and Hotel and Restaurant Management are unique to both the state and the region. Every graduate of its Physical Therapy and Dietetics programs has passed the licensure examinations since the programs were first offered. The campus location and facilities, the program offerings, and opportunities afforded by the University of Maryland Eastern Shore provide a fitting atmosphere for study and growth for its students who represent all ages, professions and experiential training, (e.g., traditional young-adult students, graduate students, workforce professionals, senior-citizens, etc.).

Almost 60 percent of the students live on campus. The oval shaped mall is the hub of campus academic and residential activity. The students, faculty, and staff walk together to and from their daily activities in the classrooms, administrative departments, student activities, and residential life facilities. The campus is decidedly close-knit.

Behind the campus oval are 500 acres of farmland that complete the multifaceted research institution. Innovative agricultural research, serving both local and global economies, is conducted through the Small Farms Institute and the Swine Research Center, which is the hub of all University of Maryland swine research; a poultry management operation; and crop and animal production programs.

The international elements of the UMES campus are evidenced by the flags of over 50 nations that wave at the campus entrance around the federal, state, and University flagpoles. These flags symbolize the various nationalities of students enrolled at UMES.

A recent ongoing capital improvement project reflects the University's emphasis on academic development. Combining the future with tradition, newer structures around the flagpole oval blend well with the Georgian-style architecture that defines the neighboring Ella Fitzgerald Center for the Performing Arts, the J.T. Williams administrative building, and Kiah Hall.

The Past

Founded under the auspices of the Delaware Conference of the Methodist Episcopal Church, the University of Maryland Eastern Shore (UMES) opened with nine students and one faculty members as the Delaware Conference Academy in Princess Anne on September 13, 1886.

Historical documents reveal that 37 students were enrolled by the end of the first year. Soon its title was changed to the Industrial Branch of Morgan State College, still under the influence of the Delaware Conference. Later it became known as Princess Anne Academy, but continued to be operated by Morgan State College under the control of the Methodist Church.

The State of Maryland, in operating its Land-Grant program at the Maryland Agricultural College at College Park, which did not admit African-Americans students, sought to provide a Land-Grant program for African-Americans. In 1919 the State of Maryland assumed control of the Princess Anne Academy and renamed it the Eastern Shore Branch of the Maryland Agricultural College.

In 1926, the College passed into complete control and ownership by the State of Maryland, and the University of Maryland was designated as the administrative agency. In 1948, the Eastern Shore Branch of the University of Maryland, popularly known as Princess Anne College, officially became Maryland State College, a Division of the University of Maryland. On July 1, 1970, Maryland State College became the University of Maryland Eastern Shore.

Presidents

Thirteen chancellors/presidents have served the institution since it was founded in 1886. They are as follows: Benjamin Oliver Bird, *1886-1897*, Portia E. Lovett Bird, *1897-1899*, Dr. Pevaizia O'Connell, *1900-1902*, Frank J. Trigg, *1902-1910*, Thomas Kiah, *1910-1936*, Robert A. Grisby, *1936-1947*, Dr. John Taylor Williams, *1947-1970*, Dr. Howard Emery Wright, *1970-1971*, Dr. Archie L. Buffkins, *1971-1975*, Dr. William P. Hytche, Sr., *1975-1997*, Dr. Dolores R. Spikes, *1997-2000*, Dr. Jackie Thomas, *2001-2002* (Interim President), and Dr. Thelma B. Thompson, *2002-present*.

The Present

From its original campus building known as "Olney," which was constructed in 1798 during the era of President George Washington, the University has grown to over 745 acres with 32 major buildings and 41 other units. The student population has increased to 4,500. With the strong support of the University System of Maryland Board of Regents, Administration, and the faculty, UMES has developed an academic program perhaps more impressive than any other higher education institution of its size in the East. Within the last decade, UMES has added 20 degree-granting programs to its academic roster. Graduates of these programs secure positions throughout the global community. However, many graduates often choose to remain on the Delmarva Peninsula, procuring careers in their areas of professional study to benefit the region, particularly the Lower Eastern Shore.

Today, the University offers major programs leading to the B.A. and B.S. degrees in 32 disciplines in the arts and sciences, professional studies, and agricultural sciences. In addition, UMES offers 12 teaching degree programs and two pre-professional programs, as well as an Honors Program to prepare students for professional school study.

Today the University offers a variety of well constructed and outstanding academic programs on a beautiful campus. It provides today's students, through versatile student life activities, with opportunities to develop into well-rounded individuals who are able to assume leadership in today and tomorrow's global society.

Additional course offerings during evening and weekend hours have also been developed, allowing a greater segment of the local population to enhance themselves and their communities through post-secondary education.

The Future

As the University of Maryland Eastern Shore grows and evolves during its second century, it proceeds with even greater vigor; the apexes of progress and quality continue to expand. Long-term plans include the expansion of the curriculum for undergraduate, graduate and professional study and continued improvement of the physical plant, including new construction and renovation projects for classroom and administrative buildings.

As the Eastern Shore continues to gain in productivity and recognition, UMES will continue to serve the needs of the industries and people around it. UMES is the only four-year institution on the Shore to offer undergraduate and graduate degrees in computer science. The University has long been known for providing professional training in the key regional and local industries of hospitality management and the management of commercial poultry and swine operations. The prediction is that this local enrichment will continue as more students enroll in the University's programs of business and technology, physical therapy, hotel and restaurant management and physician assistant. Likewise, the outlook is good for the sciences, agriculture, liberal arts, and graduate programs.

MISSION, PURPOSE AND GOALS OF THE UNIVERSITY

Mission Statement

The University of Maryland Eastern Shore (UMES), the State's Historically Black 1890 Land-Grant institution, emphasizes baccalaureate and graduate programs in the liberal arts, health professions, sciences, and teacher education. In keeping with its land-grant mandate, the University's purpose and uniqueness are grounded in distinctive learning, discovery, and engagement opportunities in agriculture, marine and environmental sciences, technology, engineering and aviation sciences, health professions, and hospitality management. Degrees are offered at the bachelors, masters and doctoral levels.

UMES is committed to providing access to a high quality values-based educational experience, especially for individuals who are first-generation college students of all races, while emphasizing multicultural diversity and international perspectives. The University serves the education and research needs of businesses, industries, government and non-government organizations. The University is committed to meeting the economic development needs of the Eastern Shore; workforce development needs of the State; international development priorities of the nation; and commercialization and entrepreneurial ventures of the University through engagement activities and partnerships.

UMES is a teaching/research institution that nurtures and launches globally competent citizens. It will continue to embrace its interdisciplinary curriculum, sponsored research initiatives, rural and economic development priorities, and community engagement. UMES will continue to expand its partnerships and collaborative arrangements with the University System of Maryland Institutions, other universities, community colleges, public schools, government, and other external agencies and constituencies.

UMES, the State's Historically Black 1890 Land-Grant Institution, is a teaching, research, and doctoral institution that nurtures and launches leaders in a student-centered environment, particularly from among ethnic minorities. Committed to providing high quality programs in an ethnically diverse environment, the University prepares students who will serve and shape the global economy. UMES is a growing, primarily residential university with learning, discovery, and engagement missions consistent with valuing the scholarship of faculty in discovering knowledge, disseminating new knowledge, and applying that knowledge to the extended community. The University recognizes its responsibility for developing human potential, enriching cultural

expressions and sharing its expertise with individuals, businesses, educational, governmental, and non-governmental organizations. The learning, discovery, and engagement foci are in accordance with UMES' legacy and mission as Maryland's 1890 Land-Grant Institution. UMES is proud of its over 123 years of continuous educational service, initially under the aegis of the Methodist Church.

One of the original purposes of the land-grant institutions, the education of citizens for life in the American economy (then, largely agrarian, but now more diverse), includes the disciplines of agriculture, home economics, and mechanical arts. UMES continues to embrace the original purposes as well as its current expansions to include the liberal arts, scientific, business, technological, and professional programs that extend to urban and international settings. The expansion of the land-grant missions reflects the changes in both internal and external environments which include cultural diversity, global interdependence, changes in the local, state, and national economy, and the exponential growth of information/communication technology. Just as the focus on agriculture, home economics, and the mechanical arts was appropriate in the 1890's, the wide range of instructional, research, and public service commitments that now characterize this university is vital today.

An international perspective in higher education is crucial to the development of leaders who are sensitive to the role America plays in shaping the national and international agendas. UMES is committed to providing an array of undergraduate and graduate programs in an environment that is responsive to global perspectives in education. The University aims to imbed internationalism in some curricula and to extend its concept of international education through continuing education and cooperative ventures with foreign universities, governmental and non-governmental organizations, and private industries.

Through the Maryland Cooperative Extension Service and the Agriculture Experiment Station, UMES works collaboratively with the University of Maryland, College Park, and the 1862 land-grant institution. The University's expanding instructional technology infrastructure supports the increasing externally funded research grants generated by campus personnel.

Quick responses to the economic and educational needs of the region and the State characterize the role that the University plays. The Hotel and Restaurant Management (HRM) Program's provision of well-trained personnel for state and national tourism industry, and the work of faculty researchers that relates to natural resource management and water pollution prevention exemplify this responsiveness. The Rural Development Center provides timely responses to businesses and government requests for financial, technical, managerial, organizational, and internet assistance. The Seafood Technology Program assists businesses with the development of procedures that maximize quality, safety, and profitability of seafood products through the use of applied research, certified training, and educational materials.

UMES engages in numerous collaborative efforts to (a) increase access and opportunity for a broad spectrum of students including the economically and educationally disadvantaged, low income adult learners, and first-generation college students; and (b) meet other state needs. Collaborative educational connections with local school systems address the Professional Development Schools, The Redesign of Teacher Education (including the PreK-16 initiative), and other programs. For instance, UMES and Salisbury University collaboratively operate the Master of Arts in Teaching, the dual degree in Sociology/Social Work, and Biology/Environmental Science Programs.

UMES supports the Eastern Shore Higher Education Center (ESHEC) at Wye Mills through the following collaborative activities: (1) The Department of Human Ecology and Chesapeake Community College have implemented a 2+2 Child Development Program, that is offered via distance education, and (2) A weekend-based doctoral program (Doctor of Education degree) in Education Leadership at the ESHEC as a participating partner of the Maryland Education Leadership Collaboration (MELC), consisting of the University of Maryland, Bowie State University and Morgan State University. MELC has to address the statewide need for education leaders trained at the doctoral level (teachers and administrators) because of the projected shortages due to school-aged population growth and expected retirements. Allegany Community College of Maryland, Frostburg State University, and UMES collaboratively offer HRM course work to the Western Region. The HRM and Aviation Science Programs conduct their baccalaureate degree preparation on selected community college campuses through articulated agreements. Additionally, the HRM program participates in the USM Shady Grove Center.

The University provides a Special Education Program, a teaching area of great state and national need, on the Eastern Shore at both the undergraduate and graduate levels. The University also has the only Technology Education Program in Maryland. Access to the Salisbury-Ocean City Airport allows the Aviation Sciences program to establish strong links with airport personnel. Physical Therapy majors provide professional service alongside staff of McCready Hospital – a 16 acute-care bed rural hospital with a 60-bed nursing home – for home residents and hospital patients of Somerset County. Agricultural and Natural Sciences students and faculty leaders partner with local agricultural and business persons, to conduct and apply appropriate research findings that improve their economic base. Career and Technology Education courses are offered outside of Princess Anne, such as in downtown Baltimore at the Maryland Center for Career and Technology Education Studies in the Baltimore Museum of Industry and the Eastern Shore Higher Education Center. These courses are targeted for technology education teachers who are

seeking degrees and teacher certification. UMES offers the Ph.D. in Marine-Estuarine-Environmental Sciences (MEES) and in Toxicology, in conjunction with other University System of Maryland institutions.

While the Carnegie Foundation classifies UMES as a Masters Comprehensive University, MA 1, the University aspires to achieve Doctoral/Research University-Intensive classification. Consequently, UMES has developed and implemented freestanding doctoral degree programs in (a) Food Science & Technology, (b) Physical Therapy, (c) Organizational Leadership, and (d) Educational Leadership. To respond to widespread regional and national health care needs, especially those in rural areas, a new School of Pharmacy and Health Professions (consisting of Departments of Physical Therapy, Physician Assistant, Exercise Science, Rehabilitation Services and Pharmacy) has been established.

The programs and initiatives discussed above are consistent and supportive of goals outlined in Maryland's Post Secondary Education Plan.

Institutional Capabilities

UMES views with pride its achievements in providing high-quality academic programs and services for ethnically and culturally diverse students. Toward that end, the University offers programs and assistance that attract, serve, retain, and graduate first-generation college students, nationally-recognized scholars, and international clientele as part of its core capacity. Students come from over 70 different countries. At the faculty level, the University is impressively diverse. The number of full-time, non-African-American faculty exceeds the number of those of African-American descent.

Research and development activities focus on information technology, faculty and student development, agricultural and environmental sciences, and international development. UMES plays a pivotal role in responding to local, state, and international priorities through the following unique initiatives:

a) Paul S Sarbanes Coastal Ecology Center (PSSCEC)

The UMES PSSCEC located at Assateague Island, (six miles from the Chesapeake Bay and thirty miles from the Atlantic Ocean) brings considerable strength to the institution's Environmental programs. Because of the ideal location of UMES – six miles from the Chesapeake Bay and thirty miles from the Atlantic Ocean and PSSCEC, the UMES' Marine Estuarine and Environmental Sciences (MEES) program plays significant national role in the diversification of the nation's work force in the Marine Estuarine Environmental Sciences disciplines. It is the only teaching facility dedicated to the study of coastal processes in the state of Maryland.

PSSCEC also supports the Maryland State plan to develop highly qualified workforce for the economic growth and vitality of the State of Maryland by serving as a focal point for the advanced training of elementary, junior and senior high school teachers and students in marine sciences. Together with the MEES program, PSSCEC provides access to excellent facility for the preparation of post secondary students for careers in research, management and public policy that support the sustainable harvest and conservation of the state and nation's living marine resources. PSSCEC also supports the research mission of the NOAA funded Living Marine Resources Cooperative Science Center (LMRCSC) at UMES which conducts studies congruent with the interests of NOAA fisheries research

PSSCEC provides services to the i) Environmental Protection Agency (EPA) to monitor water quality; ii) US Army Corps of Engineers for in-situ coastal ocean research; NASA for remote sensing activities; iii) National Aquarium as a possible holding site for injured marine mammals; iv) Maryland Department of natural Resources for research on blue crab parasite and fisheries monitoring; v) UMES Hotel/restaurant Management program for training and internships in Eco-tourism; vi) Sea Grant/University of MD Extension Service for workshops; vii) Graduate and undergraduate instruction in Marine Estuarine Environmental Sciences, Outreach to Elementary, Middle and High Schools, etc.

b) Construction Technology Partnerships

Partnerships have been established with construction and manufacturing industries throughout the state via industry advisory councils, student internships, field trips, and scholarship support. Specifically the Construction Management Technology program has established transfer curriculum articulation agreements with several community colleges to allow seamless transfer of credits into the B.S. degree program at UMES and at the Shady Grove Campus. Students who enroll in the upper division part-time CMT offering at The Universities at Shady Grove can complete their degree requirements at that location during evening study.

c) Career and Technology Education Partnerships

Partnerships have also been established with local educational agencies and the Maryland State Department of Education, Division of Career Technology and Adult Learning to offer Career and Technology Education teacher certification courses at the Baltimore Museum of Industry.

d) Center of Excellence for Partnership with USDA Agency - Agricultural Research Service (ARS)

The USDA/UMES, Center of Excellence was established in 1995 with the signing of an MOU between UMES, ARS and FSIS and the arrival of ARS personnel on the campus. This long-standing and strong partnership between UMES and USDA has resulted in the establishment of a new Ph.D. Program in Food Science at UMES, and construction of a \$17 million dollar state-of-the art Food Science and Technology Building.

The Center provides training and hands-on research experiences for undergraduate and graduate students. The primary objective of the partnership is to stimulate interest and provide access for African-Americans, and other under-represented groups, to pursue advanced careers in agricultural research.

Research at the Center is focused on improving the safety, quality and value of foods produced in the Delmarva region, with emphasis on the microbiological safety of chicken meat and chicken meat products. Computer models that predict the risk of *Salmonella*, *Campylobacter* and *Listeria* infection from chicken have been developed. The models have been incorporated into a software program called the Poultry Food Assess Risk Model and distributed to food safety professionals around the world. The Center is nationally recognized as a shining example of how successful partnerships between federal agencies and the 1890 Land Grant Institutions and Historically Black Colleges and Universities can have a large positive impact through agricultural research on the quality of life in the United States and abroad, while simultaneously promoting the important principles of workforce diversity and civil rights.

The Center provides training and hands-on research experiences for undergraduate and graduate students. The primary objective of the partnership is to stimulate interest and provide access for African-Americans, and other under-represented groups, to pursue advanced careers in agricultural research.

e) International Partnerships

UMES has linkage agreements with 18 Universities and research institutions in Africa, the Caribbean, and Central America. These linkages enhance the university's international education focus through: (1) student study and research abroad, (2) faculty and student exchanges, (3) international scholar-in-residence, and (4) international development programs. The University also has several cooperative agreements with the United States Department of Agriculture, to provide technical assistance to the United States Agency for International Development.

f) Professional Education Unit

The Professional Education Unit at UMES consists of 16 NCATE-accredited and MSDE-state approved programs at the baccalaureate and masters level in teacher and counselor education. Collaboration with public schools is strength of the professional education programs as the Unit has always emphasized the importance of integrated and sequenced field and clinical experiences and other professional development project and has always placed great value on the contributions made to the Unit by field partners. The Unit has formalized its collaboration with the public schools and currently has 24 Professional Development Schools in 4 counties (Caroline, Somerset, Wicomico, and Worcester). Teacher and counselor candidates are in field experiences, practica and internships at these sites. In addition, the Unit is working collaboratively with these 4 counties and the other 5 counties on Maryland's Eastern Shore (Cecil, Dorchester, Kent, Queen Anne's and Talbot) in the area of special education professional development through support from the Maryland State Improvement Grant (MSIG), now in its sixth year.

The presence of first-rate graduate faculty with strong national and international reputations increases the probability that a larger number of high performing students will enroll in the University. Faculty-student research pairs present their findings to the University, the community, funding agencies, national, and international professional conferences. Thus, UMES attracts, supports, and graduates academically capable students who have experience in research and development.

The Office of Information Technology, using a value-added strategy, is committed to leveraging the advances in information technology to support innovative research, education, and service to meet the needs of the University, students, and external constituents.

The Applied Information Technology Research and Education Center emphasizes both research and educational objectives, while providing state-of-the-art information technology services in support of government agencies, regional businesses, and university academic programs.

Objectives and Outcomes

University progress depends upon the success of its accountability practices; therefore, strategic planning, assessment and evaluation are key to measuring an institution's success. The University's strategic planning process ensures that we use a systematic process to engage in ongoing, dynamic and comprehensive assessment of the annual *UMES Strategic Operational Plan*. Goals are carefully tracked and reports are regularly disseminated to assist faculty, students and administrators in using data-based decision-making to map progress.

The current *UMES Strategic Plan* was developed during academic year 2003-2004. The *Plan* represents the collective effort of the President, executive units (cabinets, expanded cabinet and executive council), faculty, students, staff and community members.

The UMES 2004-2009 Strategic Plan is consistent with and supports the five goals of the *2004 Maryland State Plan for Post Secondary Education*: (1) *Quality and Effectiveness*, (2) *Access and Affordability*, (3) *Diversity*, (4) *Student Centered Learning Systems*, and (5) *Economic Growth and Vitality*. The UMES goals of the Strategic Plan are as follows:

- Goal I:** Continue to design and implement academic programs that are responsive to the UMES mission and are systematically reviewed for sustained quality, relevance and excellence to meet the challenges of a highly competitive and global workforce.
- Goal II:** Promote and sustain a campus environment that supports a high quality of life and learning and that responds to the needs of a diverse student population.
- Goal III:** Enhance university infrastructure to advance productivity in research, technology development and transfer; contribute to an enhanced quality of life in Maryland; and facilitate sustainable domestic and international economic development.
- Goal IV:** Redesign administrative systems to accelerate learning, inquiry and engagement (outreach)
- Goal V:** Efficiently and effectively manage the resources of the University and aggressively pursue public and private funds to support the enterprise.

VISION

The University of Maryland Eastern Shore (UMES) moves into the first decade of the twenty-first century poised to become a Carnegie Doctoral/Research University - Intensive and a Four-Year 3 classified institution. The University is the only research and doctoral-granting institution on the Eastern Shore of Maryland. As an 1890 Land-Grant University, it is authorized to offer 32 bachelor's degrees, 10 master's degrees and 7 doctoral degrees. The University's faculty members are well-respected scholars and artists who contribute to the university's productivity and to their professions in the areas of performance, teaching, learning, research, and service. Working within the framework of the University System of Maryland (USM), UMES will honor its triple mission of being a comprehensive institution, a comprehensive Land-Grant institution and a Historically Black Institution (HBI), each with its special challenges and opportunities.

The University has made great strides in the past and is currently encouraged by enrollment growth. Recognized for two consecutive years as the second most beautiful campus in the nation, UMES boasts an impressive physical infrastructure and with 745 acres of land, has significant potential for growth in its physical facilities. Further, UMES leads all comprehensive institutions in the System in funds received from sponsored research and grants per FTE faculty. A culturally and ethnically diverse campus, its students, faculty, and staff represent over 60 countries providing a stimulating environment for international perspectives. "It is my goal as president, stated President Thelma Thompson, to honor the rich history of this institution and to move it forward to accomplish its mission."

The vision of President Thompson rests on a commitment to sound academic quality; development of values-based leaders; development of an inclusive environment for campus and community stakeholders; improved planning and reporting processes for accountability; increased enrollment and new approaches to fiscal soundness; increased commitment to the land-grant imperatives for community outreach through partnerships and collaborations; infusion of international perspectives throughout the campus; and development of an Institutional Advancement Division to create a marketing initiative for the University.

The commitment to develop values-based leaders is an important one. Character counts and so UMES will attempt to teach the whole student. It is critical that UMES teach values by example and by precept. Leadership for the 21st century must be purposeful, high-minded, discerning and analytical, but above all else, leaders must be values-based. A commitment to teamwork through the establishment of an inclusive environment is vital. Campus and community stakeholders must understand the vision, commit to the University's mission, engage in activities that contribute to the realization of the strategic plan, and use outcomes to inform the change process. By so doing, UMES will maintain good quality in all units of the university.

UMES is committed to the enhancement of its assessment system beyond the academic program. It is important that the planning and evaluation process draw from a system that is comprehensive and integrated across all programs and services offered by the University. In order to manage effectively and improve operations and programs, the assessment system must be strengthened

and become systematic in order to make informed university decisions. This implementation will not only assure efficiency and effectiveness, but will assure accountability.

Fiscal soundness is the foundation of any institution's survival. UMES will continue to respond to state budgetary constraints while ensuring that programs and services remain excellent. Therefore, new approaches to fiscal strength will be sought to help to compensate for decreases in state appropriations. These new approaches will enhance UMES' ability to strengthen teaching, learning, inquiry, and engagement. The pursuit of non-risk entrepreneurial goals will improve the fiscal posture and set the tone for self-help and quality independence.

President Thompson is committed to returning UMES to its role as a cultural center for the Eastern Shore, offering cultural events open to the public and assisting the community in social, civic, and economic areas with the expectation that the partnership posture will be reciprocal and will be accepted and operative well beyond the immediate boundaries of UMES.

The University will commit to new collaborations and partnerships to provide innovative technologies and teaching strategies to the academic programs. These collaborations will provide opportunities for student practicum and internship experiences, faculty exchanges and retooling initiatives, resident life activities, and facility upgrade. Collaborations will be internal as well as external with other universities, corporations, and governmental agencies.

The international perspective in higher education is crucial to the development of leaders who are sensitive to the role America plays in shaping the national and international agenda. UMES is committed to providing an array of undergraduate and graduate programs in an environment that is responsive to global perspectives in education. The University aims to imbed internationalism in some curricula and to extend its concept of international education through continuing education and cooperative ventures with foreign universities, government agencies, non-government agencies and private industry.

President Thompson's commitment to UMES is to make this historic university, with its rich heritage, a vital part of the Eastern Shore community, graduating students who will be engaged citizens regardless of where they serve.

With the support and assistance of the UMES Board of Visitors, alumni, faculty and staff, this vision places students at the Center of this enterprise where learning and leadership are our top priorities. UMES will work with all constituencies toward the goal of improving our community and our world since the future depends upon the education of our youth. We remain appreciative of the support of the University System of Maryland and its Board of Regents

DISCLAIMER

The provisions of this publication are not to be regarded as an irrevocable contract between the student and the University of Maryland Eastern Shore. At the time of the publication, every reasonable effort was made to attain factual accuracy in the material presented. The catalog is not intended to be a complete statement of all procedures, processes and regulations governing undergraduate, graduate or professional degree programs which may be covered in separate program and office manuals and handbooks. The University of Maryland Eastern Shore reserves the right to make changes in fees, course offerings and general regulations and academic requirements without prior notice. For the most up-to-date information on course offerings, program requirements and deadlines, please write, call, or e-mail the program or department.

NONDISCRIMINATION POLICY AND INTEGRATION STATEMENT

The University of Maryland Eastern Shore is committed to providing equal opportunity through its employment practices, educational programs, admissions and the many services it offers to the community. It is the policy of the University that no person shall be discriminated against on the basis of race, sex, color, religion, national origin or ancestry, age, marital status or handicap.

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GOVERNANCE OF THE UNIVERSITY SYSTEM OF MARYLAND

Since its formation in 1988, the University System of Maryland has focused on the vision of national eminence described in the System's founding legislation. This vision has guided in the pursuit of its broadest goal: to serve Marylanders' educational needs through teaching, research, and public service.

Specific missions are central to UMES' success as a family of thirteen diverse and complementary institutions. They enable UMES to balance its broad educational mission with its responsibility for prudent allocation of resources. These mission statements reflect efforts to meet these obligations as UMES works to build a higher education system marked by quality, access, and accountability.

The mission statements also provide a comprehensive glimpse of the University System of Maryland. Each of the institutions has brought its unique history and strengths to the formulation of its mission. Each has also reflected on its identity, constituencies, and priorities. These statements were not developed in isolation; each USM institution refined its statement as part of a collegial process involving sister USM institutions, under the guidance of the Board of Regents and with input from the System Office and the Maryland Higher Education Commission. The resulting "family portrait" captures both the institutional diversity that is a USM hallmark and the synergy that is at the heart of the University System of Maryland: the creative interaction that produces a strong and vibrant academic enterprise.

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Health & Wellness Center

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Administrative Computing

MR. PHILLIP TAYLOR
B.S.
Director
Information Technology

MR. JAMES HAYES
B.S., M.B.A
Director
Academic Computing

LOCATION

UMES is located in the small town of **Princess Anne** on the **Eastern Shore** of Maryland. The town dates back to 1733 and has many buildings and landmarks of historic interest. The quiet community environment is excellent for learning, yet it is only 3 hours by car from the abundant cultural and recreational facilities of Washington, D.C., Baltimore, Philadelphia, and Virginia Beach. The state's famous seaside resort, Ocean City, is only 1 hour from the campus. The campus is located 13 miles south of the town of Salisbury, which provides shopping and recreational facilities.

FACILITIES

The University of Maryland Eastern Shore is a 745 acre campus that is at once academic, international, and Arcadian, making it an inviting and fitting atmosphere for study and young adult growth.

University Buildings

Alumni House (Institutional Advancement)
Auxiliary Gym and Wellness Center
Charles R. Drew Building
Early Childhood Research Center (Child Development Programs, Graduate Studies and Sponsored Programs)
Frederick Douglass Library
Farm Machinery Building
Farm Shop House
Greenhouse Academic Building
Greenhouse Research Building
Hydroponics Facility
J. Milliard Tawes Gymnasium
Learning Resource Center
Lida Brown Building (Student Health Center)
MAES Poultry Office/Laboratory
MAES Poultry Environmental Research Lab
Marksman – East
Marksman – West
Physical Plant/Central Receiving
Poultry Technology Management House
Somerset Hall – under renovation
Swine Reproductive Facility
Swine Research Facility
WESM/91.3 FM Radio Station

Classroom and Laboratory Buildings

Access and Success Building
Charles Clinton Spaulding Hall
Crop and Aquaculture Swine Reproduction Facility
Ella Fitzgerald Center for the Performing Arts
Food Science and Technology Building
Frank Trigg Hall
George Washington Carver Hall
Henry O. Tanner Hall
Modulars 1-6
Richard Hazel Hall
Richard A. Henson Center (Hotel and Restaurant Cooperative Extension, Rural Development, and Management, and Human Ecology)
Temporary Classroom 1
Temporary Classroom 2
Theodore Briggs and Richard Thomas Arts and Technology Center
Thomas R. Kiah Hall
William P. Hytche Athletic Center
Wilson Hall

Dormitories

Community Center/Office of Residential Life
Court Plaza Residence Hall
Harford Hall
Hawk's Landing Apartment
Murphy Hall & Murphy Hall Annex
Nuttle Hall
Plaza Residence Hall
Student Apartments 1-6
Student Residential Complex A-D & A-F
University Terrace
Wicomico Hall

Service Buildings

Benjamin Oliver Bird Hall (Human Resources and Title III)
John T. Williams Hall (President; Vice Presidents for Academic, Administrative and Technology and Commercialization; Institutional Planning and Assessment, Senior Executive Assistant to the President)
Paul S. Sarbanes Coastal Ecology Center
Public Safety Building
Richard A. Henson Center (Maryland conference and hotel rooms)
SRC Laundry Facility
Student Apartment Laundry
Student Development, Cultural and Recreation (Admissions and Recruitment, Registrar, Comptroller, Student Financials, Procurement, Accounts Payable, Counseling, Center for Access and Academic Success)
Student Services Center (Dining Services Auxiliary Enterprise, Vice President Student Life and Enrollment Management, SGA, Career Planning and Placement, Cooperative Education, Student Activities and Organizations, UMES Chapel, Post Office, and Follett Bookstore)

Service Buildings

Waters Hall (Administrative Computing, Information Technology, Academic Computing and Student Labs)

OFFICE OF THE PRESIDENT

www.umes.edu/

Under the administration of the President, The administrative organization of the campus is divided among five divisions: Division of Academic Affairs, Division of Administrative Affairs, Division of Technology and Commercialization, Division of Institutional Advancement, and Division of Student Life and Enrollment Management. Each division is headed by a Vice President who administers the policies, procedures, and directives of the President, the Chancellor, and the Board of Regents.

SENIOR EXECUTIVE ASSISTANT TO THE PRESIDENT

The Senior Executive Assistant’s office coordinates planning, policy-making, and management processes at the University. This office monitors matters of operational and strategic importance and develops protocols and technical reports to define procedures and summarize outcomes related to the achievement of the University’s mission. The office supervises the strategic planning process, development of the operational plan, and the implementation of goals and objectives of the University. The office prepares proposals for external support and routinely engages in review of all programs and services to ensure institutional accountability.

DEPARTMENT OF INTERCOLLEGIATE ATHLETICS

www.umes.edu/Athletics

The University of Maryland Eastern Shore is a Division I member of the National Collegiate Athletic Association (NCAA) and a member of the Mid-Eastern Athletic Conference (MEAC). The University sponsors the following sports:

<u>Men</u>		<u>Women</u>	
Baseball	Basketball	Basketball	Bowling
Cross Country	Tennis	Cross Country	Softball
Track & Field		Tennis	Track & Field
		Volleyball	

Athletic scholarships are available to qualified student-athletes. All full-time students and prospective full-time students are eligible to try out for teams. Freshmen interested in participating must be cleared by the NCAA Clearinghouse prior to competition. Students can secure the proper forms at their high school counselor’s office or by contacting the Compliance Coordinator on campus. Continuing students must meet university progress requirements before being allowed to participate.

Mission

The Department of Intercollegiate Athletics has a long history of excellence in promoting athletic competition, academic achievement, and personal development in a supportive environment. The Department strives to maintain this legacy by producing championship caliber teams while providing student-athletes the opportunity and resources to reach their highest potential in all areas of their lives. The University and the Department of Intercollegiate Athletics are committed to the equitable and fair treatment of all student-athletes without regard to race or gender. Emphasis is placed on opportunities for full participation of women in the athletics program.

Through team sports, the faculty and staff seek to develop the student-athlete’s interpersonal skills and self-esteem. It is the philosophy of the Athletics Department that self-esteem is the key to success in any endeavor and should be fostered in all Departmental activities. Pride in one’s self, respect for teammates, and pride in the Institution are actively promoted.

The University of Maryland Eastern Shore’s Department of Intercollegiate Athletics emphasizes academics as the primary focus in any student-athlete’s life, and assists student-athletes in developing a balance in their social, athletic, and academic pursuits. It is the goal of the Department to produce graduates who are personally and professionally prepared to meet the challenges of the future.

INTERNATIONAL DEVELOPMENT PROGRAMS

www.ums.edu/oiprogram

The Office of International Development Programs (OIDP) is designed to facilitate campus-wide internationalization of research, teaching, and outreach activities in order to promote cross-cultural knowledge and understanding among students, faculty, and staff. Its goals are to broaden faculty and staff involvement in international research and development activities; provide opportunities for student experiential learning and academic exchange programs; develop domestic and international linkage agreements to facilitate international education; and assist faculty and staff members to participate in exchange programs. **For additional information contact the Office of International Programs at 410-651-6543/6192 or oiprogram@umes.edu.**

INSTITUTIONAL RESEARCH, PLANNING AND ASSESSMENT

The Office of Institutional Research and Assessment (OIRPA) provides promptly and in clear format, accurate and consistent data/information needed by UMES to support its efforts for the continuous improvement of its programs and services. It supports wide-ranging initiatives including the University's strategic planning process, student access and retention efforts and the overall institutional environment by assessing and evaluating its strategic initiatives and providing assessment of institutional effectiveness and learning outcomes data/information to inform University policy.

The office also provides data/information to meet institutional accountability and informational needs of individuals and offices within the institution, the University System of Maryland, Maryland Higher Education Commission (MHEC), Federal, State, private and accreditation agencies. **For additional information contact the Office of Institutional Research and Assessment at 410-651-7530/7531 or smnvirenda@umes.edu.**

TITLE III PROGRAMS

The UMES Title III Office is to serve as the central administrative office for the management of the Title III funded activities. The office assists the university by ensuring planning, management, budgetary and administrative oversight and providing technical assistance and evaluation of each activity. These functions, when applied in concert with other campus administrative activities, strengthen the total infrastructure of UMES. Additionally, the office serves as a liaison between UMES and the U.S. Department of Education.

The Title III Office must mesh an institutional perspective and comprehension of the institution's mission, goals and objectives with the Strengthening of Historically Black Colleges and Universities (HBCUs) Program and the Strengthening of Historically Black Graduate Institutions (HBGIs) Program in order to affect long range plans for utilization of Title III funding.

ACADEMIC AFFAIRS

www.umes.edu/Academic/

SCHOOLS, DEPARTMENTS, CENTERS AND PROGRAMS AT THE UNIVERSITY OF MARYLAND EASTERN SHORE

The Division of Academic Affairs, administered by a Vice President an Associate Vice President and an Interim Assistant Vice President, including five Schools and the Frederick Douglass Library. Each School is lead by an academic Dean, which is responsible for the overall supervision of specific departments. The School of Agricultural and Natural Sciences houses the Departments of Agriculture, Food and Resource Sciences; Human Ecology; and, Natural Sciences. The School of Arts and the Professions houses the Departments of Criminal Justice; Education; English and Modern Languages; Fine Arts and Social Sciences. The School of Business and Technology houses the Departments of Business, Management and Accounting; Engineering and Aviation Sciences; Hotel and Restaurant Management; Mathematics and Computer Science; and, Technology. The School of Pharmacy and Health Professions, formerly known as the School of Health Professions, houses the Departments of Exercise Science; Pharmacy; Physician Assistant, Physical Therapy and Rehabilitation Services. In concert with the overall mission of the University, each school achieves its specific mission and goals through its distinctive academic departments. Students select major programs of study leading towards an academic degree from one or more of the eighteen academic departments housed within the four degree-granting Schools.

The School of Graduate Studies coordinates graduate programs for the four degree-granting Schools.

The Division of Academic Affairs also includes the following academic support units: Instructional Technology, Maryland Cooperative Extension, 1890 Extension, 1890 Research, The Honors Program, Poultry Research, Rural Development, Study Abroad, Teacher Education, International Education Academic Support Services, Library Services and Upward Bound--a pre-college educational program for local high school students.

ACCREDITATION AND PROFESSIONAL MEMBERSHIPS

The University of Maryland Eastern Shore (UMES) is accredited by the Middle States Commission on Higher Education, 3624 Market Street, Philadelphia, PA 19104. (267-284-5000). The Middle States Commission on Higher Education is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation.

UMES is accredited by or hold membership in the following agencies:

1. Accreditation Review Commission on Education for the Physician Assistant (ARC-PA);
2. American Chemical Society Committee on Professional Training (ACSCPT);
3. American Council for Construction Education (ACCE);
4. Commission on Accreditation for Dietetics Education (CADE) of the American Dietetic Association;
5. Commission on Accreditation in Physical Therapy Education (CAPTE);
6. Maryland State Department of Education (MSDE);

7. National Council for Accreditation of Teacher Education (NCATE);
8. National Council for Social Sciences (NCSS);
9. National Council on Rehabilitation Education (CORE);
10. National Science Teacher's Association (NSTA); and,
11. Professional Golfer's Association of America. and

UMES recently obtained per candidacy status from the Accreditation Council for Pharmacy Education (ACPE).

The University is recognized by the University Aviation Association (UAA) and the Federal Aviation Administration (FAA). Membership is held by the University with the Maryland Higher Education Commission (MHEC), the National Council of Educational Opportunity Association (NCEO), the National Association for Equal Opportunity in Higher Education (NAEOHE), the Association of Public and Land-Grant Universities (APLU), the American Council on Education (ACE), and the National American Association of Summer Sessions, the American Association for Teacher Education (AACTE), and the National Council for Science and the Environment (NCSE).

THE HONORS PROGRAM

The primary mission of the Honors Program at the University of Maryland Eastern Shore (UMES) is to prepare academically talented students for entry into graduate and professional schools. Facilitating the entry of those from professionally underrepresented groups within the State is a priority. There is one honors program at UMES; however, students meeting the admission requirements of the Honors Program may elect to pursue a course of study in one of three components of honors education.

Admission to and Retention in the Honors Program

Students who enter the Honors Program must have graduated from an accredited high school. Preference is given to Maryland residents. Successful academic preparation in the sciences, mathematics, and humanities is necessary to be competitive for admission, as are above average SAT scores. Normally, students are admitted at the beginning of the fall semester of the Freshman year. Applications received prior to **February 1** are given priority. Students are encouraged to apply for admission **no later than March 1 of the year of desired admission.**

Admission into the Honors Program is selective. In making application to any component of the Honors Program, the following procedures should be observed:

- The applicant should complete a University of Maryland Eastern Shore application and indicate at the top of the first page that admission into The Honors Program is sought. The application and a copy of an official transcript with SAT scores should be forwarded to the UMES Office of Admissions and Registration.
- At least two letters of recommendation are required from science, mathematics, or English teachers who have taught the applicant. The recommendations and a list of extracurricular activities, honors, and awards earned while in high school should be sent to The Honors Program office.
- The applicant should submit a personal essay to The Honors Program office indicating why the major area of study has been chosen and why admission into honors is desired. Any additional information the applicant wishes to be considered that is not included elsewhere in the application should also be included in the personal essay.

If the full and complete application indicates the applicant may qualify for the Honors Program, an interview at UMES may be scheduled. Applicants are notified by the director of the status of their acceptance into the program prior to April 15 of the year in which admission is sought.

Program Description

Students accepted into the Honors Program are automatically eligible for Honors Merit Scholarships. Maryland Distinguished Scholars, National Merit Finalists and National Achievement Finalists receive Merit-Plus Scholarship Awards. No separate application is required. Awards to **entering freshmen** are based strictly on merit and academic promise. Financial need is not considered. Scholarships vary in amount, but may include the full cost of room, board and tuition. Awards are renewable for three additional years provided good academic standing in the program is maintained. Applications should be submitted early for scholarship consideration. **For more additional information contact The Honors Program office at 410-651-6082 or rtlamb@umes.edu/aroberts@ume.edu.**

Honors Convocation

Full-time undergraduate students completing a minimum of 12 semester hours of credit with a grade point average (GPA) of at least 3.5 are eligible for participation in the University's annual Honors Convocation ceremony. The Honors Convocation is held the first Thursday in April as a public recognition for exemplary scholastic achievement (GPA of at least 3.5).

UNDERGRADUATE DEGREE PROGRAMS

UMES offers the Bachelor of Science (B.S.), Bachelor of Science General Studies (B.S.G.S), and the Bachelor of Arts (B.A.) degrees in the programs listed below. In addition there are many options and specialties which are described in the catalog sections pertaining to each academic program.

All four year degree programs at the University require a minimum of 120 semester hours, with the exception of Physician Assistant and Professional Golf Management, and excluding deficiency courses and remedial work and MATH 101 for the bachelor's degree. Semester hour requirements beyond 120 credits have already received prior approval from the USM Board of Regents.

Students who complete one or more of the courses of study offered by the University will be awarded the degree indicated.

School of Agricultural and Natural Sciences				
Degree	Program Title	Concentration	Minor	
BS	Agribusiness		Agribusiness	
	General Agriculture	Agriculture Education Agricultural Studies Animal and Poultry Science Option 1: Business/ Technology Option 2: Pre-Veterinary/ Pre-Professional Plant and Soil Science		
	Biology	Biology Track: Pre-Medicine/Pre-Dentistry Track: Pre-Physical Therapy Biology Education		
	Chemistry ¹	Chemistry Track: Pre-Medicine/Pre-Dentistry Chemistry Education Pre-Medicine/Pre-Dentistry	Chemistry	
	Environmental Sciences	Marine Science Environmental Chemistry		
	Human Ecology	Child Development Dietetics/Nutrition Family & Consumer Science Fashion Merchandising	Clothing and Textiles Business Administration Gerontology Nutrition Option 1-Nutritional Science Option 2-Food and Nutrition	
	BS/MS	Environmental Sciences	Marine Science Environmental Chemistry	

UPPER DIVISION

CERTIFICATE Family Financial Planning

School of Agricultural and Natural Sciences			
Degree	Program Title	Concentration	Minor
MS	Food and Agricultural Sciences	Ag & Extension Education Agricultural Economics Animal & Poultry Sciences Natural Resource Sciences Plant and Soil Science	
	Marine-Estuarine and Environmental Sciences	Ecology Fisheries Environmental Chemistry Environmental Science	
	Toxicology	Toxicology	
Ph.D.	Food Science and Technology		
	Marine-Estuarine and Environmental Sciences	Ecology Fisheries Environmental Science Environmental Chemistry	
	Toxicology	Toxicology	

¹ACS Certification.

Degree	Program Title	School of the Arts and Professions Concentration	Minor
BA	African American Studies		
	Applied Design	Graphic Illustration Commercial Photography Sequential Art Commercial Ceramics	
	Art Education		Art
	English	English English Education	Foreign Language Telecommunications Theater Arts
	History		History
	Music Education	Choral/General Instrumental	Music
	Sociology	Social Studies Education	Political Science Sociology African American Studies Public Policy
BSGS	General Studies		
BASW	Sociology/Social Work		
BS	Criminal Justice	Corrections Law Enforcement Pre-Law Preparation	Criminal Justice
	Special Education		
MAT ¹	Agriculture Art Biology Business Chemistry English Family and Consumer Sciences Mathematics Music Social Studies Technology		
MS	Criminology and Criminal Justice	Criminology and Research Law Enforcement and Courts Corrections and Delinquency Prevention	
M.Ed.	Counselor Education Special Education Career and Technology Education		
Ph.D.	Organizational Leadership		
Ed.D	Educational Leadership		

¹With Salisbury University

Degree	Program Title	School of Business and Technology	
		Concentration	Minor
BS	Accounting	General Finance Marketing	
	Aviation Sciences	Aviation Electronics Aviation Management Aviation Software Professional Pilot	
	Business Administration	General Finance Marketing	Accounting Business Administration
	Business Education		
	Computer Science/Data Processing	Business Science	Computer Science Computer Science (w/Business emphasis)
	Construction Management Technology		Technical Management
	Engineering	Aerospace Computer Electrical Mechanical	
	Engineering Technology	Electrical/Electronics Tech Mechanical Engineer Tech	Electrical/Electronics Mechanical
	Hotel and Restaurant Management	Mngt.	Culinary Arts Restaurant Hotel and Restaurant Mngt. Food and Beverage Mngt. Travel and Tourism
	Professional Golfers' Assoc (PGA) Golf Management		
	Mathematics		Mathematics
	Mathematics Education		
	Technology Education		
	M.Ed.	Career and Technology Education	
MS	Applied Computer Science		

School of Pharmacy and Health Professions			
Degree	Program Title	Concentration	Minor
BS	Exercise Science	General	Clinical Health Fitness
	Physician Assistant		
	Rehabilitation Services	American Sign Language Chemical Dependency	Behavioral Allied Health
MS	Rehabilitation Counseling		
DPT	Physical Therapy		
Pharm.D.	Pharmacy		

PRE-PROFESSIONAL PROGRAMS

UMES has only two programs in which there is a pre-professional stage because of the national accreditation of the programs: Pharmacy and Physician Assistant. The only pre-professional identification UMES accepts is pre-physician assistant and for pre-pharmacy.

THE FREDERICK DOUGLASS LIBRARY

The Frederick Douglass Library, lead by the Dean of Library Services, provides a multiplicity of reference and technical resources onsite and via the Internet to support the University's programs. As a member of the University System of Maryland (USM) Libraries, the Frederick Douglass Library is electronically linked via an automated integrated internet system with USM's eleven campuses and thirteen libraries. Therefore, the Library's patrons have access to the USM's extensive library collections, electronic resources, and global access to collections, databases, and/or resources worldwide.

Frederick Douglass Library (1968) Named for the self-educated abolitionist, orator and author who was born on the Eastern Shore. This three-story facility houses a multiplicity of print and non-print resources to support the mission and academic programs of the university. In 1991, through renovation efforts, the library doubled in size to 61,000 square feet. The collection includes over 204,000 volumes, 48,000 bound periodicals and over a half million microfiche and microfilm collections. As a member of USMAI (University System of Maryland and Affiliated Institutions) consortium, the library is affiliated with the University's eleven campuses and thirteen libraries for the purpose of sharing library resources. The integrated, comprehensive library system, **ALEPH** makes it possible for our patrons to have 24/7 access to USMAI library collections and electronic resources. These collections and resources include the library catalog and over 120 research databases often including full text journals, books and newspapers. A very competent staff is also available to assist with information needs.

The Library provides instruction sessions to enhance students' research skills. Library instruction sessions are tailored to the needs of class to assist students and may range from an overview of basic library resources to the use of advance or subject research materials and techniques. Since fall 2005, the library has offered an online Information Literacy course taught by the Library Faculty. Please visit our web site www.fdl.umes.edu for additional information about the library.

THE CENTER FOR ACCESS AND ACADEMIC SUCCESS (CAAS)

The Center for Access and Academic Success (CAAS) provides students with access to academic services which strengthen students' performance and promote student success and retention. The CAAS staff is comprised of highly trained and caring professionals dedicated to helping students persist in their efforts and achieve success at the University of Maryland Eastern Shore. CAAS services focus on supplemental academic advising, tutoring, and mentoring.

Supplemental academic advising services are provided by supplemental academic advisors and consist of out-of-class support for students who have consulted with their primary faculty advisor. Supplemental academic advisors consider faculty advisement paramount to student success and will defer to faculty recommendations when advising students. Supplemental academic advisors take a holistic approach to serving students and serve as a liaison with other departments and services on campus. Supplemental academic advisors assess students' needs on an individual basis and, as needed, refer students to academic departments, career services, counseling services, tutoring, financial aid, residence life, or the health center.

Tutoring services are offered by highly trained upper class students, as well as by CAAS faculty members. Student tutors provide support for most freshman and sophomore level courses, with emphasis on English, math, and sciences. Faculty members provide support with math, as well as reading and writing for academic purposes, at all levels of study. Student tutors are available by appointment Mon-Fri 8:30 a.m. – 8:00 p.m. Faculty members are available on a walk-in and appointment basis during posted office hours.

Mentoring services are provided by Hawk Mentors, a group of highly trained and highly motivated upper class students. Hawk Mentors serve as "voices of experience" to a protégé group of incoming first-year students, whom they support in the process of transitioning from high school to college. Hawk Mentors provide resources and information in the areas of academic achievement, co-curricular involvement, and leadership, as well as model the core values of academic success: Engagement, Persistence, Leadership and Excellence. **For additional information, contact the Center for Access and Academic Success at 410-651-6254 or caas@umes.edu.**

Services for Students with Disabilities

The Office of Disabled Student Services (DSS) assures the commitment of the University of Maryland Eastern Shore to providing access and equal opportunity to students with disabilities. Integration into the mainstream of campus life and empowerment are top priorities of DSS. Although there is no special curriculum for students with disabilities, DSS is designed to assist students in maximizing their academic potential. DSS focuses on supporting the positive development of students with disabilities. **For additional information, contact the Coordinator of the program at 410-651-6461.**

CENTER FOR INTERNATIONAL EDUCATION

The purpose of the Center for International Education is to provide a conducive environment that will support the educational, cultural and social interactions among international students/scholars, domestic students, faculty, staff, and the community. The Center will promote global education through student study/research abroad programs and faculty research and teaching abroad. **For additional information contact the Center for International Education at 410-651-8385 or 6079 or oiiss@umes.edu.**

Goals: The goals of the Center of International Education are as follows:

- Facilitate internationalization of the curriculum and promote greater involvement of all students in significant international education experiences.
- Facilitate efforts to ensure that research and scholarship pertaining to international matters permeate disciplinary and interdisciplinary fields.
- Create and maintain a stimulating and supportive academic and cultural environment for international students and scholars and UMES study abroad students.
- Provide support to increase the international activities of faculty and staff.
- Develop partnerships and collaborations with some USM campuses and/or other institutions of education to support globalization efforts.

Objectives: The objectives are as follows:

1. Organize and conduct seminars and other activities to facilitate cross-cultural communication and awareness.
2. Encourage, advise, counsel and mentor American students at UMES to participate in Student Study/Research Abroad programs.
3. Advise, counsel and mentor international students at UMES.
4. Coordinate UMES managed Student Study/ Research Abroad Programs.
5. Coordinate campus-wide Faculty Research/ Teaching Abroad Programs.
6. Coordinate campus-wide International Scholars-in-Residence initiatives in the Division of Academic Affairs.

OFFICE OF COMMUNICATIONS

“Discover UMES” is an activity designed to strengthen experiential learning opportunities in the field of broadcasting and communications for UMES students. **For additional information, please contact Mrs. Erika L. Forsythe, Producer, Discover UMES, (410) 651-8070 or (443) 366-3145; or elforsythe@umes.edu or www.umes.edu.**

OUTREACH PROGRAMS

Under the leadership of the Office of Academic Affairs, UMES offers outreach programs as follows:

GAPP Workshop: The Gross Anatomy Pre-matriculation Preparation Workshop (GAPP) is a 14 day, summer pre-matriculation workshop that prepares future Physical Therapy, Physician Assistant, Medical, and Dental students for the pace, content, and volume of a health professional gross anatomy course. **Eligibility:** Open to students who have been accepted to, but not yet entered, Physical Therapy, Physician Assistant, Medical, or Dental School. Documentation of acceptance is required. Preference will be granted to pre-physical therapy students accepted to UMES. A maximum of 32 students will be accepted. **Contact Person(s):** Cynthia Gill **Mailing Address:** Department of Physical Therapy UMES Hazel Hall, Suite 2093 **Telephone Number:** 410 651-6301 **Email Address:** ptdept@umes.edu.

Geospatial Information Technologies and Water Quality Management Internship Program: Twelve to twenty students attend each year to learn about Geographic Information Systems (GIS), Global Positioning Systems (GPS), and Remote Sensing and how these technologies are used and relate to Nutrient Management and other environmental issues. **Eligibility:** Students must be in the 10th through 12th grades and must have a GPA of 3.0 or better. **Contact Person(s):** Tracie J. Earl, Arthur Allen. **Mailing Address:** GeoTech Lab, Crop Research & Aquaculture Bldg. **Telephone Number:** For Tracie: 410-651-6383 (office) 443-235-8928 (cell) For Dr. Allen: 410-621-2876 (office). **Email Address:** tjearl@umes.edu, alallen@umes.edu

Human Ecology Pre-College Educational Enhancement Program: An innovative two-part program, that begins with a college prep course in the summer and two college courses during the fall and spring, respectively, designed to address the need of qualified Family and Consumer Sciences (FCS) educators and Registered Dietitians (RDs). The program will consist of: 3 College-level courses offered for credit for a total of 7 college credits. The grant provides funding for two student cohorts. There will be **8 slots available for the first cohort, and 10 slots available for the second cohort.** **Eligibility:** Local High School juniors who are going to the 12th grade with at least a 2.75 GPA; who demonstrate an interest in Family Consumer Sciences, Child development or Dietetics; and who will commit to taking 3 courses in the Department of Human Ecology **Contact Person(s):** Dr. Nina Lyon Bennett. **Mailing Address:** Department of Human Ecology, Richard A. Henson Center, Princess Anne, MD 21853. **Alternate Contact:** Mrs. Malinda Cecil (410)651-7578. **Telephone Number:** (410)651-6063 **Email Address:** nlbennett@umes.edu.

MARS Camp: Two-week residential, summer enrichment program for high school and middle school students. MARS provides courses aimed at engaging students in mathematical and science problem solving using various innovative techniques. **Eligibility:** Middle/high school students, essay, problem solving samples, 2 teacher recommendations, FASFA form. (For scholarships) (see www.umes.edu/MARS) **Contact Person(s):** Dr. Karen Verbeke. **Mailing Address:** 2023/2025 Hazel Hall. **Telephone Number:** 410-651-7958. **Email Address:** mlhall@umes.edu.

National Youth Sports Program (NYSP): Since 1968, the National Youth Sports Program (NYSP) has combined sports instruction with exciting educational programs. **Eligibility:** Enrollment is open to all youngsters in the community between the ages of 8-16. A non-refundable registration fee of \$75.00 per child is required. A medical examination by a physician is required before participation. NYSP is **not** responsible for accidental medical insurance **Contact Person:** Ms Beatrice Nelson. **Mailing Address:** Department of Exercise Science, UMES, William P. Hytche Athletic Center. **Telephone Number:** 410-651-7763. **Email:** banelson@umes.edu

Reach For The Stars Program: This program is designed to introduce participants to knowledge, skills and abilities which will familiarize them with STEM (Science, Technology, Engineering, Math) careers and encourage them to consider related career paths. **Eligibility:** Gifted, youth at risk and students with disabilities from Wicomico, Somerset and Worcester Counties. **Contact Person(s):** Dr. William Talley & Ms. Brenda Dingwall. **Mailing Address:** Department of Rehabilitation, UMES, 1113 Hazel Hall, Princess Anne, MD 21853-1299 (Dr. Talley) and Wallops Flight Facility, Equal Opportunity Office, Wallops Island, VA 23337 (Ms. Dingwall). **Telephone Number:** 410 651-6261 (Dr. Talley) & 757 824-1412 (Ms. Dingwall). **Email Address:** wbtalley@umes.edu (Dr. Talley) & brenda.j.dingwall@nasa.gov (Ms. Dingwall).

Summer Enrichment Academy: This program is designed to provide fall entrants the opportunity to get a head start on their academic careers by taking two 3-credit courses (English and Mathematics) during the summer. **Eligibility:** Any freshman new admits for the fall semester. **Contact Person(s):** Ms. Wanda Anderson or Ms. Robin Burton. **Mailing Address:** Center for Access and Academic Success, 2200 Student Development Center. **Telephone:** 410-651-8312 (Dr. Wanda Anderson) or 410-651-8312 (Ms. Robin Burton). **Email:** wanderson@umes.edu or rlburton@umes.edu.

Upward Bound Program: Upward Bound is a pre-college program that provides fundamental support to high school students in their preparation for college entrance. The program provides opportunities for students to succeed in pre-college performance and, ultimately, in higher education pursuits. Upward Bound is a year-round program and serves students in Somerset, Wicomico, and Worcester counties. The ultimate goal of Upward Bound is to increase the rates at which students enroll in and graduate from institutions of postsecondary education. Upward Bound provides instruction in mathematics, laboratory sciences, English, literature, and foreign language. College students are employed as tutors during both the academic year and summer session. **For additional information, please call 410-651-6458.**

CENTER FOR INSTRUCTIONAL TECHNOLOGY

The Center for Instructional Technology at UMES assists faculty and students in all aspects of e-learning including hosting, training, development, and support of the Blackboard CE 6 Learning Management System, the Blackboard Portfolio System, Respondus, and Tegrity. Additionally, the Center for Instructional Technology runs an official Microsoft IT Academy and Certification Testing Center as well as supports the Eastern Shore E-Learning Symposium. Founded in 2006, the Center for Instructional Technology is supported by a grant awarded through Title III. The Center is located in 1106 Wilson Hall and is open Monday through Friday during normal business hours. **For additional information, please contact the Mr. Kaye Pinhey at kdpinhev@umes.edu or (410) 651-7574.**

CHILD AND FAMILY DEVELOPMENT CENTER

The UMES Child and Family Development Center (CFDC), located in the Early Childhood Research Building, is a Maryland State Department of Education licensed preschool environment for seventy-two children ages six-weeks through school-age. One director, five full-time classroom teachers, supporting full-time staff and UMES students manage the full-day program that is in operation year-round and serves University students, staff and faculty and the local community. The CFDC is committed to facilitating children's growth and development in an enriched, supportive environment. A hands-on thematic based curriculum, *The Creative Curriculum*, encourages children to direct their own learning experiences within a proactive environment. Tuition fees are reasonable and are set on a sliding fee scale. Purchase of Care funds are accepted. **For additional information regarding the UMES Child and Family Development Center visit the Center's website: <http://www.umes.edu/Academic/SANS/HE/CFDC/> or contact the director, Dr. Donna Long at 410-651-6173.**

THE UNIVERSITY SHOPPE

The University Shoppe is the Department of Human Ecology's student-operated business on the campus. The University Shoppe provides students with on-the-job experience and hands-on applications of buying, marketing, merchandising, and advertising concepts. The University Shoppe carries a variety of gift items, including UMES paraphernalia, jewelry, home furnishings, glassware, ceramic figurines, stationery, and miscellaneous craft items. Amenities for guests of and visitors to the Richard A. Henson Hotel and Conference Center are also available. **For additional information, please contact 410-651-6567 or 410-651-6056.**

RESEARCH ENVIRONMENT

UMES conducts research and creative endeavors in agricultural, environmental, and marine sciences; mathematics and computer applications; allied health; and other fields. State-of-the-art chemistry and biology laboratories, computer facilities supported by the latest software, and library research capabilities are available. Faculty and students work collaboratively with such organizations as ICF Kaiser Engineering; Kellogg Foundation; the National Institutes of Health; the Agency for International Development; the U.S. Departments of Agriculture, Commerce, Defense, Education, Energy, Health and Human Services, and Interior, the National Science Foundation, the National Aeronautics and Space Administration (NASA), and over 50 other external funding sources. Because of its status as an 1890 Land-grant institution, the University receives annual federal appropriations to support research in the food and agricultural sciences.

ADMINISTRATIVE AFFAIRS

www.umes.edu/

The Division of Administrative Affairs provides services to enhance and support the University's learning, inquiry and engagement goals. The Division administers policies and procedures, plans and maintains facilities, manages the campus' financial affairs, insures the safety and welfare of students, faculty, staff, visitors and facilities, enhances campus efficiency and effectiveness through computer utilization, and improves and expands services offered to campus clientele to support the overall mission of the University. Incorporated in this component are the following functional divisions: (1)Auxiliary Enterprises; (2) Budget; (3) Comptroller's Office; (4) Human Resource Management; (5) Office of Sponsored Research Programs; (6) Plant Operation and Maintenance; (7) Procurement; (8) Public Safety; (9) Residence Life; (10) The Richard A. Henson Center and (11) University Dining Services. Administrative Affairs is committed to providing quality service its our customers.

TUITION, FEES, AND EXPENSES

Fee charges are subject to change with approval by the Board of Regents. All charges are announced in advance. A schedule of charges is available from the Office of Administrative Affairs. Notwithstanding any other provision of this or any other University publication, the University reserves the right to make changes in tuition, fees, and other charges at any time such charges are deemed necessary by the University and the University System of Maryland Board of Regents. For the 2009-10 academic year, the fee structure will tentatively be as follows:

FULL-TIME TUITION AND FEES¹

Students enrolled for twelve (12) or more credit hours pay the full amount of fixed charges.

Maryland Residents

	Per Semester	Per Year
Fixed Charges		
Tuition	\$2,056.00	\$4,112.00
Mandatory Fees		
Athletic	275.00	550.00
Student Activities	38.00	76.00
Recreational Activities	350.00	700.00
Student Union	250.00	500.00
Technology Fee	<u>72.00</u>	<u>144.00</u>
Total MD Resident	\$3,041.00	\$6,082.00

Non-Maryland Resident^{1,2}

	Per Semester	Per Year
Tuition	5,668.00	11,336.00
Mandatory Fees	<u>985.00</u>	<u>1,970.00</u>
Total Non-MD Resident	\$6,653.00	\$13,306.00

¹Notwithstanding any other provision of this or any other University publication, UMES reserves the right to make changes in tuition, fees and other charges at any time such changes are deemed necessary by the University System of Maryland Board of Regents.

²All Fees are subject to annual adjustments.

Room	ADDITIONAL CHARGES ^{1,2}	
	Per Semester	Per Year
Traditional Double	1,965.00	3,930.00
Single	2,300.00	4,600.00
Hawks Landing	2,250.00	4,500.00
Student Residential Complex	2,065.00	4,130.00
Board (Meal Plan) ³		
19 Meal Plan w/\$100 annual food points	1,650.00	3,300.00
14 Meal Plan w/\$100 annual food points	1,550.00	3,100.00
*5 Meal Plan w/\$50 annual food points	630.00	1,260.00

PART-TIME TUITION AND FEES¹

Part-time students are required to pay the undergraduate part-time rates per credit hour as listed below.

Undergraduate rate per credit hour (eleven credits or less)

Maryland Residents

Graduate	\$243.00 per credit hr.
Undergraduate (11 cr. hrs. or less)	171.00 per credit hr.
Student Fee	33.00 per semester
Technology Fee	10.00 per semester

Non-Maryland Resident

Graduate	\$441.00 per credit hr.
Undergraduate	417.00 per credit hr.
Student Fee	33.00 per semester
Technology Fee	10.00 per semester

Supplementary Charges/Fees (all students applicable)

Commencement Fee	\$35.00
Credit-by-examination Fee	
Per Semester Hour Credit	30.00
Application Fee (Undergraduate)	25.00
Protested Check	25.00
Laboratory Fees (per course)	25.00
Library (varies)	
Lost Bar Code	0.50
Overdue Book (per day)	0.50
Overdue Laptop (per ½ hour)	10.00
Lock Replacement Charge	
Lost Keys	100.00
Total Lock Replacement	250.00
Lost HAWK EXPRESS Card	15.00
Damaged HAWK EXPRESS Card	5.00
Motor Vehicle Registration	20.00
Late Registration Fee	25.00
Transcript of Academic Record ⁴	FREE

¹Notwithstanding any other provision of this or any other University publication, UMES reserves the right to make changes in tuition, fees and other charges at any time such changes are deemed necessary by the University System of Maryland Board of Regents.

²All Fees are subject to annual adjustments.

³Students residing in the traditional Residence Halls and the Student Apartments are required to be on the board plan.

⁴A transcript of a student's record will not be furnished to any student or alumni unless the student's financial obligations to the University have been satisfied.

GENERAL REGULATIONS REGARDING PAYMENT OF FEES AND EXPENSES

Payment by Check or Money Order

All checks and money orders should be made payable to UMES for the exact amount. In most cases, payment should be made at the Office of Student Accounts, unless otherwise instructed.

Returned Checks

Any checks returned for any reason will result in a returned check fee of \$25.00. The student's account will thereafter be stamped "No Personal Checks" and all future payments must be paid by cash, money order, credit card (Visa, MasterCard), or cashier's check.

Payments from Scholarship Funds

A student awarded a Legislative Scholarship and/or grant will have the amount of the award applied towards his/her account in the Office of Student Accounts. However, all fees not covered by the scholarship/grant must be paid by the scheduled dates of payment, or the student will be withdrawn from the University. This applies to veterans as well.

No student whose account is in arrears will be admitted to classes or to the Dining Hall. Any student indebted to the University is likewise prevented from having a degree conferred or a transcript released until the total debt is cleared.

Collection Procedures of Past Due Accounts

In accordance with State of Maryland regulations, past due accounts are subject to a collection fee of 17% and are forwarded to the Maryland State Central Collection Unit for further action.

Refund of Fees for Change in Registration

Students who officially change their enrollment status from full-time to part-time (eight hours or less) by dropping a course or courses will be eligible for a refund in accordance with the following:

1. If the change in enrollment status occurs during the first two weeks following the beginning of classes, fees will be assessed on the basis of the appropriate part-time fees plus 25% of the difference between the full-time and the appropriate part-time fees.
2. The effective date of the change in registration is the date the change is filed in the Office of the Registrar. No refund will be processed for changes in registration which occur after the first two weeks of classes.

Property Damage Fees

Students will be charged for damage to property or equipment. Where the responsibility for the damage can be fixed, the student will be billed. Where responsibility cannot be fixed, the cost of repairing the damage or replacing equipment will be prorated among all individuals held responsible.

IN-STATE STATUS

General Policy

It is the policy of the University of Maryland Eastern Shore to grant in-state status for admission, tuition, and charge-differential purposes as defined by the University of Maryland Policy on Student Residency Classification for Admission, Tuition, and Charge-Differential Purposes (see complete policy below).

Procedures for the Determination of In-State Status for Admissions, Tuition, and Charge-Differential Purposes

An initial determination of in-state status for admission, tuition, and charge-differential purposes will be made at the time a student's application for admission is under consideration. The determination made at that time, and any determination made thereafter, shall prevail for each subsequent term unless the determination is successfully challenged in a timely manner.

A student may request a re-evaluation of residency status by filing an Application for Change in Residency Classification (hereinafter referred to as Application). A student must meet the requirements for in-state status and submit a completed Application (including all documents therein) by the last day of late registration for the term the student wishes to be classified as in-state. No change in status requested by the student shall be given retroactive effect prior to the term for which a timely Application was filed. A student may file only one Application per term.

A determination of in-state status is valid only if a student actually enrolls in the term in question. Determinations which are made in cases where the student does not actually enroll are not valid for a subsequent term, with respect to which, requirements must be independently satisfied and a new and timely Application submitted.

Change of In-State Status

Students classified as in-state for admission tuition and charge-differential purposes are responsible for notifying the Office of Admissions in writing within 15 days of any change in their circumstances which might in any way affect their classification.

University of Maryland Policy on Student Residency Classification for Admission, Tuition and Charge-Differential Purposes.

I. POLICY

A. It is the policy of the Board of Regents of the University of Maryland System to recognize the categories of in-state and out-of-state students for purposes of admission, tuition, and charge differentials at those institutions where such differentiation has been established. The student is responsible for providing the information necessary to establish eligibility for in-state status.

1. Students who are financially independent or financially dependent, as hereinafter defined, shall have their residency classification determined based on permanent residency. For purpose of this policy, a permanent residence is a person's permanent place of abode as determined by the following criteria. Such students will be assigned in-state status for admission, tuition, and charge differential purposes only if the student (if financially independent) or the student's parent, guardian or spouse (in the case of a financially dependent student):
2. Owns or rents and occupies living quarters in Maryland. There must exist a genuine deed or lease in the individual's name reflecting payments/rents and terms typical of those in the community at the time executed. Persons not having such a lease may submit an affidavit reflecting payments/rents and terms as well as the name and address of the person to whom payments are made which may be considered as meeting this condition. As an alternative to ownership or rental of living quarters in Maryland, a students may share living quarters in Maryland which are owned or rented and occupied by a parent, legal guardian, or spouse;
3. Maintains within Maryland substantially all personal property;
4. Pays Maryland income tax on all earned taxable income including all taxable income earned outside the State;
5. Registers all owned motor vehicles in Maryland in accordance with Maryland law;
6. Possesses a valid Maryland driver's license, if licensed, in accordance with Maryland law;
7. Is registered in Maryland, if registered to vote;
8. Receives no public assistance from a state other than the State of Maryland or from a city, county or municipal agency other than one in Maryland; and,
9. Has a legal ability under federal and Maryland law to reside permanently without interruption in Maryland.
10. Is not residing in the State of Maryland to primarily attend an educational institution.

B. In addition to meeting all of the criteria set forth in the preceding section, to qualify for in-state status on the basis of permanent residence, a student or, if the student is financially dependent, the parent, legal guardian, or spouse, must have resided in Maryland for at least twelve (12) consecutive months immediately prior to and including the last date available for late registration or the forthcoming semester or session and must have continuously resided in Maryland during the period.

C. If a student is financially dependent as hereinafter defined, the permanent residence of the parent, guardian, or spouse on whom he/she is dependent shall determine in -state status. If a student is financially independent, the permanent residence of the student shall determine in-state status.

D. In-state status based on permanent residence is lost at any time a financially independent student establishes a permanent residence outside the State of Maryland. If the parent, guardian, or spouse through whom a financially dependent student has attained in-state status establishes a permanent residence outside the State of Maryland, the in-state status is lost. In each instance, the student will then be assessed out-of-state tuition and charges beginning the next semester or session.

E. In addition, the following categories of students shall have in-state status:

- 1) A full-time or part-time (at least 50 percent time) permanent employee of the University of Maryland System;
- 2) The spouse or dependent child of a full-time or part-time (at least 50 percent time) permanent employee of the University of Maryland System;

- 3) A full-time active member of the Armed Forces of the United States whose home of residency is Maryland or one who resides or is stationed in Maryland, or the spouse or a financially dependent child of such a person; and
- 4) A Graduate Assistant.

Students not entitled to in-state status under the preceding paragraphs shall be assigned out-of-state status for admission, tuition, and charge-differential purposes.

II. PROCEDURES

A. The date on which conditions for in-state classification must be met is the last published date to register for the forthcoming semester or session. In those instances where an entering class size is established and where an application deadline is stated, institutions may require that conditions for in-state classification must be satisfied as of the announced closing application date.

B. A change in status must be requested in writing by a student prior to the last published date of registration in order to be effective for the semester or session. A student applying for a change of in-state status must furnish appropriate documentation as required by the institution.

C. The student shall notify the institution in writing within fifteen (15) days of any change of circumstances which may alter in-state status.

D. In the event incomplete, false, or misleading information is presented, the institution may, at its discretion, revoke an assignment of in-state status, in addition to other disciplinary actions provided for by the institution's policy.

E. Each institution of the University of Maryland System shall develop and publish additional procedures to implement this policy. Procedures shall provide that on request the President or designee has the authority to waive any residency requirement as set forth in IA and IB, if it is determined that the student is indeed a permanent resident and application of the criteria creates an unjust result. Such procedures must provide for appeal to the President or designee of any residency determination using a system-wide petition form. These procedures shall be filed with the office of the Chancellor.

III. DEFINITIONS

A. Financially Dependent: For purposes of this policy, a financially dependent student is one who is claimed as a dependent for tax purposes, or who receives more than one-half of his or her support from a parent, legal guardian, or spouse during the twelve (12) month period immediately prior to the last published date for registration for the semester or session. If a student receives more than one-half of his or her support in the aggregate from a parent and/or legal guardian and/or spouse, the student shall be considered financially dependent on the person providing the greater amount of support.

B. Financially Independent: A financially independent student is one who (1) declares himself or herself to be financially independent as defined herein; (2) does not appear as a dependent on the Federal or State income tax return of any other person; (3) receives less than one-half of his or her support from any other person or persons; and (4) demonstrates that he or she provides through self-support one-half or more of his or her total expenses.

C. Parent: A parent may be a natural parent, or, if established by a court order recognized under the law of the State of Maryland, an adoptive parent.

D. Guardian: A guardian is a person so appointed by a court order recognized under the law of the State of Maryland.

E. Spouse: A spouse is a partner in a legally contract marriage.

F. Support: Except as set forth in (2) of this section, support shall mean financial or material support, including gifts, services, and trusts, including income or benefits derived from one's family. Support shall not include grants, stipends, awards, and benefits (including Federal and State student aid, grants, and loans) received for the purpose of education or by virtue of an individual's status or prospective status as a student. Such resource shall not be considered in calculating a student's financial dependence or independence.

AUXILIARY ENTERPRISES

Auxiliary Enterprises is composed of five units – Auxiliary Services, Student Security, University Dining Services, Richard A. Henson Center and the UMES Post Office.

Mission

Consistent with the University's mission, Auxiliary Enterprises exists to enhance and support the institution's learning, inquiry, and engagement goals. The unit further seeks to provide these services to the campus community in the most effective and efficient manner. Services include: Student Dining, Catering, Snack Bar, Faculty & Staff Dining, Concessions, Mail Service, Hotel Accommodations, Conferencing, Laundry, Bookstore, Greyhound Bus Service, Student ID Cards, Phone Services, Vending, and Student Security.

Hawk Center

The HAWK CENTER is the pulse of Auxiliary Enterprises. It serves as the service center for the UMES Community and special programs. The HAWK CENTER is located on the 2nd floor of the Student Services Center. Hours of operations for payments are 8:30 a.m. to 3:30 p.m., Monday through Friday. All other services are available Monday through Friday from 8:30 a.m. to 4:30 p.m.

Services Available

Student Account Payments - Students are able to conduct student accounts business at the HAWK CENTER. Hours of operations are 8:30 a.m. – 3:30 p.m., Monday through Friday. Payments are accepted and placed directly onto a student account. Individuals can pay using cash, money order, cashier check, bank check or credit card.

Check Cashing - The HAWK CENTER functions as an agent for the Office of Student Accounts and administers check cashing services for registered UMES students. Students may cash one personal check per week not to exceed \$50.00. Money Orders and Cashier Checks will be cashed up to \$150.00 as long as funds are available. There is a \$1.00 service fee for cashing of checks and/or money orders. No starter checks or post dated checks will be accepted. If a check is returned to the University for any reason, that individual will lose his/her check cashing privileges. Services are provided throughout the academic year at the HAWK CENTER. This service is available during regular business hours: Monday through Friday 8:30 a.m. - 3:30 p.m.

Credit Card Payments - Credit Card payments are accepted by calling the HAWK CENTER (410-651-7747) during regular business hours. Visa, MasterCard and Discover cards are accepted. Transactions must be \$10.00 or more. Credit cards are accepted only from the authorized card holder. A Credit Card Transaction Form is maintained on transactions done over the telephone. Credit card transactions are processed while the individual is on the phone and an authorization number is given at the time of the transaction. The telephone number from which the person is calling is recorded along with an additional telephone number.

Hawk Express Card - The HAWK EXPRESS Card is the official UMES ID card. Faculty, staff and students are issued their first card at no cost. Replacement cost is \$15.00 for lost and stolen cards. A fee of \$5.00 is charged for the replacement of damaged cards. Cards which malfunction with no apparent damage are replaced at no charge to the individuals. A new card is issued and account balances transferred. However, value stored on the Vend Stripe may be lost. Lost or stolen cards should be reported immediately to the HAWK CENTER during regular business hours. Individuals who loses their cards after hours, must contact any area that has a card reader. The person receiving the report will place a hold on the card until it can be reported to the HAWK CENTER. Individuals who have obtained a password can visit the HAWK CAMPUS Center at www.umes.edu/auxiliary to suspend the use of their card.

The HAWK EXPRESS Card is a permanent card, non-transferable and is the property of the University of Maryland Eastern Shore. It must be surrendered upon request. Students must carry their HAWK EXPRESS Card at all times for prompt identification. A penalty fee of \$25.00 is charged to individuals who allow another person to use their card.

Hawk Campus Center - The HAWK CAMPUS CENTER is an Internet browser-based 24-hours a day, 7 days a weeks on-line interactive gateway to many Auxiliary Services. Individuals are able to view accounts, transfer funds from one account to another account, add a meal plan, use the Box Office, Vote on line, established a Who's Who and access many other available services. The HAWK CAMPUS CENTER can be reached through the University of Maryland Eastern Shore web page, which can be found at www.umes.edu. Click on the Auxiliary icon located on the center of the page. The HAWK CAMPUS CENTER is only available to University of Maryland Eastern Shore students and staff. Students may request a parent's password by filling out a "Request for Parents Password". All users will have to log onto the system with their login name and a password initially assigned by Auxiliary Enterprises. Users can then change their password to anything they want.

Vend-Stripe Account - Each HAWK EXPRESS Card has two stripes located on the back on the card. The large stripe is used for the access and the HAWK EXPRESS Account. The small stripe is called the Vend Stripe. It is encoded with a unique number which allows it to be used only on the University of Maryland Eastern Shore campus. Value can be added either with cash or by transferring funds from one's HAWK EXPRESS Account to one's Vend-Stripe. The maximum deposit is \$50.00; however it is highly recommended that individuals keep only a small amount on this stripe at any given time. If a card is lost, stolen or malfunctions, value stored on the Vend-Stripe will be lost.

Fund Locations - Funds may be added at the following locations: University Terrace; ORL HMAT; University Police Department; Student Services Center; or any snack machine located throughout the campus.

Hawk Express Account - The HAWK EXPRESS Account is a flexible account, which allows an individual to make purchases on a debit basis. An individual can open an account by simply placing funds into his/her account. There is no minimum amount required. Funds can be added by one of the following means: Cash; Check - (Payable to: University of Maryland Eastern Shore) Money Order - (Payable to: University of Maryland Eastern Shore); Credit Card (Visa, MasterCard or Discover); HAWK CASH CENTER located in the Student Services Center. Cash, check, money order and credit card payments can be done at the HAWK CENTER during regular business hours. Payments are posted immediately and are available to the individuals immediately. **Funds can be sent by mail to: HAWK CENTER, 30665 Student Services Center Lane, University of Maryland Eastern Shore, Princess Anne, MD, 21853.**

Funds can be added via telephone by calling the HAWK CENTER at 410-651-7747. Information that will be requested and kept on file will be: Student's Name, Campus ID Number or SSN, person to whom the credit card belongs, home address, city, state and zip code, home phone number, amount to be posted, credit card type, account number of credit card, expiration date of credit card.

The University has designated areas in which individuals can use the HAWK EXPRESS Card, which are The Plateau; HAWKS Nest; OASIS; UMES Bookstore; HAWK CENTER; Student Services Center; UMES Health Center; ORL Resource Center; and Greyhound-Trailways--(campus only). **Auxiliary Enterprises reserves the right to correct all transaction errors regardless of source.** Auxiliary Enterprises is not responsible for any funds transferred to this section of the card.

Hawk Express Phone System (HEPS) - The HAWK EXPRESS Phone System (HEPS) allows students to make local or long distance calls from any location on campus on a debit-basis. A \$10.00 fee is required to open an account and individuals must maintain at least \$5.00 in their accounts in order to place a call. Local calls are \$0.15 for unlimited time. Calls made within the continental United States, Puerto Rico, and the U.S. Virgin Islands are \$0.12 per minute.

To open an account, an individual must report in person to the HAWK CENTER during regular business hours (8:30 a.m. to 3:30 p.m., Monday through Friday). Once the account is open, the individual will be issued a pin number to be used each time a call is made. Once the balance falls below \$5.00, the individual will not be able to make any more calls until such time as more funds are added. Funds can be added at the HAWK CENTER or one of the HAWK CASH CENTERS located at: University Terrace; ORL HMAT or the University Police Department. Problems associated with HEPS should be reported to the HAWK CENTER during service hours.

Hawk Copier Service - Card operated copiers are in the Frederick Douglas Library. The HAWK EXPRESS Vend-Stripe Account can be used for this service. Funds can be added either at one of the HAWK CASH CENTERS or any snack machines located throughout the campus. Individuals who have funds in their HAWK EXPRESS Account can also transfer funds to their Vend-Stripe at any HAWK CASH CENTER. For small number of copies, individuals can have that service done at the HAWK CENTER during regular service hours. The cost is \$0.10 per copy.

University Printing and Document Services - Individuals wishing to have copies made or binding completed can do so for a nominal fee at the HAWK COPY CENTER. Only the HAWK EXPRESS Card is accepted. At no time is CASH OR CHECK ACCEPTED. To add funds to use at the COPY CENTER, an individual must report to the HAWK CENTER. Funds will either be placed in one's HAWK EXPRESS ACCOUNT or a receipt will be generated to take to the HAWK COPY CENTER. Departments that wish to create a copy account should submit a University of Maryland Eastern Shore Auxiliary Enterprises BOOKSTORE 2000/HAWK COPY CENTER fund transfer form to have funds posted to their copy account for use at the HAWK COPY CENTER.

Hawkmat - Within each residential facility is a card operated laundry facility. Individuals are able to use their Vend – Stripe account, if funds are available, to utilize the washers and dryers. Each washer and dryer has a number assigned to it. This number is used when attempting to start a washer or dryer. Individuals should report any washer or dryer not working to the HAWK CENTER during service hours or email hawkcenter@umes.edu. Every attempt will be made to have washers or dryers back in service within a 24 hour period. When reporting malfunctioning washer or dryer, the following information will be needed: the location of the washer or dryer, the number assigned to the washer or dryer, the nature of the problem as complete as possible. If there was a loss of funds, it should be indicated at that time. For refunds, an individual must report in person to the HAWK CENTER during service hours.

Hawk Vending - Vending machines are located throughout the campus. Upkeep of machines is done through the Office of Auxiliary Enterprises. Individuals who lose money should report in person to the HAWK CENTER during regular business hours to receive a refund. Student refunds are placed directly on their Vend-Stripe. Faculty, staff and visitors can receive cash refunds. Individuals must complete a Vending Refund Form prior to receiving their refund. Problems associated with vending machines should be reported to the HAWK CENTER by calling extension 7747 during regular business hours or email hawkcenter@umes.edu.

Room Deposits - Room deposits are accepted and placed directly on an individual's student account. The deposit fee is set by the Office of Residence Life. Payments are accepted in the form of check, money order, cash, HAWK EXPRESS CARD and credit card. Return students who paid their room deposit in person are required to take their receipt to the Office of Residence Life to complete the room deposit process. Deposits received via the mail receipts are forwarded to the Office of Residence Life. This process is by hand delivery only and never via the mail.

Greyhound - Greyhound ticket sales are available to UMES Community and surrounding area during regular business hours. The HAWK CENTER serves as a ticket agent for Greyhound. Tickets can be purchased using cash and the HAWK EXPRESS CARD. Greyhound offers a price adjustment when tickets are purchased 7 days in advance. Bus schedules can be viewed www.greyhound.com or visit the HAWK CENTER located second floor of the Student Services Center.

FINANCIAL AID

The University is particularly sensitive to the financial needs of its student body. Operating on the premise that no student should be denied an education solely because of a lack of financial resources, the University's Office of Student Financial Aid renders assistance to as many students as possible in the form of employment, scholarships, grants, and student loans. Qualifying students may receive funds from one or more of the programs administered by the University and funded from federal, state, and institutional sources. Since student financial aid *is not* automatically renewed, *students must re-apply each year* in order to be considered for assistance.

Since it is the students who gain the benefits of a higher education, it is reasonable to expect students to contribute to the cost of their education to the fullest extent possible. **For additional information, please contact the Office of Financial Aid at (410) 651-6172.**

HOW TO APPLY FOR FINANCIAL ASSISTANCE

There are essentially two types of financial assistance: *need-based*, which is determined by personal and/or family income levels, and *merit scholarships*, which are based on special achievements of the student rather than income.

Students applying for need-based financial assistance from federal, state, or institutional sources must submit the Free Application for Federal Student Aid (FAFSA) in order to qualify for the widest range of financial assistance. The Free Application for Federal Student Aid (FAFSA) should include the **UMES school code (002106)**. The priority deadline is March 1st of each year for the upcoming fall semester. It is very important that all students seeking financial assistance contact the Office of Student Financial Aid and submit all necessary forms. Missing the priority deadline can seriously impact eligibility for financial assistance. Other information may be required on a case by case basis. If the Office of Student Financial Aid does not electronically receive information from the federal government, a hard copy of the Student Aid Report (SAR) must be submitted to the Office of Student Financial Aid.

FOLLETT BOOKSTORE

The UMES Bookstore provides course materials (both new & used), general reading books and references, school and office supplies, computer products, and official UMES sportswear and paraphernalia to the university family. Custom Greek apparel and accessories can be special ordered in the store or purchased online at www.efollettgreek.com. The bookstore, which is located in the Student Services Center, accepts the Hawk Express, cash, checks, and all major credit cards. Items can be purchased online at www.umes.bkstr.com.

Cash for Books

No matter where students bought them, Follett will buy them back. Prime book buyback time is during finals. That's when the bookstore knows the most about needs for the next semester, and when the bookstore has the least inventory. This means that students are likely to get the best price on what they sell back.

Where to Find Us

The bookstore is located on the first floor of the Student Services Center, or visit the bookstore on the web at www.umes.bkstr.com.

UNIVERSITY HOUSING/RESIDENCE LIFE

There are eight (8) residential communities in the University's array of housing options. Combined, these facilities accommodate 2100 residents. Housing options range from traditional double-loaded corridor types to apartments with single bedrooms. Included are unique options such as apartments with full kitchens. Students who reside in the efficiency apartment communities are not required to purchase a meal contract. The Office of Residence Life (ORL) oversees the operation of all University housing and strives to promote a living environment which respects the privacy and security of on-campus residents and, perhaps more importantly, encourages the creation of good academic habits, non-traditional learning and managed social opportunities. All residential facilities have policies which incorporate quiet hours for the purpose of study and rest and restricted hours for disruptive group activities.

In order for students to acquire on-campus lodging, a completed application, room deposit, and housing contract must be filed with Residence Life in advance of the upcoming semester for which housing is desired. The deposit is applied towards the student's account to assist in covering future charges. It is refundable by notifying the ORL in writing by August 1 for the fall semester and January 1 for the spring semester. Failure to notify the ORL prior to these dates will result in a forfeiture of the deposit. Information regarding housing policies, descriptions and how to reserve an accommodation may also be obtained from the UMES website at www.umes.edu/reslife.

The Housing Contract obligates students to the conditions set forth in the Residence Life Contract Booklet. This agreement basically states that as campus residents, students are responsible for the room, furnishings, and good citizenship policies while residing in a University housing facility. A complete copy of the Residence Hall Agreement is available in the ORL or on-line. Failure to follow these terms may result in fines, University Judicial sanctions, or eviction from the residence halls.

Residence Hall visitation policy varies according to class status, residence halls, days of the week and time. Freshmen may only have inter-room visitation by the opposite sex on weekends during specified hours; weekday visitation is allowed in common areas of each residence hall. For upperclassmen (sophomores, juniors and seniors), room visitation is allowed every day from noon to midnight, with extended hours on weekends. Overnight guests of the same sex are permitted in each hall. Overnight guests of the opposite sex are not permitted. All overnight guests must be registered with the residence hall staff office which serves the specific housing area being visited.

Housing Options

There are three (3) types of University housing available: traditional halls, apartment suites, and efficiency units. The residents of traditional halls are all same sex and have a similar class standing. Within the Honors Hall, genders and classifications are mixed. Genders are separated according to floors. An apartment suite has five single rooms, a common living room and its own bathroom. An efficiency unit has two or three double bedrooms, a common living room, a kitchen and 2-3 bathrooms.

Housing Communities

Traditional Halls: Murphy Hall - Freshman Females; Murphy Annex – Upper Class & Co-ed Honors; Nuttle Hall - Freshman Males or Females (placement changes upon need); Wicomico Hall - Freshman Males; Court Plaza Hall – Freshman Males; Plaza Hall – Freshman Females; University Terrace – Freshman Females; Harford Hall – Freshman Females.

Apartment Suites: Student Apartments – Upper Class, Males/Females.

Efficiency Units: Student Residential Complex – Upper Class, Males/Females; Hawks Landing – Upper Class, Males/Females.

Rooms: Rooms in each residence hall are equipped with basic furnishings: beds, dressers, desks, chairs, and closets. Cable TV, plus HBO, telephone and internet connections are in each room. Telephone service connects students to all campus extensions at no cost. Long-distance service (including international dialing) is available from residence hall room phones by Hawk Express phone service. Students must maintain money in their Hawk accounts to use the service and must supply their own telephone. UMES supplies active telephone and internet (free) connections in each room.

End of Semester Check-out: Students must move out of the residence halls, if required, at the end of each semester. There are many established local storage companies which offer reasonable rates for short and long-term storage in the surrounding community. While students are permitted to leave personal property in the residence hall between fall and spring semester, it is not advised to do so.

Area Directors: Professional staff possessing Bachelor's and/or Master's degrees manage University housing and facilitate educational and social programming to strengthen the on-campus experience. The Director, Assistant Director, Administrative Assistant and a Clerk Typist are housed in the Central Housing Office and are responsible for effectively administering all aspects of the campus housing operation.

Non-Traditional Learning Center: The Non-Traditional Learning program is an academic component of the Office of Residence Life. The Center focuses on providing space, tools, equipment, tutorial assistance and teaching staff towards improving academic performance in Math, Science, English and Reading skills. Statistically, students spend the majority of their on-campus time in residence halls. Therefore, the need for academic support is more readily recognized by and delivered at hours well beyond the traditional class day. The Center's location is convenient and service hours are liberal including weekends. In support of this component, each residence hall is equipped with computer labs and student support staff.

Conferencing: Residence Life also assumes the leadership role of marketing University housing facilities and other major campus amenities to outside groups for workshops, conferences, reunions, sports and other enrichment camps. These ventures receive close coordination of services provided by other campus units, i.e., Recreational Facilities, Health and Wellness Center, Food/Catering needs, Multi-Purpose Meeting Rooms in addition to many other amenities offered by the University. UMES's outstanding image is only enhanced by its successful practice of good public relations.

PUBLIC SAFETY

The Department of Public Safety is responsible for the safety and security of all students, faculty and staff, as well as, the university's facilities, grounds and property. It is the goal of Public Safety to provide a safe and wholesome environment to facilitate the educational mission of the University. The Department is operational 24 hours a day, seven days a week.

Prevention Education

The Department of Public Safety distributes materials recommended by the National Crime Prevention Council and by Maryland Crime Watch on various topics. Additional information is provided to the University community through lectures, videos, bulletins, and workshops.

Emergency Telephones

There are thirteen "blue light" emergency telephones strategically located throughout the university, directly connected to the Department of Public Safety for immediate police response. Elevators have similar emergency phones that are also connected to the Department.

Motor Vehicle Registration

All motor vehicles operated on campus by UMES students, faculty, staff and visitors must be registered and display a parking permit or obtain a temporary parking permit from the Department of Public Safety, regardless of ownership. Motorcycles and motor scooters are included in the policy. Each registered vehicle is issued a parking permit that is valid for one academic year. A small fee is charged for each permit. The 1992 Maryland General Assembly passed legislation requiring all out-of-state students attending the University to secure a Non-Resident permit for the vehicle which is to be operated in the State of Maryland for more than 30 days. There is a fee associated with the permit. Contact the Maryland State Motor Vehicle Administration for details.

Campus Parking

There is ample parking at UMES. All students living on campus may have their own vehicle and are expected to park only in the designated areas for their parking permit. All Students, regardless of whether they have a University registered vehicle, are responsible for knowing the policies for operating motor vehicles on campus and are expected to park only in designated areas. Failure to do so can result in ticketing and/or towing, depending on the violation. Fines must be paid within 15 days of occurrence, or a late fee will be incurred. Violators who do not pay parking fines will have their tickets forwarded to the State's Motor Vehicle Administration for flagging of registration renewal and fines added to the student's UMES fiscal account.

STUDENT EMPLOYMENT OPPORTUNITIES

There are many opportunities available for students to work part-time on the UMES campus. Work schedules are centered around the student's class schedule for the semester, with a maximum of twenty (20) hours per workweek. Like scholarships, funding is generated from many sources; therefore, pay rates and procedures may vary.

College Workshop Program: - This is a state-funded program that employs students in various departments of the University. Student job opportunities depend on the availability of state funds. Hourly wage rates vary according to job duties and department, but are at or above minimum wage. **For additional information, please contact the Office of Human Resources at (410) 651-6400 or www.umes.edu.**

College Work-Study Program: - This is a federally funded, need-based, program open to U.S. citizens or permanent residents who meet financial need guidelines and the priority deadline. Awards are based on need and availability of funds. Students are placed both on and off campus. (Off-campus sites are at a public or private non-profit agency with which the University has entered into an agreement). The rate of pay is at or above minimum wage. An award amount is granted, and students earn payment for work up to twenty (20) hours per week; however, most awards average seven (7) to ten (10) hours per week. **For additional information, please contact the Office of Student Financial Aid at (410) 651-6172.**

Resident Assistant Program: - The Office of Residence Life regularly hires student assistants for the residence halls. This employment offers stipends that are deposited into the student's account with the University. Entry-level payment equals approximately the housing cost each semester (this does not include meal costs). To qualify, a student must live in a residence hall for at least one semester and file a FAFSA. Selections are made by the Office of Residence Life. **For additional information, please contact the Office of Residence Life at (410) 651-6144.**

INSTITUTIONAL ADVANCEMENT

www.umes.edu/

The Division of Institutional Advancement combines the three traditional Advancement disciplines—Development (or Philanthropy), Public Relations (or Communications) and Alumni Relations—to advance the mission of the University consistent with the leadership's vision. Through private fund-raising campaigns the Division provides scholarships for students, research grants to faculty, international study opportunities for both students and faculty, and an assortment of other “margin of difference” resources not supported by public funding and tuition and fees. Communications strategies raise awareness, appreciation and recognition of the remarkable accomplishments of our students, faculty, staff and alumni. Through Alumni outreach programs and events, the division maintains and nurtures the lifetime relationship graduates enjoy with their Alma Mater.

STUDENT LIFE AND ENROLLMENT MANAGEMENT

www.umes.edu/Student

The Division of Student Life and Enrollment Management at the University of Maryland Eastern Shore exists for the purpose of providing programs, services and educational experiences that promote the academic success of students and enhance the quality of campus life. Headed by a Vice President, the division is comprised of Admissions and Recruitment, Office of the Registrar, Career Services and Cooperative Education, Counseling, Wellness Center, Student Activities, WESM Radio and Student Health. This Division is housed in the Student Services Center.

Mission

The mission of the Division of Student Life and Enrollment Management is to contribute to the teaching, research, and public service functions of the University of Maryland Eastern Shore by providing programs, services and educational experiences which promote the academic success of UMES students and enhance the quality of campus life.

STUDENT SERVICES CENTER

The Student Services Center, or SSC, is the hub of campus life on the UMES campus. The Center offers a variety of recreational and educational activities and employment opportunities for UMES students and student organizations. Standing 147,000 square feet, the length of two football fields, the two-story building is the home of the Student Government Association, twenty-five registered student organizations, bookstore, game room, bowling center, dining hall, snack bar, lounges, ballroom, theatre, and campus post office. In addition, several administrative and support offices are located in the facility, including offices for the Vice President for Student Affairs, Assistant Vice President for Administrative Affairs, Student Activities, International Student Services, Career Services, and Auxiliary Enterprises. The SSC is filled with activity during a typical day and is the site for a number of student organization meetings, lectures, plays, and movies. The Center is also equipped with an Automatic Teller Machine (ATM), sponsored by the State Employees Credit Union of Maryland.

ADMISSIONS AND RECRUITMENT

The Office of Admissions and Recruitment, serves prospective students, currently enrolled students, faculty, and staff relative to matriculation, document processing and the maintenance of students' records. The Recruitment Office engages in prescribed activities designed to identify, attract, enroll and retain through graduation prospective students.

Campus Tours

Prospective students and their parents are encouraged to visit the campus for an orientation tour and to discuss enrollment with University staff. Campus tours can be arranged by contacting the Recruitment Office at (410) 651-6178.

FRESHMAN ADMISSIONS REQUIREMENTS

General Policies

As a condition of admission, prospective freshmen will be expected to have graduated from an accredited high school and have successfully completed an academic program of study which includes the following minimum course requirements:

1. Four Years of English;
2. Three years of social science/history;
3. Two years of laboratory-based science.
4. Three years of mathematics, including Algebra I, II and Geometry;
5. Two years of a foreign language.

Applicable courses pertinent to the Freshman Admission Requirements may include the following:

Mathematics

Advanced Topics, Algebra I, Algebra II, Analysis (or Elementary Analysis), Analytic Geometry, Calculus, Computer Math, Functions, Geometry, Mathematics II, Mathematics III, Mathematics IV, Matrices, Probabilities, Modern Geometry, Probability and Statistics, S.M.S.G., Modern Math, Trigonometry, Computer Science (only with a prerequisite of at least two years of Algebra/Geometry).

Science

Anatomy, Physiology, Biology, Chemistry, Earth Science, Physical Science, General Science, Genetics, Geology, Laboratory Science, Physics, Zoology, Botany, Environmental Science, and Astronomy.

Social Studies

Afro-American Studies, American History, Ancient History, Anthropology, Civics-Citizens, Contemporary Issues (C.I.S.S.), Cultural Areas, Cultural Heritage, Economics, Ethics (if considered to be Religion, not counted), European History, European History and Survey, Far East, Pan American, Geography, Government, Humanities, International Affairs, Medieval History, Modern History, Modern Problems, National Government, Philosophy, Political Science, Problems of Democracy, Problems of 20th Century, Psychology, Sociology, State History, U.S. History, World Civilization, World Cultures.

High School General Equivalency Diploma (GED)

Applicants for admission, who have earned a GED, are accepted for admission provided they obtain an average standard score of 50 with no score under 40, or if all standard scores are above 45 on the standardized exam.

Graduates of Non-Accredited Maryland High Schools

Applicants are required to have competitive SAT/ACT test scores and commendable grades. Students who meet or do not meet entrance requirements are admitted on condition. The conditional status is removed upon the completion of 24 semester hours and a GPA of 2.00 or higher.

Admissions Procedures

Prospective students are required to complete an Application for Admission and pay a \$25.00 non-refundable application fee. Applicants must also have submitted official secondary and/or college transcripts and official SAT or ACT test scores.

When to Apply

Applications must be received in sufficient time to be properly evaluated. The application priority date for the **fall semester is July 15th**. For the **spring semester, December 1** is the application priority deadline. Applications can be processed over the web at www.umes.edu. Applications received beyond these dates will be considered on a space available basis. Decisions for admission are made on a rolling basis throughout the year.

Senior High School Grades

Normally, cumulative grade point averages are based on grades earned through the eleventh grade. When it appears that mid-year grades for the senior year of high school may affect a student's admission status, the grades will be requested and considered before a final admission decision is made. Once admitted, all students must submit final transcripts verifying graduation.

CATEGORIES OF UNDERGRADUATE ADMISSIONS

Freshmen

Regular Admission:

Applicants must have scored competitively on the SAT or ACT test and must have earned commendable grades in high school academic subjects. Exception: Students with these qualifications admitted from non-accredited Maryland high schools will be granted conditional admission.

Early Admission:

Although UMES generally requires applicants to earn a high school diploma prior to their first registration, UMES will admit well-qualified students without this documentation provided the student

- has a minimum "B"/(3.0) average in academic subjects;
- is within four semester courses (two Carnegie Units) of high school graduation, and
- has the endorsement of parents, the high school, and superintendent of schools, when appropriate.

Concurrent Enrollment Admission:

Local high school students who satisfy the requirements for an early admission, but wish to attend UMES while continuing to be enrolled at their high schools, may do so provided they have the approval of their parents and the high school principal. Fees are charged at the same rate as for undergraduate students.

Special Students

Applicants who qualify for admission but do not desire to work towards a baccalaureate degree may be admitted as non-degree seeking, or special, students. These post-baccalaureate students may enroll in undergraduate courses for which they possess the necessary prerequisites, but may not enroll in courses restricted to degree seeking students only. Non-degree seeking (special) students who do not have a baccalaureate degree must submit transcripts and meet regular admission standards. Applicants who do not qualify for admissions, but desire to take some skills courses may be allowed to enroll in such courses if prior permission from the chairperson of the department in which the courses are located is obtained.

Veterans

UMES is fully accredited for accepting veteran students and assists them in their certification. Credit is given for any work done during the period of service which is related to the major field of study.

A Certificate of Eligibility must be submitted to the Office of Admissions and Registration when the veteran reports for registration. Benefits to which veterans are entitled will be sent each month directly to them by the Veterans

Administration after proper certification has been obtained. Veterans are responsible for the payment of all fees and expenses at the same time as all other students. The Admissions Office coordinates veteran services, and veterans are advised to contact the office for further information on admissions, tutorials, and special programs.

Transfer Students

A student who has attended any accredited institution of higher education and has earned twelve (12) or more credit hours will be considered as a transfer student.

An official high school transcript is required of students who have earned less than 28 semester hours. SAT or ACT scores are required unless students have been out of high school two years or more.

A student must be in good judicial standing in order to be considered for admission to the University.

International Students

UMES is certified by the Immigration Customs Enforcement (ICE) for acceptance and certification of international students, through the Student and Exchange Visitor Information System (SEVIS).

International students should apply well in advance (a six-month period is recommended) of the beginning of the fall or spring semester in the prescribed manner. The application must be completed in all respects and must be accompanied by proof of financial self-sufficiency and knowledge of English. Students from non-English speaking countries should forward the results of the Test of English as a Foreign Language (TOEFL). This test is administered by Educational Testing Service, Princeton, New Jersey 08450.

International students must request their high school, secondary school, and/or other institutions of higher education to forward copies of transcripts, mark sheets, diplomas, or degrees directly to the Office of Admissions. Documents attached to the application will not normally be accepted unless certified by United States Officials abroad. International students must receive permission from the Immigration, Customs and Enforcement in order to accept off-campus part-time employment in the United States.

An international student will receive an I-20 Form only after acceptance to the University which will enable the securing of the proper visa from the Office of the American Consulates abroad. The twenty-five dollar (\$25.00) processing fee should be submitted with the application and should be in American check or currency.

Enrollment 101 and New Student Orientation

Enrollment 101 is a two-day activity for students and parents offered during the summer to enable students to complete the registration process prior to the start of the semester. New Student Orientation (NSO) is a two-day summer program designed to familiarize new students with campus life at UMES. NSO is generally offered two days prior to the start of classes and is sponsored by the New Student Orientation Committee. Students accepted into the University receive detailed information about the program and registration materials from the Committee for Enrollment 101 and NSO. There is a minimal fee for the program that is separate from the semester charges. All new and transfer students with fewer than 24 credit hours are required to participate in the University-wide Enrollment 101 and New Student Orientation. Other students, such as transfer students with more than twenty-four (24) credits and Special Students, are encouraged to attend, but are not required to do so.

Direct Transfer and Articulation Agreements¹

UMES fully ascribes to the Maryland Higher Education Commission (MHEC) Articulation Agreement. UMES has direct transfer agreements with all Maryland community colleges, many out-of-state community colleges, and all University of System of Maryland institutions. Direct transfer allows automatic admission and transfer of all college level credits of a "C" or better.

CAREER SERVICES/COOPERATIVE EDUCATION

The Office of Career Services/Cooperative Education assists undergraduate and graduate students, as well as alumni, with all aspects of career development. The staff provides individualized career counseling, career assessment, gathering of occupational information, utilization of computerized career guidance programs, preparation of resumes, interviewing techniques, and other job search strategies.

Within the Career Services Office are maintained computerized job listings of current employment, employment directories, lists of prospective employers, and many other career related resources. Referrals and on-campus interview services are also available to students and alumni registered with this office. The Office also supplies information about internships, summer jobs, and graduate/professional school assistance. In addition, the Office provides information about and administers for the University the following tests: Graduate Record Examination (GRE), Law School Admission Test (LSAT), (MAT) Miller Analogy Test, Professional Assessments for Beginning Teachers (PRAXIS), Medical College Association Test (MCAT), and the College Level Examination Program (CLEP). All students are strongly encouraged to register with the office prior to graduation in order to establish a Credential Portfolio file and become eligible for the services provided by the Office of Career Services and Cooperative Education. **For additional information, contact the Office of Career Services/Cooperative Education at 410-651-6447.**

The Cooperative Education Program

The Office of Career Services administers the Cooperative Education program. This program is designed to combine educational training and practical work experience. The program provides students with planned and supervised work experiences related to their chosen field. All eligible and qualified students shall have access to the benefits of a cooperative education work experience through the availability of credited undergraduate and graduate cooperative academic course offerings and the provision of course enrollment opportunities.

Credit may be awarded contingent upon approval of the Cooperative Education Office only. The grading system for all Cooperative Education courses shall be pass/fail. Students may be awarded one to twelve (1-12) credits per course, which are designated as non-additive free elective credits that are applied, in accordance with the applicable academic major criteria for graduation, towards the completion of a baccalaureate, master's or doctoral degree.

Cooperative Education Eligibility: In order to participate, the student must:

- possess a minimum 2.0 GPA,
- have completed a minimum of 24 semester hours,
- be a sophomore or junior enrolled in a degree seeking program,
- have full-time status, and
- file an application with the Cooperative Education Office.

¹See Appendix 1 for full text of applicable MHEC regulations.

To remain in the program, the student must:

- register for each semester of cooperative education assignment,
- satisfactorily perform the work assignments for each work semester,
- submit and complete all required reports to the Cooperation Education Office on time, and
- attend Cooperative Education orientation workshops and seminars.

Once enrolled in this program, students will receive assistance in developing Learning Objectives, which outline the responsibilities and expectations of the Cooperative Education Program. The listing of objectives is intended to be flexible and individualized. It establishes readiness for learning and identifies relevant job-related information and specific requirements for credit.

Cooperative Education Courses

Co-Op Ed. 300 Cooperative Work Experience 1-12 credits

Co-Op Ed. 301 Cooperative Work Experience 1-12 credits

Co-Op Ed. 400 Cooperative Work Experience 1-12 credits

Co-Op Ed. 401 Cooperative Work Experience 1-12 credits

COUNSELING SERVICES

The University Counseling Services offers a broad range of services designed to assist students in personal growth, academic success, emotional health and well-being, and psychological development. The Center's holistic and student-centered approach to counseling allows the staff to help students learn to make reasoned decisions in the multiple areas of their academic and personal lives.

It is the policy of Counseling Services to provide comprehensive counseling to all students. Counseling Services subscribes to principles outlined by the International Association of Counseling Services (ISACS) and the code of ethics of the American Psychological Association (APA). These services are offered at no cost to enrolled students.

It is the philosophy of Counseling Services that one of the basic rights of clients in treatment is the right of confidentiality, as counseling is most effective when a student can be direct and honest with the Counselor without fear that personal information will be divulged.

Confidentiality is an ethic that prevents unauthorized disclosure about clients, including their names and their care, without the client's written permission, except under conditions where such disclosure is necessary to protect the student or someone else from imminent danger. While information will not be released outside of Counseling Services without the student's written permission, by state law Counseling Services staff may confer with each other in order to improve the quality of its services.

Referrals from the campus community are encouraged as faculty and staff often are the first to identify that a problem exists and can provide support by referring students to Counseling Services. To make an appointment, the student may walk in or call (410-651-6449) to schedule the initial session.

HEALTH CENTER

The Charles R. Drew Student Health Center provides basic health care for students (residents and commuters) currently enrolled at UMES. The Health Center staff includes a nurse practitioner, a physician and nursing staff that provide evaluation, diagnosis, treatment, counseling, and referral for health needs.

The Student Health Center provides a variety of services such as treatment for acute conditions, immunizations and screenings. There is no charge for office visits; however some fees may be required for certain services. Students who are referred off campus to other medical facilities (for x-rays, more extensive testing, etc.) are responsible for any expenses incurred. Likewise, costs for prescriptions are the responsibility of the student.

All registered students, including graduate, transfer and international, regardless of number of credit hours being taken are required to provide a completed health history form and proof of up-to-date immunization status for measles, mumps, rubella (MMR) and tuberculosis (TB) prior to registering for and/or attending classes. Students living in campus housing must also meet the meningitis requirement. Registration blocks will be placed on students who have not submitted the required documents. This will prevent students from registering for/or attending classes until the records are received and processed. To avoid delays, students should submit the records as soon as possible. The deadlines for submission are: August 1 for the Fall semester and January 1 for the Spring semester. Students who encounter difficulty obtaining documentation should contact the Student Health Center for assistance.

Students are also required to have health insurance. A university sponsored plan is available and full-time undergraduate students and full-time international students (undergraduate and graduate) are automatically enrolled in the insurance plan unless they opt out. To opt out of the university health insurance plan students, must sign the insurance waiver in the Student Health Center and present proof of current valid health insurance coverage. Waivers must be completed by September 7 in the Fall and by February 7 in the Spring. If no waiver is completed, the student's account will be billed for insurance at the current rate. The 2009-2010 cost is \$38 per semester for domestic students and \$247 per semester for international students. Part-time students and domestic graduate students are eligible for the plan but must enroll themselves directly with the company. Copies of the insurance brochure may be obtained from the Student Health Center or accessed online at njcservices.com. Students with questions about using the insurance should contact the Health Center staff.

Hours for the Health Center during the Fall and Spring semesters are 8:00 AM to 5:00 PM Monday through Friday. For medical emergencies after these hours, students may seek assistance through Public Safety or Residence Life staff members. **For additional information contacted the Student Health Center at (410) 651-6597 or (410) 651-6702 (fax).**

JUDICIAL SYSTEM AND STUDENT CODE OF CONDUCT:

The University of Maryland Eastern Shore (UMES) is a student-centered community, the central purpose of which is the discovery and transmission of knowledge and learning through scholarly research, teaching, service, and community outreach, building towards the total development of its students and the global community.

Members of the UMES community (students, faculty, administrators, and staff) have come together in a voluntary association, not merely to fulfill individual responsibilities, but to contribute to the realization of the University's objectives and mission. Therefore, in the interest of maintaining order (in the University community) within the broadest range of student freedom, these rules and regulations have been established by the University of Maryland Eastern Shore to govern student conduct.

The UMES Judicial System is designed to assure due process, with the speedy and constructive resolution of cases and controversies. Disciplinary proceedings at UMES are not criminal proceedings; therefore the focus of inquiry in disciplinary proceedings shall be to determine whether a student(s) has violated the University Student Code of Conduct. A humanistic approach to discipline is employed whenever possible. It is intended that this judicial system, will operate on the principle that justice will best be served by promoting the development of self-knowledge and self-discipline, expressed in socially desirable ways, rather than harmful, destructive or immature attitudes or behaviors.

The Student Code of Conduct outlines rules and regulations relative to student conduct and housing, and is applicable to all students (on and off campus), as well as registered student and Greek-letter organizations.

The authority to administer the Student Code of Conduct and its judicial system is delegated to the Vice President for Student Life and Enrollment Management. The Campus Judicial Board adjudicates disputes over complaints of violations of these rules and regulations.

All UMES students share the following responsibilities: To read, become acquainted with, and adhere to the Code; To respect personal and property rights of others, and to act in a responsible manner at all times, on or off campus; To protect and foster the intellectual, academic, research, cultural, and social missions of the University; and To observe the laws of local, state and federal governments and agencies.

UMES Code of Student Values

The University of Maryland Eastern Shore claims certain foundational principles of values upon which its entire existence stands. All students at the University of Maryland Eastern Shore have the duty to observe and uphold and accept these values as standards of conduct. These include honor, personal and academic integrity, mutual respect for personal and property rights of others, justice, freedom, diversity, leadership, civility, courtesy, fairness, spirituality, and loyalty to the University. UMES has established this Code of Student Values (*see full Interpersonal Values Statement in appendix, Student Code of Conduct*), which forms the model of conduct for student members of our academic community.

Prohibited Conduct

The following conduct is prohibited by the University of Maryland Eastern Shore and subject to disciplinary action in accordance with the Student Code of Conduct. Attempts to commit acts prohibited by this Code shall be punished to the same extent as completed acts, which may include suspension and/or expulsion from the University. Students and student organizations are responsible for the conduct of their guest(s) on, or in University property and at functions sponsored by the University, and may be disciplined for a guest's violation of this Student Code of Conduct. Pursuant to the University's parental notification policy, parents or guardians will be notified when students under the age of twenty-one (21) receive disciplinary sanctions for abuse and/or misuse of alcohol, and drugs, or for arrest. Please note this is not an exhaustive list, a more complete list is available in the Student Code of Conduct.

1. Computer Misuse and Dishonesty
2. Forgery, Fraud, and Dishonesty
3. Improper Possession, Use or Abuse of Alcoholic Beverages
4. Drugs
5. Discriminatory Conduct
6. Violence to Persons
7. Theft, Vandalism, Destruction and Abuse of Property
8. Disruptive, Disorderly, or Reckless Conduct
9. Possession of Dangerous Weapons, Firearms, or Explosives
10. Violations of Residence Life and Housing/Rules and Regulations
11. Cellular Telephone and Pagers in the Classroom
12. Obstruction of the free flow of pedestrian or vehicular traffic
13. Arson
14. Harassment
15. Sexual Assault
16. Stalking
17. Illegal Gambling or Wagering
18. Hazing
19. On or Off Campus Event Related Misconduct

IMPORTANT UNIVERSITY REGULATIONS WHICH APPLY TO STUDENTS

The following behavior may result in referral to the UMES campus Judicial System for appropriate action. Typically, disciplinary sanctions will be imposed not only for individual misconduct that demonstrates a disregard for institutional behavior standards, but also for conduct that indicates disregard for the rights and welfare of others as members of an academic community. Such conduct may ultimately call into question the student's membership in the University community, either because he/she has violated elementary standards of behavior necessary for the maintenance of an educational milieu or because his/her continued presence at the University adversely affects the ability of others to pursue their educational goals.

- ***Violation of Fire Regulations*** - This includes failure to comply with evacuation procedures, tampering with fire-protection apparatus, use or possession of fireworks or firearms, use of open-flame devices or combustible materials which endanger the safety or well-being of the University community, or unauthorized use of electrical equipment.
- ***Behavior Which Jeopardizes the Safety or Well-Being of Other Members of the University Community or Persons Coming onto University Property*** - This includes physical harassment of, or interference with, fire fighters, police officers, or other persons engaged in the performance of their official duties; physical abuse or threatening physical abuse of any person on University property; and/or forcible detention of any person on University property.
- ***Unauthorized Possession, Use, or Distribution of Alcoholic Beverages on or in University Property*** - University policy, consistent with State and County Laws, restricts on-campus use of alcoholic beverages in specified areas.
- ***Possession, Use, Sale or Distribution of Illegal Drugs or of Drugs for Which the Required Prescription Has Not Been Obtained*** - This includes possession, use, distribution, sale, manufacture of, or processing of, illegal or un-prescribed narcotics, drugs, and/or hallucinogenic substances.
- ***Destruction, Theft, Attempted Theft or Impairment of Personal or University Property*** - Disciplinary action may include a requirement of restitution.
- ***Unauthorized Possession or Use of University Keys*** - Keys to rooms or buildings on the university campus may be obtained only through official channels.
- ***Unauthorized Entry into or Presence in a University Building or Facility*** - Except for properly scheduled use, classroom, administration, and recreation buildings are closed to general student use on holidays, Saturday afternoons, Sundays, and after 12:00 midnight during the week. Students may use a building or facility for a specified purpose upon written permission from a member of the faculty, with approval of the academic or administrative officer normally having control over such building or facility. Such permission may also be revoked or withdrawn.

- **Plagiarism, Cheating and Other Academic Irregularities** - A student who violates accepted academic procedure may be referred to the Department Chairman or to an Ad Hoc Committee on Academic Dishonesty.

- **Falsification, Forgery or Modification of Any Official University Record** - Identification card, absence excuses, parking stickers, transcripts, examinations, grade cards, admission applications, etc. are all Official University records. Tampering with any of these records may invoke judicial actions.

- **Actions on the Part of Students Which Substantially Obstruct, Disrupt, or Interfere with Non-Academic Activities on University Premises by Members or Authorized Non-Members of the University Community.**

- **Obstruction of, Disruption of, or Interference with Any University Activity of an Academic Nature** - Discipline in the classroom is the responsibility of the faculty member in charge of the class. Misbehavior of a type that interferes with the educational efficiency of a class will be considered sufficient cause for suspending a student from the class. If a student is suspended from class for disciplinary reasons, he/she should report immediately to the Department Chair.

The Department Chair will investigate the incident and will report it to the Academic Dean, who will in turn report it to the Vice President for Academic Affairs to determine whether or not past disciplinary action has been taken against the student. The Department Chair will then write a letter to the student indicating the disposition of the case. The student will be required to present this letter to the instructor who suspended him/her before he/she can be readmitted to class. A copy of this letter will be sent to the Chair of the Student Judiciary Council.

- **Failure to Meet Financial Obligations to the University** -This includes refusal to pay delinquent accounts and use of worthless checks or money orders as payment to the University for tuition board, fees, library fines, traffic penalties, etc.

- **Violations of University Housing Regulations.**

- **Violations of University Campus Traffic Rules and Regulations.**

Suspension of Students and Organizations from University Activities and/or Facilities

Suspension from University activities and facilities occurs when a student breaks the University's Code of Student Conduct. The person in charge of a unit of the University directly related to the code violation (the person in charge of a department, division, organization building, facility, or unit such as the Dining Hall, Student Union etc.) may recommend suspension of any student or organization from a facility, pending action by the Student Judicial Board, which adjudicates all such incidents and notifies the student(s) of the disposition of the case. A file of such actions is kept in the office of the judicial administrator.

STUDENT ACTIVITIES

The Office of Student Activities manages and implements a number of student activities based on student interest and input, both on and off campus. These activities include dances, intramural sports and recreation, plays, movies, lectures, bus trips, leadership training, homecoming, ethnic festival, and Spring Fest.

Student Organizations

All official extra-curricular organizations, activities, and enterprises of students on the UMES campus operate under the broad guidance of the Director of Student Activities. The following are many of the organizations currently functioning on the UMES campus: Beta Kappa Chi; Campus Pals Organization; Caribbean International Club; Criminal Justice Society; Drama Society; Education Club; Eta Rho Mu; Engineering Technology Society; Groove Phi Groove Social Fellowship; Human Ecology Club; Industrial Arts Club; International Students Organization; Math and Computer Science Club; Minorities in Agriculture, Natural Resources, and Related Sciences (MANRRS); NAACP; National Association of Black Accountants; National Student Business League; Pan-Hellenic Council; Pom-Pom Squad; Poultry Science Club; Recruitment Club; Rehabilitation Services Student Association; Social Work Student Association; Student Activity Advisory Board; Wesley Foundation.

Government Association (SGA)

Made up of elected student officers and advised by the Office of Student Activities, the SGA is the official undergraduate student governing body on the UMES campus. The SGA promotes the interests and welfare of the university community and encourages student participation in the solution of student concerns, while cooperating with the faculty and staff in the regulation and promotion of student activities and development.

Student Publications

The Student Newspaper, *The HAWK'S Message*, and the Yearbook are generated through student fees, appropriated by the SGA. The *HAWK'S Message* is published monthly, while the Yearbook is an annual publication. Students volunteer as editors, photographers, and writers on both publications. For information on how to volunteer for either publication, contact the SGA or the Office of Student Activities.

The Pan-Hellenic Council

The Pan-Hellenic Council is made up of representatives of the National Greek Letter Organizations of UMES. The Council makes recommendations to the administrative bodies of the UMES campus regarding the activities of the National Greek Letter Organizations on the campus. One of its chief functions is to stimulate and guide each individual Greek Letter Organization so that the best interests of the University community will be served.

Fraternities and Sororities

National Greek Letter fraternities and sororities are represented by chapters of the following organizations on the UMES campus: Alpha Kappa Alpha; Alpha Phi Alpha; Delta Sigma Theta; Omega Psi Phi; Phi Beta Sigma; Sigma Gamma Rho; Zeta Phi Beta

Any sorority or fraternity which permits any type of activity incidental to the initiation of pledges during the stated period will be suspended.

Student Handbook

The UMES Student Handbook is designed to familiarize students with official policies and procedures related governing students through their educational path with respect and dignity towards all persons associated with the University. This publication is located at www.umes.edu/Student/.

The Golden (ID) Identification Program for Senior Citizens

The purpose of the Golden Identification Program at UMES is to make courses available to retired citizens who are 60 years old or older and are residents of the state of Maryland. Once admitted to the University, the Maryland resident will be eligible to register for credit courses (maximum of 6 credits) as a regular or a special student and pay the mandatory fees. Tuition, per semester, will be waived. **For additional information contact the Office of Student Activities at 410-651-6436. For Advanced Special Student Status (graduate level) contact the School of Graduate Studies at (410) 651-6507.**

INFORMATION AND PROCEDURES

Policy on Off-Campus Disorderly and Disruptive Behavior

Under the provisions of the Student Code of Conduct, the University may bring judicial charges against a student or group of students whose "off-campus behaviors affect the university community or the university's pursuit of its mission, policies or procedures" (Student Code of Conduct). Off-campus behavior, which is disorderly and disruptive to others in the community or the neighborhoods surrounding the University, may fall under this category.

When addressing the off-campus behavior of its students, the University is primarily interested in responding to students who demonstrate a pattern of behavior over time that is disruptive to others in the community and involves disorderly conduct that is a violation of local, state or federal laws or the University's Student Code of Conduct.

Conduct that is disorderly and disrupts others in the community is prohibited and is subject to discipline through the University's judicial process. Students who lease off-campus residences shall be held accountable for the disorderly and disruptive actions of others occurring within the leased premises and shall be subject to discipline under the Student Code of Conduct. Students who live in off-campus residences leased by the University shall be held accountable to the University's housing agreement, and for disorderly and disruptive actions of others occurring within those premises and shall be subject to discipline under the Student Code of Conduct. It is not necessary for students to receive a criminal or civil citation in order for their behavior to be subject to discipline through the University's judicial process.

Dress Code

The dress code is based on the theory that learning to use socially acceptable manners and selecting attire appropriate to specific occasions and activities are critical factors in the total educational process. Understanding and employing these behaviors not only improves the quality of one's life, but also contributes to optimum morale, as well as embellishes the overall campus image. They also play a major role in instilling a sense of integrity and an appreciation for values and ethics.

The continuous demonstration of appropriate manners and dress insures that the University of Maryland Eastern Shore students meet the very minimum standards of quality achievement in the social, physical, moral and educational aspects of their lives - essential areas of development necessary for propelling students toward successful careers.

Students will be denied admission to various functions if their manner of dress is inappropriate. On this premise students at the University of Maryland Eastern Shore are expected to dress neatly at all times. The following are examples of appropriate dress for various occasions:

- Classroom, Dining Hall, Snack Bar, Student Center and University offices - neat, modest, casual or dressy attire.
- Formal programs in Ella Fitzgerald Center for the Performing Arts Center, the William P. Hytche Athletic Center, Tawes Gymnasium, the Theater and the Chapel - business or dressy attire.
- Interviews - business attire.
- Social/Recreational activities, Residence hall lounges (during visitation hours) - modest, casual or dressy attire.
- Balls, Galas, and Cabarets - formal, semi-formal and dressy attire respectively.
- ***Students may be denied admission to various functions if their manner of dress is inappropriate.***

Examples of inappropriate dress and/or appearance include but are not limited to: Caps, do-rags, pajamas, and or hoods for men or women; and scarves for women in classrooms, the dining hall, snack bar, student center or other indoor activities. This policy does not apply to headgear considered as a part of religious or cultural dress. Other examples are: pajamas, midriffs or halters, mesh, netted shirts, tube tops or cutoff tee shirts in classrooms, dining hall, snack bar, the student center, and offices; bare feet, short shorts, blue or other type jeans at major programs such as Musical Arts, Convocations, Commencement, Career Fair, or other programs dictating professional, dressy, or formal attire; clothing with derogatory, offensive and/or lewd messages either in words or pictures.

All administrative, faculty and support staff members will be expected to monitor student behavior applicable to this dress code and report any such disregard or violations to the Offices of the Vice President for Student Life and Enrollment Management, or the Associate Vice President for Student Life.

OFFICE OF THE REGISTRAR

www.umes.edu/Registrar/

The Office of the Registrar is the official university repository of academic records. The Office of the Registrar strives to provide the highest level of customer service, professionalism, courtesy, and efficiency in servicing students, faculty, staff, alumni and the community. Although housed in the Division of Student Life and Enrollment Management, this office plays an essential role to the Division of Academic Affairs by ensuring that all academic policies and procedures are met. The Office of the Registrar is located in the Student Development, Cultural, and Recreation Center (SDCRC). The following services are representative, but not limited to those offered by the Office of the Registrar: Issuance of Transcripts; Enrollment Verifications; Withdrawal from the University; Graduation Audits; Credit by Examination; Coordination of Cooperative Programs; Change of Major; Degree Certification; Course Withdrawal; and Inter-Institutional Enrollment.

The Collaborative Programs With Salisbury University

Full-time students may register for approved courses at nearby Salisbury University (SU) and receive credits earned for the courses at full value. The same is true for SU students who wish to enroll in courses offered at UMES. Registration must be completed at the student's home campus according to scheduled dates. Copies of the Salisbury University schedule and/or information concerning the collaborative programs are available from the Office of the Registrar.

Degree Requirements

It is the responsibility of departments to publish clearly defined degree requirements. *Responsibility for knowing and meeting all degree requirements for graduation in any curriculum rests with the student.* Students should check with the departmental academic advisor to ascertain their standing in this respect no later than the close of the junior year. For this purpose, the student should print an unofficial transcript from the HawkWeb at the end of each semester.

Ordinarily, all students must take their final thirty (30) credit hours at UMES. Under extraordinary circumstances, the Dean may grant permission to take a maximum of six hours of the final thirty (30) hours on another campus. However, in no case does this permission waive the minimum residence requirement of 30 semester hours.

Academic requirements for graduation are a minimum of 120 semester credit hours, (some programs may require additional credit hours) with a "C" (2.00) cumulative average, excluding Fundamentals courses and MATH 101.

Commencement

Commencement is held three times a year, the third Friday in December and May, and in September for the Doctor of Physical Therapy students only. **Students who do not graduate as expected must resubmit an application for degree in order to participate in the next Commencement Exercise.**

Participation in Commencement

It is the policy and practice of the University of Maryland Eastern Shore that all participants in its commencement must have completed all academic requirements as presented in the catalog in effect at the time of initial enrollment at the University as a degree-seeking student and approved by the degree granting department. Once a student interrupts **his/her** program for five years or more, it will be necessary to satisfy the degree requirements as outlined in the University catalog or published curriculum in effect at the time of re-enrollment as a degree-seeking candidate. A student who has an approved registration at another institution during the semester of anticipated graduation will receive **his/her** degree once an official transcript is received by the Registrar's Office and all academic and financial obligations are met. Each student is approved for graduation when the appropriate academic department, school, and the Office of the Registrar complete an official graduation audit.

Application for Degree

Winter Commencement

Students planning to graduate in **December** must complete their academic program requirements by the end of the fall semester. Students who expect to complete the degree requirements at the end of a semester should complete an application for degree during the pre-registration period prior to the semester of the expected graduation. Pre-registration dates are published in the Academic Calendar. **The deadline for submission for the Winter Commencement is June 30th.** Students who do not graduate as expected **must** resubmit an application for degree in order to participate in the next Commencement Exercise.

Spring Commencement

Students planning to graduate in **May** must complete their academic program requirements by the end of the spring semester. Students who expect to complete the degree requirements at the end of a semester should complete an application for degree during the pre-registration period prior to the semester of the expected graduation. Pre-registration dates are published in the Academic Calendar. **The deadline for submission for Spring Commencement is January 30th.** Students who do not graduate as expected **must** resubmit an application for degree in order to participate in the next Commencement Exercise.

Summer Commencement – Physical Therapy Students Only

Students planning to graduate in September must complete their academic program requirements by the end of the third summer session. Students who expect to complete the degree requirements at the end of a term should complete an application for degree during the pre-registration period prior to the semester of the expected graduation. Pre-registration dates are published in the Academic Calendar. **The deadline for submission for Summer Commencement is June 1st.** Students who do not graduate as expected **must** resubmit an application for degree in order to participate in the next Commencement Exercise.

Other

Students who expect to graduate and are not enrolled at the University must file the application for degree by **January 30th** for the spring semester commencement and **September 30th** for the fall semester commencement. Students will be charged a non-refundable diploma fee each semester the application for degree is submitted. This fee and all financial obligations to the university must be satisfied in order to participate in commencement activities and prior to the release of the degree.

Students who do not graduate as expected **must** resubmit an application for degree in order to participate in the next Commencement Exercise. **For additional information contact the Office of the Registrar at 410-651-6413.**

Second and Double Baccalaureate Degree Requirements

A student who has already received one baccalaureate degree may receive a second degree from UMES by completing 30 credits at UMES, provided the total number of credits of the first and second degrees combined is 150 credits. In no case will a second baccalaureate be awarded to a student who has not completed the last 30 hours at UMES.

A student who wishes to receive two baccalaureate degrees from UMES simultaneously must complete the regularly prescribed degree requirements of each program and complete a minimum of 150 credits. Candidates for a double degree must file a formal program outline with the departments involved. The program outline must include a showing of the courses required to fulfill each major and supporting area, as well as the general education and elective requirements of both curricula. If the double degree involves two different departments, the student must designate which department is responsible for maintenance of records.

No course in either curriculum used to satisfy a major or supporting area requirement may be used to satisfy the General Education Requirements.

Graduation with Latin Honors

The faculty of UMES may recommend candidates for graduation with honors in a particular curriculum under the conditions listed below. To be considered for Latin honors, a student must have earned in residence at UMES a minimum of 60 semester hours upon graduation.

- a. For the honor of Cum Laude (with distinction), the student must have earned an average of not less than 3.3 in all courses pursued which are counted toward graduation.
- b. For the honor of Magna Cum Laude (with great distinction), constituting a recognition of work of exceptional merit, a student must have earned an average of not less than 3.5 in all courses pursued.
- c. For the honor of Summa Cum Laude (with highest distinction), constituting a recognition of work of superior merit, a student must have earned an average of not less than 3.7 in all courses pursued.

SCHOLARSHIPS

www.umes.edu

The University offers various scholarships, grants and loans through various offices/departments/area. Those that are available to students are listed below.

DEPARTMENT OF INTERCOLLEGIATE ATHLETICS

For further information, please contact the Department of Athletics at 410-651-8471.

Corey E. Gibson, Charles D. Gregg and Barbara G. Gregg Scholarship Fund - Established by Charles D. Gregg and Barbara Gregg; Awards: Varies; Criteria: Minimum 2.0 GPA and is a student athlete.

Burrell & Jean Jordan Fund - Established by Burrell Jordan, III and Jean Jordan; Award: Varies; Criteria: Fifth year athlete(s) who demonstrate financial need.

The Hawk Voice Education Foundation, Inc. – Art Shell Endowed Fund – Established by the Hawk Voice Education Foundation, Inc.; Award: Varies; Criteria: Students and athletes who demonstrate financial need.

The Sam Seidel Basketball Award - Established by Samuel W. Seidel; Award: Varies; Criteria: Student must be either a graduating senior male basketball player or a Junior member of the men's basketball team, must have lettered in basket ball for three years, must have never been ineligible during the college career, and is graduating in four years.

HONORS PROGRAM

Below are scholarships available to students who have been selected to participate in the Honors Program. For further information, please contact the Honors Program at 410-651-6082.

The Honors Program Scholarships: Award: Variable; renewable for three years provided student maintains 3.3 minimum GPA each semester and meets other program requirements.

Thurgood Marshall Scholarship - Award: \$4,400 per year (maximum). Criteria: Current students and entering freshman with competitive SAT and GPA; Current students must maintain 3.0 to be eligible for scholarship renewal. Students must apply directly to Thurgood Marshall College Fund (www.thurgoodmarshallfund.org).

University of Maryland Eastern Shore Scholars Program - Award: Varies. Criteria: 3.5 GPA and competitive SAT scores. Must maintain 3.30 GPA per semester.

Henson Leaders Endowment - Award: Varies. Criteria: Student must maintain a minimum 2.5 GPA, have a history of community service, and personal goals which are consistent with a commitment to community service, demonstrated commitment to the mission and goals of UMES (i.e., through high school activities and volunteer service, demonstrated ability to act as a role model, demonstrated commitment to positive values, demonstrated seriousness of purpose and work toward earning a baccalaureate degree within a reasonable time, stated willingness to devote time and effort outside of the classroom to activities that enrich learning experiences, and has financial need, as demonstrated on the standard financial form).

Henson Scholars - Award: Varies. Criteria: Student must have outstanding academic achievement and leadership qualities.

INSTITUTIONAL ADVANCEMENT

Scholarships are offered through the Office of Institutional Advancement. For further information, please contact the Office of the Vice President at 410-651-7773.

The Carnival Gala Endowment--Established as a result of the University's Annual Carnival Gala. Awards: Varies. Criteria: Student must demonstrate financial need. Award recipient chosen after consultation with the Financial Aid Scholarship Committee.

Dr. & Mrs. Herman Franklin Award -Established by Dr. Herman Franklin. Award: Varies. Criteria: scholarships for domestic and International students at UMES.

OFFICE OF FINANCIAL AID

SCHOLARSHIPS, GRANTS, AND LOAN OPPORTUNITIES

There are several types of scholarships, grants, loans, and other awards available to students at the University of Maryland Eastern Shore. Currently, more than 80 percent of all UMES students receive some degree of financial aid. Each type of aid has its own criteria, and award amounts vary from partial to complete financial aid. Scholarship and grant awards are funding sources that do not require repayment. Loans require repayment, usually at a reduced interest rate, and payments are usually deferred until six (6) months after graduation. See Scholarships for further details. The following is a listing of current scholarships, grants, loans, and other awards that are available to students. **For further information, please contact the Office of Financial Aid at 410-651-6172.**

Scholarships

Aileen Massie Jones & Charlie "Buster" Gregg Charlotte W. Newcombe Endowed Fund – established by Charles D. and Barbara Gregg to support student scholarships for mature women. Award: Varies. Criteria: Through the UMES Newcombe Scholarship Program.

Caroline and Marie Ward Scholarship Award -established by Armstead Ward. Award: up to \$1,500.00. Criteria: Somerset County residence preferred. Student must demonstrate financial need and have a minimum 3.0 GPA.

Conectiv Endowed Scholarship Fund - established by Delmarva Power. Award: Varies. Criteria: Based on need and academic merit. Student must be a graduate of a Delmarva Peninsula area school and resident of one of the counties.

Class of 74' - established by the UMES Class of 1974. Award: Varies. Purpose: To support undergraduate and graduate scholarships to students at UMES based on financial need and merit.

Lenzy Endowed Scholarship Fund - established by Clara W. Berryhill. Award: At least \$2,500 per semester. Criteria: Student must be academically eligible and currently receiving federal financial aid funds.

Lucy Oguanobi Scholarship Fund - established by Dr. Eucharia E. Nnadi. Award: Varies. Criteria: Student must demonstrate financial need and major in any area of the Health Sciences.

M & T Bank Endowed Scholarship (formerly Allfirst) - established by the First National Bank of Maryland. Award: Varies. Criteria: Student must be from low to moderate income brackets

Mary & Daniel Loughran Continuing Scholars Fund - established by the Mary and Daniel Loughran Foundation, Inc. Award: Varies. Criteria: Student must be an upperclassman who demonstrates academic merit and financial need.

Melvin J. Hill Teacher Education Endowment - established by Melvin J. Hill. Award: Varies. Criteria: Student must be majoring in teacher education, minimum 2.5 GPA and demonstrates financial need.

Metropolitan United Methodist Church Endowed Scholarship Fund -established by the Metropolitan United Methodist Church. Award: Varies. Criteria: Students must fill out an application and submit it to the financial aid office, students must have and maintain a minimum 2.8 GPA, must be a full-time undergraduate student of sophomore or higher status, must be in good academic standing and have high moral character, and must show verifiable evidence of enrollment in an academic major in which a degree can be received

Mid-Shore Community Foundation Grant - established by the Mid-Shore Community Foundation. Award: Five 1,250.00 Scholarships. Criteria: Must be incoming freshman students from the Mid-Shore Counties (Caroline, Dorchester, Kent, Queen Anne's and Talbot) who enroll at UMES, must maintain a minimum 2.5 GPA, and must demonstrate financial need and high academic merit.

Milestone Endowment - established by UMES. Award: Varies. Criteria: Merit and need based. Award given after consultation with Office of Student Financial Aid.

Myrtle E. Morris Memorial Fund - established by Brigadier General (ret) Walter I and Mrs. Dawn V. Jones in memory of his mother, Myrtle E. Morris. Award: Varies. Criteria: Student must demonstrate financial need and high academic merit, single mother, pursuing first undergraduate degree.

The Abell Foundation Scholarship Fund - established by the Abell Foundation. Award: Varies. Criteria: Worthy UMES student(s) with demonstrated financial need.

The Alonzo A. Brown Scholarship - established by the Crisfield Pride Lodge 194. Award: Varies. Criteria: Student must demonstrate financial need and is a child of a member of the Crisfield Pride Lodge 194, attending the University of Maryland Eastern Shore.

The Amanda E. Newton Memorial Scholarship Fund - established by a bequest from Amanda E. Newton. Award: Varies. Criteria: Outstanding student of unusual merit.

The Bailey A. Thomas Endowed Scholarship Fund - established by McCormick & Company, Inc. Award: Varies. Criteria: Student must be in good academic standing and Somerset County Resident Preferred, State of Maryland Resident Second Option. Contact: Office of Student Financial Aid.

The BT Alex Brown Continuing Scholars Fund - established by BT Alex Brown. Award: Varies. Criteria: Must be an upper class student.

The Deloris J. and William P. Hytche Family Scholarship Fund - established by Deloris J. and William P. Hytche. Award: Varies. Criteria: Deserving student(s) undergraduate or graduate.

The Donald Wilson and Flo Joyce Mabe Scholarship Fund for Foreign Students - established by Donald Wilson Mabe and Flo Joyce Mabe. Award: Varies. Criteria: Student must be in good academic standing with unmet financial need and a currently enrolled international student

The France-Merrick Continuing Scholars Fund - established by the France-Merrick Foundation, Inc. Award: Varies. Criteria: Must be an upper class student.

The Hayman Family Reunion Endowed Fund - established by the Hayman Family. Award: Varies. Criteria: Student must be in good academic standing and demonstrating financial need.

The J. Edwin Tawes Memorial Scholarship - establishment by a bequest from Lou Ella D. Tawes. Award: Varies. Criteria: Student must be an undergraduate and a resident of Somerset County.

The Jesse T. and Vernetta B. Williams, Sr. Scholarship Fund - established by Mr. & Mrs. Jesse T. Williams, Sr. Award: Varies. Criteria: A minority student who demonstrates academic talent and financial need with a 2.5 GPA or better.

The Jesse T. Williams Sr. Family Endowment - established by Jesse T. Williams and Vernetta B. Williams. Award: Varies. Criteria: Student must have a 2.5 GPA or higher and demonstrate financial need.

The Otis and Dorothy B. Strozier Scholarship Fund - established by Otis and Dorothy Strozier. Award: Varies. Criteria: Student must meet UMES Scholarship Committee Criteria.

The Pepsi-Cola Bottling Company of Salisbury Scholarship Fund - established by the Pepsi-Cola Bottling Company of Salisbury. Award: Varies. Criteria: Student must demonstrate financial need.

The Roger and Romain Estep Fund - established by Roger and Romain Estep. Award: Varies. Criteria: Student must be a Maryland resident and demonstrate financial need.

The Rose Walt Scholarship Fund - established by Dr. James Walt. Award: Varies Criteria: Student must be in good academic standing.

The Samuel S. Trott Scholarship Fund - established by the S.S. Trott Scholarship Committee. Award: Varies. Criteria: Student must be a Henry County, Martinsville, VA Resident, demonstrate outstanding potential for leadership and service and meet UMES Scholarship Committee Criteria.

The Stephen Long Guild Scholarship Fund – established by Stephen Long Guild, Inc. Award: Varies. Criteria: Student must have a 2.5 GPA or higher, seeking a degree in professional services area: teaching, nursing, social work, etc. and unmet financial need

The Theophilus J. "Sonny" Lloyd Scholarship Fund - established by Theophilus J. Lloyd. Award: Varies. Criteria: Must demonstrate financial need, have high academic merit and be an undergraduate student.

The Tri-County Organizations' Coalition, Inc. Endowed Scholarship Fund - established by the Tri-County Organizations' Coalition, Inc. Award: Varies. Criteria: Student must demonstrate financial need, be in good academic standing by the Scholarship Committee, and must be an undergraduate student enrolled and enrolling at UMES from the Tri-County area (Somerset, Wicomico and Worcester Counties)

The Tri-State Association I.B.P.O.E. Elks of the World Endowment - established by the Tri-State Association I.B.P.O.E. Elks of the World. Award: Varies. Criteria: Must be a student in good academic standing and demonstrate financial need.

The UMES National Alumni Association - Baltimore Chapter Fund - established by the Baltimore Chapter of the UMES Alumni Association. Award: Varies. Criteria: Student must have a GPA 2.0 or higher and demonstrate financial need

The UMES National Alumni Association Endowed Scholarship Fund - established by the National Alumni Association. Award: Varies. Criteria: Student must demonstrate financial need.

The William G. Baker, Jr. Continuing Scholars Fund - established by the William G. Baker, Jr. Memorial Fund Award: Varies. Criteria: Upper class student, need and merit based.

UMES Tri-County Alumni Association - established by the UMES Tri-County Alumni Association. Award: Varies. Criteria: Student must have been enrolled and completed two semesters at UMES, must have accumulated a minimum of 30 credit hours at UMES, must have a GPA of 2.5 or better and must be an undergraduate from the Tri-County area of Somerset, Wicomico, and Worcester counties

Verizon Continuing Scholars Fund - established by Bell Atlantic-Maryland. Award: Varies. Criteria: Student must demonstrate academic merit, financial need, and be an Upper Classman.

Grants

Federal Pell Grant - Source: Federally funded. Award: variable (minimum - \$400; maximum varies depending upon congressional approval). Criteria: Award amount is based on a federal formula according to need and enrollment status (full-time: 12 or more credits, three quarter time: 9-11 credits, half time: 6-8 credits). Open to U.S. citizens, residents, and permanent residents. **Must reapply each year.**

Federal Supplemental Educational Opportunity Grant (FSEOG) - Source: Federally funded, Award: variable (\$200-\$2,000) Criteria: Available to undergraduates enrolled in degree-seeking programs. Award amounts are based on enrollment status, need, and availability of funds. **Must reapply each year.**

University Grant - Source: Institutionally funded. Award: variable (\$1,200 - \$3,000). Criteria: Available to degree-seeking undergraduates. Amount varies according to enrollment status, need, and availability of funds. **Must reapply each year.**

Diversity Grant - Source: Institutionally funded. Award: Variable (\$200 - \$1,500). Criteria: Available to Maryland residents enrolled in an undergraduate degree-seeking program. Award amounts are based on need and other criteria. **Must re-apply each year.**

Loans

Federal Perkins Loan Program

Open to both undergraduates and graduates who are United States citizens or permanent residents who demonstrate a need. The interest amount is deferred until six months after the student ceases to be enrolled at least half time. The minimum monthly payments are determined by the amount borrowed. Award amounts are contingent upon student need (as determined by federal formula) and the availability of funds. Deferments and cancellations are available to those students who meet established criteria.

Federal Direct Student Loan Programs

Available to undergraduates who are United States citizens or permanent residents. Funds for this loan program are made available through the U.S. Department of Education. The federal government guarantees these loans. Students must complete the Free Application for Federal Student Aid (FAFSA) to apply for these loans. Eligibility is determined by information submitted on the FAFSA. These loans must be repaid and the interest rate is variable with the maximum rate being 8.25%. Both the principal and interest are deferred until six months after the student ceases to be enrolled at least half-time or graduates.

Subsidized loans are awarded on the bases of financial need. Interest is not charged on these loans while the student is enrolled at least half-time or during periods of deferment. Award amounts vary based on need and classification levels. Annual maximum amounts are as follows: freshman - \$3,500; sophomore - \$4,500; junior/senior - \$5,500.

Unsubsidized loans are not need-based. Interest is charged on this loan while the student is attending school and also during grace periods and deferments. Annual maximum loan amounts are as follows: **Dependent undergraduate:** freshman - \$3,500; sophomore - \$4,500; junior/senior - \$5,500. **Independent undergraduate:** freshman - \$7,500 (only \$3,500 of this amount may be subsidized loans); sophomore - \$8,500 (only \$4,500 of this amount may be in subsidized loans); junior/senior - \$10,500 (only \$5,500 of this amount may be in subsidized loans). **All first time borrowers at UMES must attend loan counseling. An origination fee of 1% of the loan is deducted from all William D. Ford Direct Student Loans.**

Parent Loan for Undergraduate Students (PLUS)

This loan is for parents of dependent students who wish to borrow to help pay for their child's education. Applicants must be United States Citizens or permanent residents and the student must be in a degree program. Parents may borrow up to budget (as determined by the UMES Office of Student Financial Aid) for each student who is enrolled at least half time. The parent must not be in default of any student loan, and the student must maintain satisfactory academic progress according to the policies of the Office of Student Financial Aid. An insurance premium of up to 3% of the loan principal is charged and deducted for each disbursement. Repayment for both the loan and interest begins sixty (60) days after the second disbursement. The lender may defer the principal, if requested.

Federal Family Education Student Loan Program (FFELP)

Available to graduate students who are United States citizens or permanent residents. Funds for this loan program are made available through various participating lenders. The University of Maryland Eastern Shore uses a comprehensive process for developing its lender list. A survey is used to evaluate the best pricing, technology, and customer service provided by each lender. The survey responses are data entered into a quantitative matrix where points are awarded. Documented experiences with lenders during the academic year from both staff and students are also added as a qualitative component. After all data are collected, a committee meets to evaluate the data and to determine the preferred lender list. This data are then submitted to the Director of Student Financial Aid for review. Student choice of lender is never denied nor is the processing of a loan from a lender outside of UMES lender list delayed. The federal government guarantees these loans. Students must complete the Free Application for Federal Student Aid (FAFSA) to apply for these loans. Eligibility is determined by information submitted on the FAFSA. These loans must be repaid and the interest rate is variable with the maximum rate being 8.25%. Both the principal and interest are deferred until six months after the student ceases to be enrolled at least half-time or graduates.

Subsidized loans are awarded on the bases of financial need. Interest is not charged on these loans while the student is enrolled at least half-time or during periods of deferment. Award maximum is \$8,500.

Unsubsidized loans are not need-based. Interest is charged on this loan while the student is attending school and also during grace periods and deferments. The annual maximum loan amount is \$20,500 (only \$8,500 of this amount may be in subsidized loans). **All first time borrowers at UMES must attend loan counseling. An origination fee of 1% of the loan is deducted from all FFELP loans.**

STUDENT LIFE AND ENROLLMENT MANAGEMENT

The scholarships identified below are handled by the Division of Student Life and Enrollment Management. For further information, please contact the Office of Student Life and Enrollment Management at 410-651-6687.

Dr. James M. White, Jr. Award for Service and Leadership Fund - Established by Dr. James M. White, Jr. Award: Varies. Criteria: Recipients must maintain a 3.0 or higher to qualify and must demonstrate outstanding service and leadership to the student body and general community

The John A. Wilson Scholarship Fund - Established by John Wilson. Award: Varies. Criteria: Application must be completed, student must have unmet financial needs documented by the Office of Student Financial Aid, and demonstrate outstanding potential for leadership and service.

The Thomas H. Kiah Memorial Scholarship Fund - Established by Family and Friends of Thomas H. Kiah. Award: Varies. Criteria: Student must have a grade point average of at least a 3.0 and has good interpersonal and human relation skills

UMES Parents Association - Established by the UMES Parents Association. Award: Varies. Criteria: Student's parent must be member of the UMES Parents Association, must be an undergraduate student(s) who is experiencing financial hardships that interfere with their ability to perform their academic responsibilities.

William H. Bannon Foundation Commuter Student Scholarship Fund - Established by the Bannon Foundation. Award: Varies. Criteria: Resident of the Eastern Shore of Virginia and a commuter student.

UPWARD BOUND

Upward Bound has the scholarships below available and are provided based on financial need. For further information, please contact Upward Bound at 410-651-6458.

The Ruby and William Lynk Upward Bound Scholarship Fund - Established by Ruby Holland Lynk to provide a merit-based scholarship to students enrolled in the Upward Bound program at the University of Maryland Eastern Shore. Under certain circumstances, it may be awarded to a student not enrolled in the program or may be used for general Upward Bound student/program support. Award: Varies. Criteria: Student must have a minimum 3.0 GPA or higher and must submit a letter of application along with three recommendations, one being the high school counselor.

The Sammie L. Thomas, Jr. Scholarship Fund - Established by Frances Thomas. Award: Varies. Criteria: Student must demonstrate financial need, be in good academic standing as determined by the scholarship committee. Preference is given to an Upward Bound participant.

ACADEMIC INFORMATION AND PROCEDURES

www.umes.edu/AcademicAffairs

In order for students to have a smooth transition during their academic career, the Division of Academic Affairs, in connection with the Faculty Assembly and UMES Senate, have established policies and procedures that should be followed. This section covers all policies and procedures that relate the academic arena.

ACADEMIC CLEMENCY

It is the policy of UMES to allow undergraduate students returning to the campus after a separation of at least five years to petition for the removal of a limited number of unsatisfactory or failing grades earned previously at the Eastern Shore Campus. Contact your Department Chair immediately after being readmitted or reinstated since you must file your petition prior to the first day of classes of your first semester back on campus. To ensure prompt review of your petition, apply EARLY for readmission or reinstatement so that you will have ample time to select courses and register. Courses which are excluded will be identified on your transcript by the notation, "Academic Clemency."

ACADEMIC HONESTY POLICY FOR GRADUATE AND UNDERGRADUATE STUDIES

Academic honesty and integrity lie at the heart of any educational enterprise. The University of Maryland Eastern Shore (UMES) is committed to the values of academic honesty and integrity, and the ensuring that these values are reflected in behaviors of the students, faculty, and staff.

UMES is committed to the prevention of academic dishonesty. To reinforce that commitment, information, including definitions and examples of academic dishonesty, will be published in the UMES Student Handbook and the university catalog. The intention of this information is to prevent acts of academic dishonesty. Prevention is the primary goal of the University in general and the Division of Academic Affairs in particular.

When there is evidence that a student has disregarded the University's Academic Honesty Policy, that student will be subject to review and possible sanctions. Students are expected to do their own work and neither to give nor to receive assistance during quizzes, examinations, or other class exercises.

One form of academic dishonesty is plagiarism. Plagiarism is intellectual larceny: the theft of ideas or their manner of expression. Students are urged to consult individual faculty members when in doubt. Because faculty and students take academic honesty seriously, penalties for violation may be severe, depending upon the offense, as viewed by the committee selected by the appropriate Dean to review such matters. The minimum sanction for cases of proven cheating is failure of the course. Instructors will explain procedures for taking tests, writing papers, and completing other course requirements so that students may understand fully their instructor's expectations.

One of the objectives of UMES is to promote the highest standards of professionalism among its students. The integrity of work performed is the cornerstone of professionalism. Acts of falsification, cheating, and plagiarism are acts of academic dishonesty, which show a failure of integrity and a violation of our educational objectives; these acts will not be accepted or tolerated. The following definitions and guidelines should be followed:

1. **Falsification** is unacceptable. Falsification includes but is not limited to
 - a. creating false records of academic achievement;
 - b. altering or forging records;
 - c. misusing, altering, forging, falsifying or transferring to another person, without proper authorization, any academic record;
 - d. conspiring or inducing others to forge or alter academic records.

2. **Cheating** is also unacceptable. Cheating includes but is not limited to
 - a. giving answers to others in a test situation without permission of the tester;
 - b. taking or receiving answers from others in a test situation without permission of the tester;
 - c. having possession of test materials without permission;
 - d. taking, giving, or receiving test materials prior to tests without permission;
 - e. having someone else take a test or complete one's assignment;
 - f. submitting as one's own work, work done by someone else;
 - g. permitting someone else to submit one's work under that person's name;
 - h. falsifying research data or other research material;
 - i. copying, with or without permission, any works, (e.g., essays, short stories, poems, etc.), from a computer hard drive or discs and presenting them as one's own.

3. **Plagiarism** as a form of cheating is also unacceptable. Plagiarism is the act of presenting as one's own creation works actually created by others. Plagiarism consists of
 - a. taking ideas from a source without clearly giving proper reference that identifies the original source of the ideas and distinguishes them from one's own;
 - b. quoting indirectly quoting or paraphrasing material taken from a source without clearly giving proper reference that identifies the original source and distinguishes the paraphrased material from one's own compositions;
 - c. quoting directly quoting or exactly copying material from a source without giving proper reference or otherwise presenting the copied material as one's own creation.

Acts of falsification, cheating, plagiarism, and other forms of academic dishonesty are grounds for failure of a course. The University reserves the right to impose more severe penalties for any of these forms of academic dishonesty. The penalties may include, but are not limited to suspension from the University, probation, community service, expulsion from the University, or other disciplinary action the University believes to be appropriate.

ACADEMIC DISHONESTY PROCEDURES

In accordance with existing policy in the University System of Maryland (USM), students accused of plagiarism and other forms of academic dishonesty will be given due process. When an instructor believes that a student has committed plagiarism or other acts of academic dishonesty, the following steps will be taken:

1. A faculty member who has sufficient reason to believe that a student is guilty of academic dishonesty will notify and subsequently meet with the student within **ten calendar days** from the time the alleged academic dishonesty is discovered.

2. Prior to the initial meeting of the faculty member and the accused student, the faculty member should check the files on academic dishonesty kept in the office of the Vice President for Academic Affairs to determine whether the student has been previously disciplined for academic dishonesty. The University reserves the right to impose more severe disciplinary action against a student who is a repeat offender or who have previously been found guilty of egregious incidents of cheating.
3. At the initial meeting the student will be given the complete and detailed charges in writing, and an opportunity to respond to the faculty member regarding the charges.
4. If the student wishes, he/she may submit a written response to the charges. This response must be delivered to the aforementioned faculty member within **five calendar days** of the initial meeting.
5. If the student admits to the charge of academic dishonesty, and the offense is his/her first offense, he/she will be asked to sign a statement consenting to the punishment imposed. Consent statements will be filed with the appropriate records in the Office of the Vice President for Academic Affairs. For first offenses, the punishment will be failure of the course. If the student refuses to sign the consent form, the faculty member will proceed to the next step in the process.
6. The faculty member will notify the student whether or not the matter will be taken to the next step in the process within **five calendar days** of receiving from the student a written response to the charges. The student shall file his/her written response with the Office of the Vice President for Academic Affairs.
7. If the student does not respond within the time indicated, the faculty member must proceed to the next step in the process. If, upon receiving the written response, the faculty member does not accept the student's explanation, the faculty member is required to send the matter forward to the next level of review.
 - a. If the case is a repeat offense, the faculty member is also required to send the matter forward to the next level of review.
 - b. If the case is not a repeat offense, and the student does not respond within the time indicated, the faculty member must proceed to the next step in the process.
 - c. If the case is not a repeat offense and upon receiving the written response the faculty member does not accept the student's explanation, the faculty member is required to send the matter forward to the next level of review.
8. Once the student has been duly notified of the charges, he/she will not be permitted to drop the course, but will continue as a student, completing and submitting all work required throughout the remainder of the semester.
9. The faculty member will notify the department chair and the Dean of his/her findings, and within **five calendar days forward** to the Dean a written explanation of the circumstances, along with copies of any pertinent evidence.
10. The Dean will review the explanation and any supporting evidence, and may, at his or her discretion, interview the accused student and/or the faculty member, for purposes of clarification and adherence to the University's Academic Honesty Policy. If the matter cannot be resolved at that level to the satisfaction of the faculty member bringing the charges, within **five calendar days** it will then be forwarded to the school's committee on academic dishonesty.
11. A five member committee on academic dishonesty will be appointed by the respective Dean of each school at the beginning of the academic year. It will be comprised of three full-time tenured faculty, one exempt employee of the University, and one junior or senior level student. In the event that the alleged dishonesty occurred on the graduate level, the student member will be a graduate student. The Dean will appoint the chair of the committee. In order for its actions to be official, at least three members of the committee must be present when decisions are made. The verdict will be decided by the majority, in this case two votes of three. If four or more members are present, the majority shall be three or more votes.
12. A faculty member, who has brought or is in the process of bringing charges against a student for academic dishonesty in the current academic year, will not be eligible to serve on the committee. The Dean will appoint a replacement.
13. The committee will meet to review cases and to hear any testimony it considers relevant to the matter on dates requested by the Dean. At the meeting, the student will be allowed the opportunity to appear and respond to the charges, and answer any additional questions from the committee. All proceedings will be tape recorded, and the recording will be entered into the academic dishonesty records maintained in the Office of the Vice President for Academic Affairs. In the event of academic dishonesty allegedly occurring during summer sessions or during final work at the conclusion of a semester, the alleged

dishonesty charge will be reviewed during the committee's first meeting in the fall. In the interim, the student will receive a grade of "I."

14. The committee review shall be informal, with neither party represented by an advocate. Witnesses may be asked and/or permitted to make a statement to the committee if the committee is informed prior to the meeting. The meeting shall not be open to the public. If the student wishes he or she may have an associate present for consultation purposes only. Lawyers, parents, or any form of professional advocate may **not** serve as an associate
15. The committee shall meet privately at the close of the meeting to decide whether a majority believes a preponderance of evidence supports the allegation of falsification, cheating or plagiarism.
16. If the allegation is sustained, the committee will also determine whether the standard minimum penalty of failure in the course shall be accompanied by an additional penalty or penalties. If the allegation is not sustained, the student is not guilty of violating the Academic Honesty Policy.
17. The records of the proceedings, both written and electronically recorded, are to be kept in the files on academic dishonesty maintained in Office of the Vice President for Academic Affairs.
18. The committee shall notify, in writing, the student, the instructor, and the Dean within **ten calendar days** of having reached its decision. The decisions of the committee may be appealed on procedural grounds only. All appeals should be made to the Vice President for Academic Affairs, who will then have the following options:
 - a. affirm the decision and the penalty imposed by the committee;
 - b. affirm the decision, but amend the penalty; or
 - c. vacate the decision and order a new hearing with a different committee.

After a careful review of the record of the proceedings, the Vice President for Academic Affairs will render the final decision of the University.

ACADEMIC DISMISSAL AND REINSTATEMENT

When a student is academically dismissed from UMES, he/she is not eligible to register with any campus or program of the University System of Maryland. To become eligible for registration once again, he/she must complete the Application for Reinstatement prior to the desired date of reinstatement. Applications for Reinstatement must be filed by the following deadlines:

Fall Semester

April 1st Students who have been out one or more semesters and want to return for the Fall Semester.

June 15th Current semester students on dismissal at the end of the Spring Semester and want to return for the Fall Semester.

Spring Semester

November 1st Students who have been out one or more semesters and want to return for the Spring Semester.

January 5th - Current semester students on dismissal at the end of the Fall Semester and want to return for the Spring Semester.

Applications received after the deadline indicated above will be considered for the next session. Applications may be obtained online at www.umes.edu/registrar or by writing to the Office of the Registrar, Student Development and Cultural Center, University of Maryland Eastern Shore, Princess Anne, Maryland 21853.

A student wishing to transfer to another program at UMES must wait until reinstatement has been granted before applying for admission to that program. The UMES Academic Appeals Board will not normally grant reinstatement until at least one semester has elapsed from the time of the student's dismissal.

A student who is reinstated after academic dismissal will be on academic probation. The same conditions of probation may be imposed on any student who seeks admission by transfer from another university or college and whose record at the previous school warrants this action.

Any appeal concerning the regulation governing academic probation or academic dismissal shall be directed to the School's specific Academic Appeals Board, which is empowered to grant relief in unusual cases if the circumstances warrant such action.

No student on academic probation is permitted to register for more than fourteen (14) semester hours. The student on academic probation should carry twelve (12) academic semester hours in order to absolve academic probation in one semester. Students on probation are urged to work with a faculty advisor before registering in order to take full advantage of the exceptions and special provisions.

ACADEMIC STANDING

Class standing for purposes of taking upper level courses, voting in S.G.A. elections, selective service reports, etc., is determined on the following scale:

Earned Credit Hours	Level
0-27	Freshman
28-55	Sophomore
56-83	Junior
84 and above	Senior

Students should complete the general education courses and earn 56 academic hours **before** they enroll in upper level courses.

ACADEMIC PROBATION AND DISMISSAL

Good Academic Standing

Students are considered to be in good academic standing and performing satisfactorily at UMES if their cumulative GPA is at least 2.0.

Unsatisfactory Performance:

Total Hours Attempted	Academic Dismissal If Cum. GPA is	Academic Probation If Cum. GPA is in the range
1-24	1.549 or below	1.550 to 1.999
25-48	1.699 or below	1.700 to 1.999
49-73	1.799 or below	1.800 to 1.999
74 and above	1.949 or below	1.950 to 1.999

All credit hours transferred to UMES are included in the Total Hours Attempted in the first column of the above table when determining the category of academic performance. The cumulative GPA is computed by using

- the number of credit hours attempted at UMES and corresponding grades earned, and
- the credit hours attempted elsewhere within the University System of Maryland and the corresponding grades earned, when the grades also transfer to UMES. If the grades do not transfer, the hours are not used in computing the GPA.

Academic Probation

Any student will be placed on academic probation if he/she

1. fails to maintain the cumulative grade point average consistent with the number of credit hours attempted, or
2. has been reinstated to the University following academic dismissal.

Students on academic probation are restricted to no more than thirteen (13) credit hours per semester and are required to repeat all courses in which deficiencies have been received, as scheduling allows.

Students on academic probation are required to participate in prescribed academic crises intervention programs and activities provided by the major department and/or UMES Student Support Services.

Students must abide by ALL regulations during the entire period of academic probation.

Academic Dismissal

Students matriculating as first time freshmen will not be academically dismissed at the end of their first semester regardless of cumulative grade point average or number of credit hours earned. Beginning with their second semester, such students will be subject to the standards given in the table above.

A student, other than a first semester freshman, will be academically dismissed if he/she

1. fails to maintain the cumulative grade point average consistent with the number of credits attempted, or
2. falls in the category of Academic Probation for two consecutive semesters.

A student who has been academically dismissed and who is reinstated will still be subject to the standards set forth in the table above. For example, a student will be academically dismissed again at the end of the first semester after reinstatement, if he/she remains in the Academic Dismissal category.

ALLEGED ARBITRARY AND CAPRICIOUS GRADING
(Procedures for Review - Campus Policy #III-1.20 (A) 1-1-92)

A. Definitions

1. "Arbitrary and Capricious Grading":
 - a. The assignment of a course grade to a student on some basis other than performance in the course, or
 - b. The assignment of a course grade to a student by unreasonable application of standards different from standards that were applied to other students that were in that course, or
 - c. The assignment of a course grade by a substantial and unreasonable departure from the instructor's initially articulated standards.
2. "Student" refers to any individual registered and in attendance at UMES, and includes both undergraduate and graduate levels.
3. "Instructor" Instructor refers to any tenured or non-tenured teacher or any Graduate Assistant teaching a course and assigning grades at UMES.
4. "Day to Day" Refers to the normal working day at UMES.

B. Informal Procedures

5. A student who believes he or she has received an improper final grade in a course should inform the instructor promptly. The instructor shall meet with the student at a mutually convenient time and place within ten days of receipt of the information. The purpose of the meeting is to attempt to reach a resolution.
6. If the instructor has left the University, is on approved leave, or cannot be reached by the student, the student should contact the Department Chairperson. The Department Chairperson, or a designee, shall meet with the student as described above to solve the problem.

C. Formal Appeal

A formal appeal is available only upon a showing that the informal process has been exhausted.

7. General Requirements
 - a. An appeal must be made in writing, addressed to the appropriate dean, and contain the following: the course title and number, the instructor's name, a statement detailing why the grade is believed to be arbitrary and capricious as defined in this policy, and all relevant supporting evidence.
 - b. An appeal must be received in the Dean's Office within 20 (twenty) days of the first day of instruction of the next semester (excluding summer).
8. Procedures
 - a. Each school shall have a standing committee of two tenured professors and one senior level student for the undergraduate school or graduate student for the graduate school to hear appeals of arbitrary and capricious grading. The appeal shall be heard within the academic unit offering the course. If the instructor of the course is a member of the committee, that instructor shall be replaced by an alternate designated by the dean.

- b. Each written appeal is to be reviewed by the entire committee for a decision by the majority. The committee shall either dismiss the appeal or move it forward.
- c. Grounds for dismissal: The student has submitted the same complaint to any other grievance procedure; the allegations, if true, would not constitute arbitrary and capricious grading; the appeal was not timely, or the informal process has not been exhausted.
- d. If the appeal is dismissed, the committee shall notify the student in writing within ten days of the decision, and include the reason or reasons for the dismissal.
- e. If the appeal is not dismissed, the committee shall submit a copy of the appeal to the instructor. The instructor must reply in writing to the committee within ten days.
- f. If, based on the instructor's reply, the committee feels there is a viable solution, that solution should be pursued with the student and the instructor.
- g. If no solution is reached, a fact-finding meeting with the student and the instructor shall be held promptly. It is to be non-adversarial and informal with neither party represented by an advocate. Witnesses may be asked to make a statement to the committee if the committee is informed prior to the meeting. The meeting shall not be open to the public.
- h. The committee shall meet privately at the close of the fact-finding meeting to decide whether a majority believes the evidence supports the allegation of arbitrary and capricious grading beyond a reasonable doubt.
- i. The committee shall notify the student, the instructor, and the Dean in writing of the decision within five days of the meeting.

D. Authority of the Committee

- 9. The committee has the authority to take any action it believes will bring about substantial justice, including but not limited to :
 - a. directing the professor to grade the student's work anew;
 - b. directing the instructor to administer a new final exam or paper;
 - c. directing the cancellation of the student's registration in a course;
 - d. directing the award of a grade of "pass" in the course.
- 10. The committee does not have the authority to
 - a. assign a letter grade for the course, or
 - b. reprimand or take disciplinary action against the instructor.
- 11. The decision of the committee is final and binding on both parties. The decision may not be appealed to any other body with UMES or the University System of Maryland.

E. Implementation

The Dean shall be responsible for implementing the decision of the committee.

ALTERNATIVE CREDITS

All students who enroll in degree programs will be required to complete 12 alternative credits before graduating. Alternative credits can be earned by completing internships, summer and winter session courses, on-line courses, and courses completed while studying abroad.

AUDITING OF COURSES

A student who wishes his record to show that he has attended a course regularly but does not wish credit for that course may register as an auditor. No grade is given for a course audited, nor are any credits attempted or earned. No quality points are calculated. Any student may change his initial registration in a course for credit to audit during the add period only. He or she may drop an audited course during the drop period.

Fees for an audited course will be based on the regular credit value of the course. Once a student has audited a course, he or she **cannot** establish credit by examination in that course.

CLASS ATTENDANCE

1. The University expects all students to take full individual responsibility for their academic work and progress. All students must meet the qualitative and quantitative requirements of each course in their curricula to progress satisfactorily. They are expected to attend classes regularly, for consistent attendance offers the most effective opportunity open to all students to gain command of the concepts and materials of their courses of study. Absences (whether excused or unexcused) do not alter what is expected of students qualitatively and quantitatively.

2. In many courses, such as those requiring group discussion, laboratories, clinics, public speaking or language conversation, or performance of particular skills, in-class participation is an essential part of the work of the course. In other courses, occasional in-class assessments may occur without prior notice.

3. The University will excuse the absences of students that result from instances such as: *illness* (where the student is too ill to attend class), *death in the immediate family* (family members are defined as being one or more of the following persons: father, stepfather, grandfather, or legal guardian, mother, stepmother, grandmother, sister, brother, stepsister, stepbrother, any person living as an integral member of a student's home), *religious observance* (where the nature of the observance prevents the student from being present during the class period), *participation in University activities* at the request of University authorities, and *compelling circumstances* beyond the student's control. Students requesting excused absences must furnish acceptable documentation to their course instructors to support their assertion that absences were the result of one of these causes. However, the nature of some courses will preclude makeup of assessments missed. In these cases, students will not be penalized for excused absences; grades will be computed on actual assessment as explained in the course's syllabus. Otherwise, students with excused absences will be given an opportunity to make up missed assessments. The responsibility for granting excused absences and determining which assessments can be made up lies with the instructor of each individual course. Absences (whether excused or unexcused) do not relieve the students of their responsibility to complete the course assessments. Instructors are especially understanding in cases related to health and/or death, provided the student provides proper documentation.

4. Students must notify their instructors of the reason for any absence as soon as possible. Where the reason for an absence from a scheduled assessment is known in advance (for example, in cases of religious observance or participation in University activities at the request of University authorities), students must inform their instructors two weeks prior to the absence, if known that far in advance, or immediately upon discovering the impending absence. Prior notification is particularly important in connection with examinations and other major assessments, since failure to reschedule them before conclusion of the final examination period may result in loss of credits during the semester. When the reason is not known in advance (for example, in cases of health related emergencies or compelling circumstances beyond their control), students must inform their instructors as soon as possible after its development.

5. Each department and school may develop a general policy for class attendance as long as it conforms to this **UMES Policy for Class Attendance**.

6. Each instructor is responsible for distributing to each student a written statement as part of the course syllabus at the beginning of the semester in order to inform each class of the nature of in-class participation and assessments expected and what effect absences will have on the evaluation of the student's work in the course. This statement must include any department and school policies, which are applicable to the course. **The instructor in accordance with this statement, the general policy of his or her department and school, and this UMES Policy for Class Attendance shall handle absences.**

7. In cases of dispute, the student may appeal to the chair of the department offering the course within one week from the date of the refusal of the right to a make-up assignment. In those instances where the instructor is the chair, the appeal may be made to the dean. The dean's decision will be final in all cases. When permitted, a makeup assessment must be given on campus unless the published schedule or course description requires other arrangements. The makeup assessment must be held at a time and place mutually agreeable to the instructor and student. The makeup assessment must not interfere with the student's regularly scheduled classes. In the event that a group of students requires the same make-up assessment, one make-up assessment time may be scheduled at the convenience of the instructor and the largest possible number of students involved, and a second make up for the remaining group.

8. All students are expected to attend all classes. Excessive unexcused absences for any reason may result in either a low grade or course failure. All students will be considered excessively absent from a class if they miss a class more hours during the semester or term than the class meets each week. For example a student should not miss (unexcused absence) a class that meets three hours per week more than three hours during the semester or term nor be absent from a class that meets one hour per week more than once during the semester or term. At the beginning of each semester or term, the class instructor will distribute this

written policy and other relevant information as part of the course syllabus, regarding his/her expectations on absenteeism, attendance, warnings, requests for withdrawal, and make-up privileges.

9. Instructors are to document students' class attendance through the process of taking and maintaining daily attendance during each semester.

CHANGE OF GRADES

Grades that have been submitted to the Office of the Registrar can be changed only by submitting the official change of grade form certifying that either an error was made in recording the grade, the grade was omitted on the official grade roster, or work has been completed to remove the grade of 'I'. **Courses in which students officially withdraw and the grade of 'W' has been recorded do not qualify for the change of grade process.**

Grade changes must be initiated by the instructor on the required change of grade form available in the Office of the Registrar. Such petitions require the approval of the department head and the dean of the instructor's school before the Registrar will make changes on the student's record.

Any grade change must be received in the Office of the Registrar no later than 60 calendar days immediately following the beginning of classes in the semester succeeding the one in which the grade was given or omitted. For a **winter term**, the changes are due in the Office of the Registrar no later than 60 calendar days immediately following the beginning of classes in the succeeding Spring semester. For a **summer term**, the changes are due in the Office of the Registrar no later than 60 calendar days immediately following the beginning of classes in the succeeding Fall semester. If a student is not enrolled in the succeeding semester, then the grade change is due 60 calendar days following the beginning of classes in the next regular semester.

For courses in which the grade of 'I' (Incomplete) has been awarded, the work must be completed and the terminal grade must be submitted by the **end of the next semester of enrollment**, otherwise the "I" becomes "W."

CREDIT BY EXAMINATION

Credit towards the bachelor's degree may be established by examination under the following conditions:

1. The applicant must have completed at least 12 semester credits at UMES with an average grade of "C" or better before making application for an examination to establish credit. The Department Chair and Dean may waive this regulation for entering freshmen who wish to pursue the examination to establish credit based on previous training.
2. The total number of credits that may be established by examination cannot exceed 60 semester credits. "Credit by Examination" cannot be used for a course in which the student has previously earned a letter grade (A, B, C, D, or F); or in which the student received a W or an I grade. Additionally, credit by examination **cannot** be awarded for a course which was audited during a previous semester. Usually credit by examination will not be accepted for any part of the final thirty (30) semester credits, which must be completed in residence. However, if permission is granted by the Vice President for Academic Affairs, six (6) semester hours of the final thirty (3) may be established by examination. However, in no case does this permission waive the minimum residence requirement of 30 semester credits.
3. The fee for credit by examination is \$30.00 per semester credit hour for full-time students. A grade of "C" or higher must be obtained in order to establish credit by examination.
4. Applications for examination to establish credit by examination must be approved on an individual course basis. Approval will not be granted at the same time for examinations in a sequence of courses. Approval to take an examination in any course will depend upon the student having established credit in all prerequisites or having received the approval of the Department Chair, the Dean and the Vice President for Academic Affairs. Application for credit by examination is equivalent to registration for a course with the following conditions:
 - a. A student may cancel an application at any time prior to completion of the examination with no entry on the permanent record. The examination instructor will make the results of the examination available to the student prior to formal submission of the grade. A student may elect not to have the grade recorded. In this case, a symbol of "W" will be recorded. No course may be attempted again in this manner.
 - b. Grades earned on examination to establish credit will be posted on the student's transcript and used in computing the student's grade point average. Such credits shall be accompanied by the phrase, "By Exam" or "By CLEP," whichever is applicable.

- c. The instructor must certify on the report of the examination that copies of the examination questions and the student's answers have been filed in the Office of the Registrar.

CREDIT UNIT AND LOAD

The semester hour, the unit of credit, is the equivalent of a subject pursued one 50-minute period a week for approximately 14-15 weeks. Two or three periods of laboratory are required for each credit hour in any course. In order for students to complete most curricula in four calendar years, their semester credit load must average 15 credits each semester or 30 hours each year toward their degree. **Students are not allowed to register for courses in which a conflict will be created.**

A student registering for more than 18 hours per semester must have special approval from the Vice President for Academic Affairs. Students having a cumulative grade point average of 3.0 or above must complete a **Request for Additional Credit Unit Load** in consultation with the Department Chair. The Department Chair will forward the request to the Dean who will request permission from the Vice President for the student to register for more than 18 semester hours. The Office of the Registrar will not accept the Registration Schedule if an overload of credit hours is requested without such approval. The request for more than 18 credits should be completed during the Academic Advising period. Established dates for Academic Advising are posted on the Academic Calendar. **Under no circumstances will a student be allowed to carry more than 21 credit hours per semester.** Semester hour credit may be converted to quarter hour credit by dividing by two-thirds.

ENGLISH PROFICIENCY EXAM

The English Proficiency Examination (EPE) is a two-hour examination required by the University of Maryland Eastern Shore to meet a University System of Maryland (USM) requirement to assure that all undergraduate students are able to write at an acceptable level. In order to graduate, every student who enrolls at the University for the first time, beginning fall 1998, must pass the English Proficiency Examination. No student will be exempt.

FINAL EXAMINATIONS

A final examination shall be given in every course. Exceptions may be made with approval of the Department Chairman and Dean. Normally the final examination, additional tests, quizzes, term papers, and reports are used to determine a student's comprehension of a course. The order of procedure in these matters is left to the discretion of the department and should be announced to the class at the beginning of the course. All final examinations must be held in conformity with the Official Final Examination Schedule. No final examination shall be given at a time other than that scheduled in the Official Examination Schedule without approval from the Vice President for Academic Affairs. The Department Chairman and Dean must keep a file of all final examinations.

GRADES AND QUALITY POINTS

The academic achievement of a student for a specific course is rated as follows:

Letter Grade (percentage) — Quality Points Per Hour		
A	(90-100) —	4.0
B	(80-89) —	3.0
C	(70-79) —	2.0
D	(60-69) —	1.0
F	(below 60)	—
		0.0

Any deviation from the above grading scale must be included as part of the course syllabus distributed by the faculty member at the beginning of each semester.

Students must earn a grade of "C" or better in major and minor courses. All students must also earn at least a "C" or better in English 101 and 102 and MATH 101. All Teacher Education majors must earn a "C" or better in Teaching Internship. Grades of "D" in major and minor courses, English 101 and 102 or Teaching Internship do not count toward fulfilling the requirements for a degree.

In certain specified courses, the grading system involves only Pass or Fail ("P" or "F"), Satisfactory or Unsatisfactory ("S/U).

Grade Point Average

To compute the grade point average (GPA), the number of credits for each course is multiplied by the quality points of the corresponding grade. The total number of quality points is divided by the total number of credits earned to obtain the grade point average for the semester. The cumulative grade point average is computed in a similar manner by including all courses earned at the University of Maryland. Courses transferred from other institutions are not included in the grade point average.

INCOMPLETE GRADES

The grade of "I" (incomplete) is to be given only to students whose work in a course has been qualitatively satisfactory, when because of illness, or other circumstances beyond their control, they have been unable to complete the requirements for the course. In no case will the grade of "I" be recorded for a student who has not completed satisfactorily the major portion of the course work. In cases where this grade is given, the student may not re-register for the course until the "I" is removed by completing work assigned by the instructor. Work must be completed and the terminal grade must be submitted **by the end of the next semester of enrollment**, otherwise the "I" becomes "W."

When a student receives a terminal grade, he may repeat the course, as provided for any course where repeats are authorized. The student's Department Chairman and Dean may grant exception to the time period cited above on a written request by the student if circumstances warrant further delay. An "I" cannot be removed by earning "credit by examination."

In the computation of the cumulative grade point average, the course hours in which the grade of "I" is assigned are not included as hours attempted. When the grade of "I" is removed, the course hours are then included as hours attempted, and the Office of the Registrar makes an appropriate entry in the cumulative grade point average.

INTERCAMPUS COURSE REPEATS

If students wish to repeat a course at another campus in the University System of Maryland, they should consult the department chair of that course to determine course equivalency. Written statements verifying that the courses are equivalent should be sent by the Chairman to the Registrar at the student's present campus, who will see that the appropriate adjustment is made in the student's permanent record after the course has been repeated.

NON-TRADITIONAL LEARNING

UMES grants college credit for non-traditional learning experiences, either from credit by examination, or a **combination of examination, and credits earned on a Satisfactory/Unsatisfactory basis**. There are two ways to obtain credit by examination: one is by taking an examination administered by the appropriate department within the University and the other is by taking an appropriate examination administered through the College Level Examination Program (CLEP).

Advanced Placement Exam Credit

Based on a student's performance on the CEEB Advanced Placement Board Examinations, students may earn advanced placement and college credit. These examinations are usually given to eligible high school seniors during the month of May.

REGISTRATION

In order to attend classes at UMES, all students must process an official registration. Instructions concerning registration are given in the Schedule of Classes issued at the beginning of each new semester or term.

Current UMES students will be registered late in the semester preceding the semester for which they are registering. The dates for this registration are listed in the Schedule of Classes for each semester or term and in the Academic Calendar. The signature of the designated faculty advisor must appear on the registration schedule.

Entering freshmen and transfer students will be registered for their first semester's courses during the regular registration period. No student is permitted to attend a class if his or her name does not appear on the official class roster.

Late Registration

A late registration fee will be charged to any student who fails to complete registration within the specified registration period. The late registration period is published each semester or session in the Academic Calendar.

Adding A Class

Students who are properly registered may add courses during the first week of instruction each semester. Only in exceptional cases, and with the permission of the **Dean**, will a student be permitted to enter a class later than one week after the beginning of instruction.

Dropping A Class

Students may drop courses during the first two weeks of the current semester. Only in exceptional cases, and with the permission of the **Dean**, will a student be permitted to drop a course later than the end of the drop period. Should a student officially exit a class prior to the end of the drop period, no grade will be recorded on the transcript. The end of the drop period is published in the Schedule of Classes for each semester or term and in the Academic Calendar.

The change in registration is effective on the date the form is submitted to the Office of the Registrar. Section changes are considered to be changes in registration and must be made through the Office of the Registrar. Students must have the approval of the Department Chair and advisor for all transactions regarding registration or change in registration.

WITHDRAWALS

From A Class

Should a student officially exit a class after the drop period, but before the end of the withdrawal period, a grade of "W" will be recorded on the transcript. **Withdrawal requires the signature of the Advisor and the Instructor of the course in which the student is withdrawing.** The end of the withdrawal period is published each semester or term in the Academic Calendar.

From the Institution

If a student desires or is compelled to withdraw from UMES for any cause at any time during the academic year, the student should complete an application for withdrawal from the Office of the Registrar, obtain the proper signatures as indicated on the form, and file it with the Office of the Registrar. The Office of the Registrar will record a grade of "W" for all courses.

Withdrawal grades are not included in the computation of grade point averages or in the determination of the level of the total hours attempted. In the case of a minor, withdrawal will be permitted only with the written consent of the student's parent or guardian.

Penalties for Unofficial Withdrawal

A student who fails to withdraw in the required manner will not be entitled to an honorable dismissal, will forfeit the right to any refund to which he/she might otherwise be entitled, and will receive marks of failure in all courses being carried.

WITHDRAWAL AND REFUND OF FEES

Fall and Spring Semesters

Any student who desires or is compelled to withdraw from the University for any cause at any time during the academic year should secure an application for withdrawal from the Office of the Registrar, obtain the proper signatures and file it in the Office of the Registrar.

The effective date for withdrawals, with regard to refunds and grades, is the date the form is filed at the Office of Admissions and Registration. No student may withdraw after the last scheduled day of classes in a given semester. Exceptions will be referred to the Academic Appeals Board.

Students withdrawing from the University during a semester will be credited for all academic fees charged to them, in accordance with the following schedule.

<u>Period from First Day of Instruction</u>	<u>Refundable Percentage</u>
Two weeks or less	80
Between two and three weeks	60
Between three and four weeks	40
After four weeks	No refund

No part of the charges for room and board is refundable, except when the student officially withdraws from the University or is given permission by the appropriate officials of the University to move from the residence facility and/or to discontinue dining hall privileges. When permission is given to discontinue dining hall privileges, the meal card must be turned in to the Office of the Vice President for Administrative Affairs. In these cases, the room refund will be computed by deducting ten percent (10%) of the charge for the semester as a service charge and the remainder will be prorated on a weekly basis. Refunds to students for board (dining hall) charges will be calculated in the same manner. No room and/or board refunds will be made after the fourteenth week of the semester. Weekly basis shall be defined as a complete week or any fraction thereof.

Title IV Recipients (*UMES Refunds and the "Return of Title IV Funds" Policy*)

If a student withdraws or is expelled from UMES, then the school or the student may be required to return some of the federal funds awarded to the student. The student may also be eligible for a refund of a portion of tuition, fees, and room and board paid to UMES for the semester. If the student received financial assistance from outside of the student's family, then a portion of the refund will be returned to the grant, scholarship, or loan source from which the assistance was received.

If a student will be withdrawing, then the student should visit the Office of the Registrar and complete a "Notification of Withdrawal" form to begin the withdrawal process. This procedure will enable UMES to refund the maximum possible institutional charges. ***The withdrawal will not be complete until the student has returned the Notification of Withdrawal form (with all appropriate signatures) to the Office of the Registrar.***

UMES' refund policy exists for calculating the refund of institutional charges. The federal "Return of Title IV Funds" formula dictates the amount of Federal Title IV aid that must be returned to the federal government by the school and the student. The federal formula is applicable to a student receiving a federal Pell grant or federal aid other than Federal Work-study, if that student withdraws on or before the 60% point in time in the semester. The student may also receive a refund of institutional charges through UMES' refund policy (see above). Room and/or Board charges will be pro-rated according to the policy of the Office of Residence Life.

The federal formula requires a return of Title IV aid if the student received federal assistance in the form of a Pell Grant, Supplemental Educational Opportunity Grant (SEOG), Federal Direct Student Loan or PLUS Loan and withdrew on or before completing 60% of the semester. The percentage of Title IV aid to be returned is equal to the number of calendar days remaining in the semester divided by the number of calendar days in the semester. Scheduled breaks of more than four consecutive days are excluded.

If any funds are to be returned after the return of Title IV aid, they will be used to repay UMES funds, state funds, other private sources, and the student in proportion to the amount received from each non-federal source, as long as there is no unpaid balance at the time of withdrawal. If there is an unpaid balance, then all aid sources will be repaid before any funds are returned to the student.

NOTE: If funds are released to a student because of a credit balance on a student's account, then the student may be required to repay some of the federal grants if the student withdraws. A work sheet used to determine the amount of refund or Return of Title IV Aid is available upon request.

REGISTRATION AT OTHER INSTITUTIONS

Written permission must be obtained from the Department Chair and the Dean before students advance their hours earned toward a UMES degree through study at another institution of higher learning or at another campus of the University of Maryland. The appropriate forms may be obtained from the Office of the Registrar. After having obtained the approval of the Department Chair and the Dean, the permission form should be filed in the Office of the Registrar. The same rule applies for both the fall and spring semesters and for any summer or winter sessions.

Credits earned at institutions other than the University of Maryland campuses do not carry quality points and have no effect on the student's grade point average. The cumulative grade point average is based solely on credits attempted at the University of Maryland campuses. A maximum of seventy (70) credits will be accepted from an accredited two-year community or junior college.

A maximum of seventy (70) credits will be accepted from an accredited two-year community or junior college. Students requesting permission to register in the summer or winter program of another school will not be permitted to take more semester hours than there are weeks in that school's summer or winter session. A student who earns a grade of "F" or "D" in residence at UMES may not advance credit hours earned toward a UMES degree by repeating the course at another institution.

Ordinarily, all students must take their final thirty (30) credit hours at UMES. Under extraordinary circumstances, the Dean may grant permission to take a maximum of six hours of the final thirty (30) hours on another campus. However, in no case does this permission waive the minimum residence requirement of 30 semester hours.

READMISSION AFTER VOLUNTARY WITHDRAWAL

A student who voluntarily withdraws or who is administratively withdrawn from the University for reasons such as medical, judicial, personal, financial, lack of interest, and employment may apply for readmission to the University by completing and filing an Application for Readmission with the Office of the Registrar. Applications for Readmission must be filed by the following deadlines: **November 1st** – Students wanting to return for the Winter or Spring Session. **April 1st** – Students wanting to return for the Summer and Fall Session

Applications may be obtained by writing to: Office of the Registrar, Student Development, Cultural and Recreation Center, University of Maryland Eastern Shore, Princess Anne, MD 21853-1299.

REINSTATEMENT FOLLOWING ACADEMIC DISMISSAL

When a student is academically dismissed from UMES, he/she must complete the **Application for Reinstatement** prior to the desired date of reinstatement. Reinstatement will not normally be granted by the UMES Academic Appeals Board until at least one semester has elapsed from the time of the student's dismissal. Reinstatement is not automatic; however, if the Application for Reinstatement is denied, a student may again apply for reinstatement after a lapse of an additional semester.

Upon being reinstated following Academic Dismissal, the student will be placed on Academic Probation and will be subject to the conditions of Academic Probation.

Any appeal concerning the regulation governing academic probation or academic dismissal shall be directed to the School's specific Academic Appeals Board, which is empowered to grant relief in unusual cases if the circumstances warrant such action.

REPEATING OF CLASSES

Any course may be repeated, but if a student repeats a course in which he or she has already earned a passing grade, the subsequent attempt shall not increase the total hours earned toward the degree. Credits for repeated courses will be counted only once toward graduation requirements and in computation of the cumulative grade point average. Only the highest grade will be used in the computation of the cumulative grade point average; however, all grades earned remain on the permanent record with repeated courses identified. Repeat credits and corresponding grades are used when computing the semester grade point average. If a course a student wishes to repeat has been discontinued or has not been offered for two semesters, the student should request the department Chairman and Dean to designate a substitute course, which when taken, will remove the grade of the discontinued course. The course so named and the student involved should be reported in writing to the Office of the Registrar.

Academic departments have the prerogative to limit the number of times a student may attempt to successfully complete core major courses.

SELECTING A MAJOR

In selecting a major or a minor, students must consult with the chairs of the department(s) involved no later than the beginning of their junior year.

Students may declare a major at any time up to the beginning of their junior year. At that time they will be assigned a faculty advisor and fill out an official **Request for Change of Major, Minor or Concentration Form**. Declaring a major does not in any way bind a student permanently to that program.

Freshmen Who Do Not Declare A Major

For those students who enter as freshmen and do not declare a major, General Education Requirement courses may be taken; **however a major must be declared before the second semester of the sophomore year**. It is highly recommended that students become familiar with the requirements for different majors which interest them, and be aware of all the introductory level courses needed, and the frequency which departments offer these and other courses for those majors. Schedules should be planned strategically and in consultation with the academic advisor.

Changing A Major

It is not unusual for a student to change a major after entering college. Students are encouraged to explore several programs within the disciplines involved before deciding upon their major programs and to consult with faculty members and counselors concerning their future plan. A student may change a major at any time simply by completing a new **Request for Change of Major, Minor or Concentration Form**. Major changes are processed prior to the beginning of the fall and spring semesters. These forms may be obtained from the Office of the Registrar.

Subsequently, students entering on or after fall 1998 will be eligible to take the examination only after successful completion of English 101 and they must be enrolled in English 102 the semester that they take the EPE. *ENGL 001 is a Co-Requisite for ENGL 102; and, ENGL 003 is the Co-Requisite for ENGL 102H Honor's Students. ENGL 002 is a Requisite for Transfer Students who have taken English 102 prior to attending UMES and for UMES students who took English 102 at another higher education institution.*

TRANSFER CREDIT

Transfer of General Education

Students transferring from Maryland institutions of higher education who have completed the General Education requirements at the sending institution shall have met the general education requirements at UMES. In cases where the general education requirements at UMES exceed those of the sending institution, the transfer student will be required to take no more than the same number of general education credits required of the native student. The additional courses will be according to the distribution requirements of UMES. For a detailed explanation on course transfer policy, see [Appendix 1](#).

Transfer from Colleges and Universities

A maximum of seventy (70) credits will be accepted from an accredited two-year community or junior college.

UMES does not limit the number of credits transferable for work completed at four-year colleges. **However, in order to graduate, a student must complete the last 30 semester hours at UMES.**

Maryland Community College Articulated Programs

An articulated transfer program is a list of community college courses that best prepare the applicant for a particular course of study at the University of Maryland Eastern Shore. If the applicant takes appropriate courses that are specified in the articulated program guide and earns an acceptable grade, he/she is guaranteed transfer with no loss of credit. Articulated career program guides help students plan their new programs after changing career objectives. The guides are available at the Office of Undergraduate Admissions at the University of Maryland Eastern Shore and in the transfer advisor's office at each of the community colleges. Applicants can eliminate all doubt concerning transfer of courses by following programs outlined in the guide.

Credit from Other Universities and Colleges

In most cases credit will transfer from institutions of higher education accredited by a regional accrediting association (e.g., Middle States Association of Colleges and Schools; New England Association of Schools and Colleges; North Central Association of Colleges and Schools; Northwest Association of Schools and Colleges; Southern Association of Colleges and Schools; Western Association of Schools and Colleges), provided that the course is completed with at least a grade of C and the course is similar in content and level to work offered at UMES. The applicability of these courses to the particular course of study at UMES will be determined by an academic advisor/evaluator in the office of the appropriate department.

Students Planning to Transfer, or Attend Graduate or Professional School

Anyone planning to transfer from UMES should discuss transfer plans with a counselor or academic advisor. This consultation should begin as soon as the decision to transfer has been made so that any requirements the receiving institution demands of its students during the first two-years of school can be met.

Students intending to enter a professional school or graduate school should familiarize themselves with the requirements for admission to these schools and plan their programs with their academic advisors, accordingly.

UNIVERSITY SCHOLARS PROGRAM

The UMES Scholars Program is an initiative to bring outstanding students to UMES with emphasis on under-represented groups in certain academic areas. Initially, participants will be selected on a competitive basis from the State of Maryland, and access will be eventually extended to non-Maryland students. The program is opened to students who meet the academic requirements and are interested in any major offered at UMES. Scholars must be citizens or permanent residents of the United States.

The Scholars are expected to gain experience through travel and study-abroad programs, summer internships, community service, and research projects. Each student is assigned to a mentor in a particular area of interest to guide these experiences. Students are encouraged to produce scholarly work that will allow them to present at professional meetings as well as to publish in appropriate journals. Participants are expected to attend group meetings and seminars and to visit various businesses, colleges and universities, and other educational sites.

Students who are at the top of their class, hold at least a 3.5 grade point average, and have outstanding SAT scores are eligible to apply for admission. Part of the selection process includes an interview, evidence of leadership ability, evidence of potential to be successful in an academic environment, perceived ability to make a contribution to the University and the community, and desire to attend graduate or professional school. To remain in good academic standing, students must maintain full-time status and earn at least a 3.3 grade point average.

WINTER SESSION AND SUMMER SCHOOL

The Office of Academic Affairs provides the opportunity to take advantage of a wide range of winter and summer learning experiences in condensed format that support educational, career and personal enrichment goals. These activities are designed to reach the total community with courses, workshops and programs that are offered to populations of all ages from children to retirees. The standards of academic achievement and the quality of work required are maintained at the same level as during the regular term.

The office has the supervisory responsibility in the planning, coordinating and administering the University's Winter and Summer Sessions and Outreach activities. These programs have been designed to help optimize student progress and to enhance the University's four-year graduation rates by providing degree-related courses work for undergraduate and graduate students.

The winter session is a three-week session which runs from the first full-week of January through the third week of January. Courses are not offered on Fridays', unless a make-up day is required. Students cannot take more than three (3) credits, or one four (4) credit course, or a three (3) credit lecture and a one (1) credit lab during the Winter Session.

The summer session features several convenient sessions varying from two five-week sessions and one ten-week session, which runs from the beginning through the end of the second session. Students can take up to six (6) credits in Summer Sessions I and II (exception is a 4 credit course or a 3 credit lecture and 1 credit lab). The total maximum number of credit hours for the entire Summer is twelve. (Example: if you take nine credits in Session III, you can only take one three-credit course in Sessions I or II).

Session Information and Procedures

Below are the policies governing the Winter and Summer sessions:

1. **“Deferments”** for the Winter and Summer Sessions for undergraduate and graduate students only can be found at www.umes.edu. “Students with an unpaid balance from the previous semester **are not eligible** for “Deferments”.
2. As always, students are responsible for adding and dropping courses that have not been **cancelled** by the Office of Academic Affairs.
3. All Winter and Summer Session balances **must be paid** by the last day of class, to avoid problems with the next semester.
4. Students should not drop a course that is to be cancelled.
5. Courses with enrollment of less than seven (7) students in either the Winter or Summer sessions are subject to cancellation.
6. Students **cannot** receive a **“Deferment”**, for the second Summer Session until the first and/or session(s) have been paid in full.
7. If a student who has pre-registered decides not to take the course in either of these sessions, the student **must withdraw** from the **University** to avoid being billed for that course and receiving a failing grade. **Contact the Office of the Registrar at 410-651-6143 regarding completion of the appropriate paperwork.**
8. All students are required to complete a Payment Confirmation form Winter and Summer sessions. Contact the Office of Student Accounts at 410-651-6092/6093, for further information.

The Schedule, containing detailed information concerning the number of sessions, and course offerings, is located on the UMES webpage at www.umes.edu under Academic Affairs.

Withdrawal Refund Policy

Academic Affairs is committed to pay faculty even if the student withdraws and gets a refund beyond the first week of classes. Courses with an enrollment of less than seven are subject to cancellation by the Office of the Vice President for Academic Affairs. Students should not DROP courses which are scheduled for cancellation.

Winter Session - (Three-Week Session)

<u>Begins First Day of Instruction</u>	<u>Refundable Percentage</u>
Less than Three days	70%
Three to Four days	50%
Five days	30%
Greater than five days	No Refund

Summer Sessions - (Five-Week Sessions)

<u>Begins First Day of Instruction</u>	<u>Refundable Percentage</u>
Less than Four days	70%
Four days	50%
Five to Ten days	30%
After Ten days	No Refund

(Ten-Week Session)

<u>Begins First Day of Instruction</u>	<u>Refundable Percentage</u>
Less than Eleven days	70%
Eleven to Fifteen days	50%
Sixteen to Twenty days	30%
After Twenty days	No Refund

GENERAL REQUIREMENTS FOR ACADEMIC MAJORS AND MINORS

The University's individual departments have set forth requirements that must be met in order to complete a major in a given area of study. For specific major requirements, students should consult the appropriate departmental section of this catalog and their academic advisors.

Each major and minor has its own minimum number of required hours. To fulfill a major generally involves a minimum of 36 credit hours of course work. To earn a minor in a subject, a minimum of 18 semester hours, according to departmental specifications, must be met. For courses completed outside the major or minor, an overall grade point average of "C" is necessary for graduation. PSYC 305 and HUEC 203 are similar courses, taught in different departments for their majors. Students may have credit for one or the other but not both courses.

MAJOR CORE REQUIREMENTS

A grade of "C" or better is required in every course counted toward the major and/or minor.

SUPPORTING AREA REQUIREMENTS

A grade point average of "C" or better is required for the group of courses representing the supportive area requirements.

GENERAL EDUCATION REQUIREMENTS¹ (GEN ED CURR AREA)

All students are expected to complete a common body of academic course work. The General Education Requirements are designed to promote the development of a comprehensive educational base which will effectively support a student's choice of a major concentration. Deviations from the General Education Requirements may occur in certain areas owing to specific requirements of the major. Therefore, students should consult with their freshman or departmental advisors when making course selections. See Course Descriptions for descriptions of courses in General Education. Fundamentals courses and MATH 101 do not meet the General Education Requirement and does not apply toward graduation requirements. General Education Requirements are distributed as follows:

Curriculum Area I Arts and Humanities

Credit 9

Students must select ENGL 203² plus one course in each of two disciplines.

Discipline A: ARTS

ARTS 101, ARTS 310, MUSI 100, MUSI 101, MUSI 109

Discipline B: HISTORY

HIST 101/101H, HIST 102/102H, HIST 201, HIST 202, PHIL 201

Discipline C: LANGUAGE

FREN 101 or FREN 102, SPAN 101 or SPAN 102, ASLS 203

Discipline D: LITERATURE

ENGL 204, ENGL 205, ENGL 206, ENGL 207

Discipline E: SPEECH

ENGL 203¹

Curriculum Area II - SOCIAL AND BEHAVIORAL SCIENCES

Credit 6

Students must select one course in each of two disciplines.

Discipline A: SOCIAL SCIENCES

AGEC 213 or AGECE 213H

ECON 201 or ECON 201H

ECON 202 or ECON 202H

GEOG 201 or GEOG 202

HIST 101/101H, HIST 102/102H, HIST 201, HIST 202, PHIL 201

POLI 200 or POLI 200H,

POLI 220H or POLI 342

SOCI 101 or SOCI 111H

¹A minimum of 40 credits is required.

²Students must pass ENGL 101 and ENGL 102 with grade of "C" or above before taking ENGL 203

Discipline B: BEHAVIORAL SCIENCES
CRJS 101
HUEC 203, HUEC 220, HUEC 361
PSYC 200
SOC 201

Curriculum Area III - BIOLOGICAL AND PHYSICAL SCIENCES

Credit 7-8

Students must select from the following: Two science courses; one **must** be a laboratory course
ANPT 114, ANPT 114H
BIOL 101, BIOL 103 (lab),
CHEM 101, CHEM 102, CHEM 103 (lab), CHEM 104 (lab)
ENVS 101, NUDT 210
PLSC 184, PLSC 185 (lab).

Students in Agriculture, **Engineering, Exercise Science, Human Ecology Physician Assistant and Rehabilitation Services only** must select from the following:

- Student must have a strong background in Chemistry and Biology to take CHEM 111 and CHEM 112 or BIOL 111 and BIOL 112.
- Students **CANNOT** take CHEM 111 if they are currently taking MATH 101.

ANPT 114, ANPT 114H
BIOL 101, BIOL 103 (lab),
BIOL 111, BIOL 113 (lab), BIOL 112, BIOL 114 (lab),
CHEM 101, CHEM 102, CHEM 103 (lab), CHEM 104 (lab), CHEM 111, CHEM 113 (lab)
ENVS 101, NUDT 210
PHYS 121, PHYS 121H, PHYS 122, PHYS 161,
PHYS 182H, PHYS 263, PLSC 184, PLSC 185 (lab).

Curriculum Area IV – MATHEMATICS²

Credit 3-8

One course at or above the level of College Algebra
MATH 102, if student needs MATH 101³, he/she **must** take that before MATH 102;
MATH 109, if students need MATH 101³, they **must** take that before Math 109;
MATH 110, MATH 111H, MATH 112.

Curriculum Area V - ENGLISH COMPOSITION¹

Credit 9

ENGL 101 or ENGL 101H
ENGL 102 or ENGL 102H
ENGL 305/H/Online or ENGL 310/H/Online

Curriculum Area VI - EMERGING ISSUES

Credit 1-7

Courses identified as being essential to a full program of general education for UMES students. This course is required of all students:

GNST 100 First Year Experience or Departmental orientation course

Credit 1

In addition, students must consult with their departmental advisor for any additional Emerging Issues course requirement (up to 6 additional credits). Students may select from the following three-credit courses:

EXSC 111 – Personalized Health Fitness⁴
HUEC 230 - Multicultural Perspectives on Families in the U.S.
TMGT 306 – Ecology and Cultural Tourism

Credit 3

Total Required for General Education

Credit 40-43

¹Students must pass ENGL 101 and ENGL 102 with grade of “C: or above before taking ENGL 203

²Most majors require MATH 109 or Higher.

³MATH 101 does not satisfy the General Education Requirement or count towards graduation.

⁴EXSC 111 **cannot** be repeated for credit.

DEPARTMENT OF AGRICULTURE, FOOD AND RESOURCE SCIENCES

www.umes.edu/SANS

Dr. Robert B. Dadson, Acting Chairperson

MISSION

The mission of the Department of Agriculture, Food and Resource Sciences is to provide students with an active learning environment that will prepare them to compete successfully in a global society. Graduates of our programs will be poised to make significant, positive contributions to the food and agricultural sciences, which is in keeping with the land-grant philosophy of learning, discovery, and engagement. Thus, it is our never-ending task to provide students with a nurturing environment that offers opportunities for discovery through experiential learning. Accomplishment of our task will result in graduates who have;

- skills in information management;
- critical and analytical thinking skills necessary to integrate theory and real-world situations for making management decisions;
- the ability to communicate effectively;
- the ability to compete in a highly technological, computer-information oriented, global society.

Additionally, we strive to prepare students who can interact successfully in an ethnically diverse workforce that is comprised of people of socially and culturally diverse backgrounds.

OBJECTIVES

The objectives of the Department of Agriculture, Food and Resource Sciences are as follows:

1. To provide an interdisciplinary program inclusive of mathematical, biological, physical and social sciences, and humanities to support areas of concentration in the food and agricultural sciences, including conservation and preservation of our natural resources
2. To prepare students to interpret and apply scientific principles and techniques in the ever-evolving food, agricultural, and environmental sciences, on a global basis
3. To promote civic responsibilities of students through community interactions
4. To provide students with the applied information technology skills necessary to compete successfully in today's workforce.

DEGREES OFFERED

Bachelor of Science - Agribusiness
Bachelor of Science - General Agriculture
Master of Science¹ - Food and Agricultural Sciences
Doctor of Philosophy¹ - Food Science and Technology

DEPARTMENTAL REQUIREMENTS

The admission of students to the undergraduate programs in the Department of Agriculture, Food and Resource Sciences is based upon the general admission requirements of the University. Successful completion of PRAXIS I and minimum GPA of 2.75 are required for admission to the Agriculture Education concentration offered in the General Agriculture degree program.

¹See Graduate Catalog

Agribusiness major - Students majoring in Agribusiness must complete a total of 120 credit hours of University courses. This includes a minimum of 45 semester hours of General Education Requirements, 15 semester hours of Departmental Core courses¹, 48 semester hours of Major Core courses¹, 6 semester hours of Supportive courses², and 6 semester hours of free electives.

General Agriculture major - Students majoring in General Agriculture must complete a total of 120 credit hours of University courses. This includes a minimum of 42-43 semester hours of General Education Requirements, 15 semester hours of Departmental Core courses¹, 24 - 48 semester hours of Major Core courses¹, 18-35 semester hours of Supportive courses², and 3-5 semester hours of free electives, depending on the Option Area chosen. The Option Areas include;

Agriculture Education Option: 42, 15, 45, 18 and 3 semester hours of General Education Requirements, Departmental Core Courses¹, Major Core Courses¹ Supportive Courses² and Free Elective Courses, respectively.

Agricultural Studies Option: 41, 15, 27, 37 and 0 semester hours of General Education Requirements, Departmental Core Courses¹, Major Core Courses¹, Supportive Courses² and Free Elective Courses, respectively.

Animal and Poultry Science Business/Technology Option I: 43, 15, 27, 30 and 5 semester hours of General Education Requirements, Departmental Core Courses¹, Major Core Courses¹, Supportive Courses² and Free Elective Courses, respectively.

Animal and Poultry Science Pre-Veterinary/Pre-Professional Option II: 43, 15, 24, 35 and 3 semester hours of General Education Requirements, Departmental Core Courses¹, Major Core Courses¹, Supportive Courses² and Free Elective Courses, respectively.

Plant and Soil Science Option: 43, 15, 24, 35 and 3 semester hours of General Education Requirements, Departmental Core Courses¹, Major Core Courses¹, Supportive Courses² and Free Elective Courses, respectively.

AGRIBUSINESS

COMMON REQUIRED COURSES

Agribusiness Major¹ – Students majoring in Agribusiness must complete a minimum of 120 semester hours of University courses. Included in the 120 semester hours are 15 credits of program core requirements comprising; AGECE 213, AGME 283, AGRI 301, ANPT 114 , PLSC 184, and PLSC 185.

CAREER OPPORTUNITIES

A degree in Agribusiness prepares students to teach, to conduct research, to pursue graduate and professional degrees, to work in government and business, and numerous other related jobs such as: Business and Technology, Marketing and Management, International Trade and Development, Economic Research, Commodity Brokerage, Computer Science, Public Relations Specialist, Market Forecaster, Technical Representative, Extension Educator, Market Reporter, Financial Analyst, and Financial Representative.

REQUIRED MAJOR COURSES²

AGBU 223	AGECE 333	ECON 200/H	ACCT 202
AGBU 313	AGECE 423	ECON 300	ACCT 202
AGBU 323	AGECE 433		CSDP 220
AGBI 471	AGECE 443		MATH 112
	AGECE 453		

¹Students must receive a grade of “C” or better in each course in this area.

²A minimum grade of “C” or better must be achieved in these courses.

CURRICULUM GUIDE FOR AGRIBUSINESS

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ANPT 114	4	GEN ED CURR AREA IV	3
ENGL 101/H	3	AGME 283	3
MATH 109	3	ECON 202/H	3
ECON 201/H	3	MATH 112	4
AGNR 111	<u>1</u>	ENGL 102/H	3
	14	ENGL 001	<u>0</u>
			16

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
GEN ED CURR AREA I	3	GEN ED CURR AREA I	3
ENGL 203	3	AGBU 223	3
GEN ED CURR AREA II	3	GEN ED CURR AREA III	4
PLSC 184	3	CSDP 220	<u>4</u>
PLSC 185	1		14
AGEC 213	<u>3</u>		
	16		

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
AGBU 313	3	ACCT 202	3
ACCT 201	3	GEN ED CURR AREA IV	3
GEN ED CURR AREA III	4	ENGL 305/Online	3
AGBU 323	3	Elective ²	3
ECON 300	<u>3</u>	AGEC 333	3
	16	AGRI 301	<u>1</u>
			16

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
AGEC 433	3	AGEC 423	3
AGEC 463	3	AGEC 443	3
AGEC 453	3	Supportive Course ¹	3
Supportive Course ¹	3	Elective ²	<u>3</u>
Elective ²	<u>3</u>		12
	15		

Total Credit Hours: 120

¹Students must select a minimum of six (6) credit hours from these supportive courses: ACCT 301, AGBU 300, AGBU 371, AGBU 400, AGECE 419, BUAD 302, BUAD 307, BUAD 411, BUAD 412, CSDP 240, ECON 301, ECON 302, ECON 303, ECON 304 or ECON 402.

²Students may take any course offered at the University for which they meet the prerequisites.

GENERAL AGRICULTURE

COMMON REQUIRED COURSES FOR ALL CONCENTRATIONS

All General Agriculture¹ majors in the Department of Agriculture, Food and Resource Sciences with concentrations in Agriculture Education, Agricultural Studies, Animal and Poultry Science Option I (Business/Technology), Animal and Poultry Science Option II (Pre-Veterinary/Pre-Professional), and Plant and Soil Science must complete a total of 15 semester hours of Departmental Core Courses which include: AGEC 213, AGME 283, AGRI 301, ANPT 114, PLSC 184, and PLSC 185.

CAREER OPPORTUNITIES

A degree in General Agriculture prepares students to teach, to conduct research, to pursue graduate and professional degrees, to work in government and business, and numerous other related careers or jobs such as: Agricultural Education, Veterinary Medicine, Animal Management and Production, Livestock Production Management, Animal Health Product Sales, Feed Sales/Management, Livestock Equipment Sales/Mgt, Livestock Procurement, A.I. Breeding Technician, Livestock Feedlot Operations, Market Forecasting, Food Safety, Plant Breeding and Biotechnology, Greenhouse & Nursery Management, Landscape Design, Water Quality, Nutrient Management, Food and Fiber Processing, Natural Resource Sciences, Extension Education, Housing & Environmental Quality, Livestock Insurance, Quality Assurance, Farm Management, Stable Management, Market Reporting, Meat Grading, geospatial information technologies, soil chemists, soil biologists, plant biochemists, plant pathologists, entomologists, horticulturists, agronomists, soil hydrologists, and soil microbiologists.

REQUIRED MAJOR COURSES

AGRICULTURE EDUCATION (Grades 7-12)²

EDCI 200	PSYC 303
EDCI 201 ³	PSYC 307
EDCI 311	
EDCI 400	
EDCI 406	
EDCI 409	
EDCI 410	
EDCI 427	
EDCI 480	
EDCI 490	

¹A minimum grade of "C" or better must be earned in each of these courses.

²For additional program requirements for the Agriculture Education (Teaching) major, please refer to the Department of Education and the Teacher Education Handbook. UMES' Teacher Education Programs are accredited by the National Council for Accreditation of Teacher Education and approved by the Maryland State Department of Education.

³Does not count toward graduation.

**CURRICULUM GUIDE FOR GENERAL AGRICULTURE
AGRICULTURE EDUCATION (Grades 7-12)^{1 & 2}**

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ANPT 114	4	Elective Agricultural course ³	3
ENGL 101	3	AGME 283	3
MATH 109	3	GEN ED CURR AREA I	3
BIOL 111	3	ECON 202/H	3
BIOL 113	1	ENGL 102	3
AGNR 111	<u>1</u>	ENGL 001	<u>0</u>
	15		15

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
PSYC 200	3	GEN ED CURR AREA I	3
ENGL 203	3	ENGL 305 or ENGL 310	3
CHEM 111	3	PSYC 303	3
CHEM 113	1	PSYC 307	3
EDCI 200	3	Elective Agricultural Course ³	<u>3</u>
EDCI 201 ⁴	1		15
AGEC 213	<u>3</u>		
	17		

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BUED 212	3	EDCI 406	3
PLSC 184	3	EDCI 409	3
PLSC 185	1	AGRI 301	1
AGED 313	3	Elective Agricultural course ³	3
Elective Agricultural course ³	3	Elective Agricultural course ³	<u>3</u>
Elective Agricultural course ³	<u>3</u>		13
	16		

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
EDCI 311	3	EDCI 400	3
EDCI 427	3	EDCI 480	6
EDCI 410	3	EDCI 490	<u>6</u>
EDSP 428	3		15
Elective Agricultural course ³	<u>3</u>		
	15		

Total Credit Hours: 120

¹A minimum grade of "C" or better must be earned in each of these courses.

²A grade of "C" or better will be required in the courses taken to satisfy the Agriculture Education Concentration requirement.

³200-300 level agricultural courses.

⁴Does not count toward graduation.

**GENERAL AGRICULTURE
AGRICULTURAL STUDIES**

All General Agriculture¹ majors in the Department of Agriculture, Food and Resource Sciences with concentrations in Agricultural Studies must complete a total of 15 semester hours of Departmental Core Courses which include: AGEC 213, AGME 283, AGRI 301, ANPT 114, PLSC 184, and PLSC 185.

REQUIRED MAJOR COURSES¹

Students must select a minimum of 27 credit hours of which one three credit-hour course must be selected from at least three current Department Programs.

¹A minimum grade of “C” or better must be earned in each of these courses.

**CURRICULUM GUIDE FOR GENERAL AGRICULTURE
AGRICULTURAL STUDIES**

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ANPT 114	4	GEN ED CURR AREA VI ¹	3
ENGL 101/H	3	ENGL 102/H	3
MATH 109	3	ENGL 001	0
PLSC 184	3	GEN ED CURR AREA VI ¹	3
PLSC 185	1	GEN ED CURR AREA III ²	3
AGNR 111	<u>1</u>	GEN ED CURR AREA III ²	1
	15	ECON 202/H	<u>3</u>
			16

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
AGME 283	3	GEN ED CURR AREA II ³	3
ENGL 203	3	Agricultural Studies Core Course ⁴	3
AGEC 213	3	Agricultural Studies Core Course ⁴	3
Agricultural Studies Core ⁴	3	GER REQ CURR AREA I ⁵	3
GEN ED CURR. AREA III	<u>3</u>	200-400 Level Supportive Course ⁶	<u>3</u>
	15		15

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 305/Online or		AGRI 301	1
ENGL 310/Online	3	Agricultural Studies Core Course ⁴	6
Agricultural Studies Core Course ⁴	3	200-400 Level Supportive Course	3
Supportive Area Course	4	Supportive Course	2
200-400 Level Supportive Course ⁶	2	GEN ED CURR. AREA I ⁵	<u>3</u>
200-400 Level Supportive Course ⁶	<u>2</u>		15
	14		

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
Agricultural Studies Core Course ⁴	3	Agricultural Studies Core Course ⁴	3
200-400 Level Supportive Course ⁶	3	Agricultural Studies Core Course ⁴	3
200-400 Level Supportive Course ⁶	3	Supportive Course	3
200-400 Level Supportive Course ⁶	3	Supportive Course	3
Supportive Course	<u>3</u>	200-400 Level Supportive Course	<u>3</u>
	15		15

Total Credit Hours: 120

¹Student must select an **Elective** from GEN ED CURR AREA VI.

²Student must select a lecture and laboratory to satisfy the GEN ED CURR AREA III requirement.

³Student must select an **Elective** from GEN CURR AREA II: Behavior Science.

⁴Students must select 27 credit hours of which one 3credit hour course must be selected from at least three current Department Programs.

⁵Student must select an **Elective** from GEN CURR AREA I.

⁶A minimum of 20 credit hours must be selected from the 200-400 level.

Student must select 37 credit hours to enhance and strengthen the students' chosen Food & Agricultural Science interest area.

GENERAL AGRICULTURE

ANIMAL AND POULTRY SCIENCE BUSINESS TECHNOLOGY OPTION¹

All General Agriculture¹ majors in the Department of Agriculture, Food and Resource Sciences with concentrations in, Animal and Poultry Science Option I (Business/Technology), Animal and Poultry Science Option II must complete a total of 15 semester hours of Departmental Core Courses which include: AGECE 213, AGME 283, AGRI 301, ANPT 114, PLSC 184, and PLSC 185.

REQUIRED MAJOR COURSES

ANPT 214	ANPT 304	ANPT 223
	ANPT 304	ANPT 313
	ANPT 424	ANPT ²

¹A minimum grade of “C” is required for each course.

²Student must select three (3) 400 level ANPT production courses

**GENERAL AGRICULTURE
ANIMAL AND POULTRY SCIENCE BUSINESS AND TECHNOLOGY OPTION I**

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ANPT 114	4	GEN ED CURR AREA VI ²	3
ENGL 101/H	3	ECON 202/H	3
BIOL 111	3	BUAD 132	3
BIOL 113	1	MATH 110 or Higher	3
AGNR 111	1	ENGL 102	3
GEN ED CURR AREA I	<u>3</u>	ENGL 001	<u>0</u>
	15		15

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ANPT 223	3	AGME 283	3
CHEM 111	3	CHEM 112	3
CHEM 113	1	CHEM 114	1
PLSC 184	3	BIOL 222	3
PLSC 185	1	BIOL 223	1
GEN ED CURR AREA I	<u>3</u>	ANPT 214	<u>4</u>
	14		15

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
AGEC 213	3	ACCT 202	3
ACCT 201 ³	3	ANPT 304	4
CHEM 331 or		AGRI 301	1
CHEM 211 and CHEM 213	4	BIOL 301 and BIOL 303 or	
ANPT 313	3	AMIC 324	4
ENGL 203	<u>3</u>	ANPT 400 Level Elective	<u>3</u>
	16		15

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BUED 212	3	ENGL 305	3
ANPT 400 Level Elective	3	ANPT 424	4
GEN ED CURR. AREA II ⁴	3	ANPT 400 Level Elective	3
Free Elective ⁵	5	300-400 level course ⁶	<u>3</u>
300-400 level course ⁶	<u>3</u>		13
	17		

Total Credit Hours: 120

¹A minimum grade of "C" is required for Required Major courses.

²Student must select an **Elective** from GEN ED CURR AREA VI.

³Supportive Course Requirements: ACCT 201, ACCT 202, BIOL 222, BIOL 223, BIOL 301, BIOL 303, AMIC 324, BUAD 132, BUED 212, CHEM 211, and CHEM 213.

⁴Student must select from GEN ED CURR AREA II: Behavioral Science.

⁵Students may take courses offered at the University for which they meet the prerequisite.

⁶Select 300-400 level courses from BUAD, ACCT, ECON, AGBU, or AGECE.

**GENERAL AGRICULTURE
ANIMAL AND POULTRY SCIENCE PRE-VETERINARY/PRE-PROFESSIONAL OPTION II¹**

All General Agriculture¹ majors in the Department of Agriculture, Food and Resource Sciences with concentrations in Animal and Poultry Science Option I (Business/Technology), Animal and Poultry Science Option II (Pre-Veterinary/Pre-Professional), must complete a total of 15 semester hours of Departmental Core Courses which include: AGEC 213, AGME 283, AGRI 301, ANPT 114, PLSC 184, and PLSC 185.

REQUIRED MAJOR COURSES

ANPT 214	ANPT 304	ANPT 424
ANPT 223	ANPT 313	ANPT ²

¹A minimum grade of "C" is required for each course.

² Student must select two (2) 400 level ANPT Production courses.

**GENERAL AGRICULTURE
ANIMAL AND POULTRY SCIENCE PRE-VETERINARY/PRE-PROFESSIONAL OPTION II¹**

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ANPT 114	4	GEN ED CURR AREA VI ²	3
ENGL 101	3	ENGL 102/H	3
BIOL 111	3	ENGL 001	0
BIOL 113	1	MATH 110 or Higher	3
AGNR 111	1	CHEM 112	3
CHEM 111	3	CHEM 114	1
CHEM 114	<u>1</u>	ECON 202/H	<u>3</u>
	16		16

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 203	3	ANPT 214	4
CHEM 211	3	CHEM 212	3
CHEM 213	1	CHEM 214	1
PLSC 184	3	BIOL 222 ³	3
PLSC 185	1	BIOL 223	1
AGEC 213	3	AGME 283	<u>3</u>
ANPT 223	<u>3</u>		15
	17		

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
PHYS 121	3	PHYS 122	3
PHYS 123	1	PHYS 124	1
ANPT 313	3	ANPT 304	4
GEN ED CURR. AREA I	3	AGRI 301	1
GEN ED CURR. AREA II ⁴	3	BIOL 301 and BIOL 303 or	
MATH 210, MATH 260 or		AMIC 324	<u>4</u>
AGNR Equivalent	<u>3</u>		13
	16		

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 305 or		ANPT 424	4
ENGL 310	3	ANPT 400 Level Elective	3
CHEM 341	3	Free Elective ⁵	3
CHEM 343	1	Supportive Course ⁶	<u>4</u>
ANPT 400 Level Elective	3		14
GEN ED CURR AREA I	<u>3</u>		
	13		

Total Credit Hours: 120

¹A minimum grade of "C" is required for all Required Major Courses.

²Student must select an **Elective** from GEN ED CURR AREA VI.

³Supportive course requirements: BIOL 222, BIOL 223, CHEM 211, CHEM 213, CHEM 212, CHEM 214, CHEM 341, CHEM 343, PHYS 121, PHYS 123, PHYS 122 or PHYS 124.

⁴Student must select GEN ED CURR AREA II: Behavioral Sciences

⁵Students may take any course offered at the University for which they meet the prerequisites

⁶Student must select **one** (1) course from the following: BIOL 311, BIOL 322, BIOL 326/327, BIOL 420/421, **or** BIOL 426M

**GENERAL AGRICULTURE
PLANT AND SOIL SCIENCE¹**

All General Agriculture¹ majors in the Department of Agriculture, Food and Resource Sciences with concentrations in Plant and Soil Science must complete a total of 15 semester hours of Departmental Core Courses which include: AGEC 213, AGME 283, AGRI 301, ANPT 114, PLSC 184, and PLSC 185.

REQUIRED MAJOR COURSES¹

AGRN 423	BIOL 112/H	CHEM 211/H	SOIL 203
AMIC 324	BIOL 114/H	CHEM 213/H	SOIL 204
HORT 203/H	BUED 212		

¹A minimum grade of "C" is required for each course.

**CURRICULUM GUIDE FOR GENERAL AGRICULTURE
PLANT AND SOIL SCIENCE & 2**

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
AGNR 111	1	GEN ED CURR AREA VI ³	3
ENGL 101/H	3	ECON 201/H	3
MATH 109 or Higher	3	BIOL 112	3
CHEM 111/H	3	BIOL 114	1
CHEM 113/H	1	CHEM 112	3
PLSC 184	3	CHEM 114	1
PLSC 185	<u>1</u>	ENGL 102/H	3
	15	ENGL 001	<u>0</u>
			17

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ANPT 114/H	4	SOIL 203	3
AGEC 213/H	3	AGME 283	3
HORT 203	3	BIOL 111/H	3
ENGL 203	3	BIOL 113/H	1
CHEM 211/H	3	BUED 212	3
CHEM 213/H	<u>1</u>	GEN ED CURR AREA I	3
	17	SOIL 204	<u>1</u>
			17

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 305/Online	3	AMIC 324	4
GEN ED CURR AREA I	6	AGRI 301	1
Supportive Course ⁴	3	Supportive Course ⁴	3
Supportive Course ⁵	<u>3</u>	Supportive Course ⁵	3
	15	GEN ED CURR AREA II ⁷	<u>3</u>
			14

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
AGRN 423/H	3	Plant and Soil Science Electives	7
Supportive Course ⁶	3	Plant and Soil Science Electives	3
Supportive Course ⁵	<u>7</u>	Free Elective ⁸	<u>3</u>
	13		13

Total Credit Hours: 120

¹Student must select a minimum of 24 credit hours from AGRI 483, AGRI 499, AGRN 333, AGNR 353, AGNR 283, AGRN 413, AGRN 499, AGNR 483, AGRN 463, ENTO 313, FDST 493, HORT 313, HORT 333, HORT 353, HORT 383, HORT 463, HORT 423, HORT NRS 404, PLSC 283, PLSC 474, PLSC 440, PLSC 484, SOIL 443, and AGME.

²Student must select a minimum of 1 credit hour from BIOL 222, BIOL 223, BIOL 402, CHEM 212, CHEM 214, CHEM 311, CHEM 312, CHEM 341, CHEM 343 or BUAD, BUED, ENVS, HUEC, MATH, PHYS with advisor's approval.

³Student must select an **Elective** from GEN ED CURR AREA VI.

⁴Student must select in the areas of Science or Math.

⁵Student must select an Elective, PLSC, Math or Science.

⁶Student must select a course in the Science area.

⁷Student must select from GEN ED CURR AREA II: Behavioral Science.

⁸Student may take any course offered at the University for which they meet the prerequisite

MINOR PROGRAMS

Students desiring a Minor in Agribusiness¹ must complete a minimum of 18 hours from the courses listed:

AGBU 313	AGEC 213	AGEC 333	AGEC 419
AGBU 323			AGEC 423
AGBU 371			AGEC 433
			AGEC 443
			AGEC 453
			AGEC 463

The Minor in General Agriculture¹ – A minor in General Agriculture requires a minimum of 18 hours for the Plant and Soil Sciences, or for the Animal and Poultry Sciences.

¹A grade of “C” or better will be required in the courses taken to satisfy the minor requirement.

COURSE DESCRIPTIONS FOR AGRIBUSINESS¹

AGBU 223 Introduction to Agribusiness/Honors Credit 3
The course offers definition and scope of agribusiness firms and explains the characteristics of agribusiness firms. It also examines trends of their expansion/decline and explores career opportunities available in agribusiness. Prerequisite: AGECE 213.

AGBU 300 Internship I Credit 3
This course offers the opportunity to students to observe and participate in management operation at university-approved agribusiness firms. A written appraisal of theoretical and/or applied management, economics, or business concepts observed during the internship is required. Prerequisite: Junior standing in Agribusiness.

AGBU 313 Quantitative Methods in Agribusiness/Honors Credit 3
Agribusiness problems will be addressed through the use of indices, graphics, budgeting, discounting, simulation, basic statistical measure, and micro-computers. Prerequisites: AGECE 213 and MATH 210.

AGBU 323 Agribusiness Management/Honors Credit 3
The course offers an examination and study of the organization, management, and operation of agribusiness firms with reference to the application of management principles for effective decision making. Prerequisite: AGBU 223.

AGBU 371 Seminar I Credit 1
A term paper with focus on economic, business or management analysis of current issues in agribusiness is required. Prerequisite: Junior standing in Agribusiness or Business.

AGBU 400 Internship II Credit 3
The course offers the opportunity for students to observe and participate in management operation at University-approved agribusiness firms. A written appraisal of theoretical and/or applied management, economics or business concepts observed during the internship is required. Prerequisite: Senior standing in Agribusiness.

AGBU 471 Seminar II Credit 1
A term paper with focus on economic, business or management analysis of current issues in agribusiness is required. Prerequisite: Senior standing in Agribusiness.

AGRICULTURAL ECONOMICS¹

AGECE 213 Introduction to Agricultural Economics/Honors Credit 3
Students will learn economic concepts, definition and scope of agricultural economics, business organizations in the food and fiber system, factors of production and their characteristics, market equilibrium analysis, and the role of price elasticities of demand and supply.

AGECE 333 Agricultural Price Analysis/Honors Credit 3
The course combines economic theory, statistics, and data to describe, understand, and forecast agricultural price relationships and variation in agriculture. Specifically, it covers quantitative techniques developed to determine the factors causing price variation and to measure trend, cyclical, seasonal, and random price variation. Prerequisite: AGECE 213.

AGECE 419 Agricultural Cooperatives Credit 3
The course reviews basic philosophy, the fundamental principles, objectives, structure, and management of cooperative organizations. It also explains and evaluates the place of cooperatives in the modern economic history and legislations that affect them. Prerequisite: AGECE 213.

AGECE 423 Marketing Agricultural Products/Honors Credit 3
The course examines the characteristics of the demand for and supply of farm products; alternative marketing channels, services, and costs involved in marketing are explained. The characteristics of cooperatives, what they have tried to do, and what they have done, as well as their special problems in organization, finance and control of their business are also examined. Prerequisite: AGECE 213.

¹ Honors (H) courses: Students will be given more assignments, take home problems, term papers, and exams and quizzes than regular students.

AGEC 433¹ International Agricultural Markets, Trade and Development/Honors Credit 3
The course focuses on international trade of agricultural products, including theory trade and monetary flows, national trade policies and world market structures for agricultural products. Impacts of trade on the domestic agricultural sector and the role of trade in agribusiness are also covered. Prerequisite: AGECE 213.

AGEC 443 Farm Management/Honors Credit 3
Farm management explores farming as a business, including factors affecting profits, size of the business, choice of enterprises, forms of tenure and leases, planning and management of specific farms, and principles and techniques of keeping and interpreting farm records and accounts. Prerequisite: AGECE 213.

AGEC 453 Agricultural Finance/Honors Credit 3
The course explains agricultural finance in agricultural firms and financial institutions, emphasizing financial reports and analysis, liquidity and risk, use of credit, and other financial alternatives to acquire control of farm resources. The sources of credit and acquisition of capital and decision-making are also explained. Prerequisites: AGECE 213 and ACCT 201.

AGEC 463 Agricultural Policy/Honors Credit 3
The course explains current policy issues, policy instruments, and choices in U.S. agriculture. Also, it describes the economic characteristics and problems of agriculture, evolution and significance of agricultural policies, the international dimension, and domestic policies that affect agriculture. Prerequisites: AGECE 213 and senior standing.

AGRICULTURE EDUCATION

AGED 313 Supervised Experience Programs Credit 3
This course is an overview of the job of the agri-science teacher and an examination of agricultural education programs for youth, with special emphasis on supervised experience practicums. Two hours lecture and two hours lab per week.

AGRICULTURAL MECHANIZATION

AGME 283 Engineering Principles Applied to Agriculture Credit 3
The application of engineering principles to problems in soil and water conservation, agricultural power units, machinery, agricultural electricity, structures, and animal environments will be studied. Material handling and processing of agricultural products will also be covered. Two hours lecture and two hours lab per week.

AGME 313 Agricultural Surveying Technology Credit 4
In this course engineering principles and theory of surveying, care and use of surveying equipment, measurement of horizontal distances and angles, differential and profile leveling, topographic surveying, mapping, field notes and area measurement computation methods are examined. Two hours lecture and four hours lab per week.

AGME 334 Small Power Equipment Technology Credit 4
This course examines engineering design and principles of operation, adjustment, maintenance and repair of light horsepower, single cylinder internal combustion engines, with special emphasis on the use of operator's service and repair manuals to determine specifications. Two hours lecture and four hours lab per week.

AGME 344 Agricultural Construction Materials and Procedures Credit 3
In this course, the selection and use of agricultural building materials, including concrete and masonry, lumber, plywood, finishes, and fasteners and proper safety and use of hand and power tools in agricultural construction will be covered. Two hours lecture and two hours lab per week.

AGME 354 Metal Construction and Maintenance Credit 4
This course covers the selection and application of ferrous and non-ferrous metals through autogenous welding, cold working and hot working processes in agricultural construction and maintenance. Two hours lecture and four hours lab per week.

AGME 374 Farm Tractor Power Credit 4
Principles of operation and service and maintenance of spark and compression ignition engines and auxiliary systems including hydraulics, power trains, electrical, and comfort control are covered in this course. Two hours lecture and four hours lab per week.

¹ Honors (H) courses: Students will be given more assignments, take home problems, term papers, and exams and quizzes than regular students.

AGME 384 Agricultural Electrification Credit 4
The course covers principles of electrical distribution and wiring according to governing codes of single and 3-phase service, and the selection of electrical controls and motors for agricultural application. Two hours lecture and four hours lab per week.

AGME 444 Agricultural Machinery and Power Management Credit 4
In this course, selection, sizing and operational principles required in the use of agricultural field and farmstead machine systems, cost analysis, and computer techniques are applied to planning and management of agricultural machinery systems. Two hours lecture and four hours lab per week.

AGME 454 Principles of Animal Environment and Structures Credit 4
Effects of environment on animal production principles of environment control; feed handling systems; waste management alternatives; and planning functional, economical, and environmentally controlled livestock facilities will be explored. Two hours lecture and four hours lab per week.

AGME 490 Pre-Occupational Internship Credit 4
Students will spend a period of up to 12 weeks with an approved agricultural business firm in their technical specialty, working as directed in management related tasks. Prerequisites: 54 credit hours and permission of instructor.

AGME 499 Special Topics Credit 1-4
This course requires a written report and an oral presentation of agricultural mechanization related topics. Prerequisite: Permission of instructor.

AGRICULTURE AND NATURAL RESOURCES

AGNR 111 First Year Experience Seminar Credit 1
This course helps to prepare students for career opportunities, as well as assisting with professional development. It focuses on adjustments needed to succeed in college, study skills and test taking, crisis or stress management, and on understanding the significance of the land-grant system. This course is designed to acquaint students with current trends, pertinent issues, and modern practices associated with the various disciplines in agriculture and natural resources from a global perspective. **Required of all first year students in the Department of Agriculture, this course substitutes for the University-wide 100 level course: First Year Experience Seminar.**

AGNR 353 Natural Resources Conservation Credit 3
Students enrolled in this course are provided the principles of soil, water, sediment, and nutrient conservation and management. Application of the principles of land use, run-off and erosion control, and soil management practices including elements of the universal soil loss equation, are also discussed. Prerequisite: PLSC 184 and PLSC 185 or permission of instructor.

AGNR 483 Principles of Geographic Information Systems Credit 3
This course is designed to provide students with an overview of the applicability and use of Geographic Information Systems (GIS); students will become competent with ArcView[®], a GIS software package from Environmental Systems Research Institute (ESRI), Inc. Students will also learn the basics of data management, data accuracy, spatial analysis, and data presentation. Prerequisite: Sophomore standing. Two hours lecture and two hours lab per week.

AGRICULTURE¹

AGRI 301 Agriculture Seminar: Professional Development Credit 1
This course is an individualized preparation for entry into a professional career in agriculture. The course is to be taken during the spring semester of the junior year. Skills such as resume writing, interviewing for employment, and developing a professional image will be emphasized. The organization of information and the presentation of technical data through oral and written communication skills will be stressed. Prerequisite: ENGL 203 or permission of instructor.

AGRI 483 Recombinant DNA Technology Credit 3
This is a laboratory course to introduce the basic principles of gene cloning. It gives essential background on working with E. coli, utilizes different cloning systems, and employs methods for PCR applications, methods and procedures for DNA sequencing. Prerequisites: Senior standing and permission of instructor.

¹ Honors (H) courses: Students will be given more assignments, take home problems, term papers, and exams and quizzes than regular students.

AGRI 499 **Special Topics in Agriculture** **Credit 3**
Students conduct research with faculty on prearranged topics. Prerequisite: Permission of instructor.

AGRONOMY¹

AGRN 333 **Weed Science** **Credit 3**
Weed identification, and action of herbicides, physical, biological, chemical and cultural weed control are covered. Safe use, handling and management of pesticides, including preparation for Maryland Certification, will also be emphasized. Two hours lecture and two hours lab per week.

AGRN 413 **Global Agronomic Crops/Honors** **Credit 3**
This course is an in-depth study of major field (cereal, oil and fiber) crops that are grown in temperate, tropical, and sub-tropical environments. Three hours lecture per week.

AGRN 423 **Plant Nutrition and Soil Fertility/Honors** **Credit 3**
This course provides an advanced study of the interrelationships between soil type, mineralogy, pH, soil nutrients, and other nutritional aspects related to plant growth, development and production. The availability and supply of micro and macro nutrients in soil, as affected by the environment, and the use of organic and inorganic fertilizers on plant growth and nutrition will be a major focus. Prerequisites: PLSC 184, PLSC 185 and SOIL 203 or permission of instructor. This course is cross-listed with AGRN 653.

AGRN 463 **Plant Genetics and Breeding** **Credit 3**
This course deals with principles of plant genetics, cytological and genetic variation in crop plants, production and control of such variation in developing varieties and hybrids, crop improvement using biotechnology, methods of breeding self- and cross pollinated crops, and production and maintenance of high quality seeds. Prerequisite: PLSC 184 or permission of instructor. Three hours lecture per week.

AGRN 499 **Independent Study in Plant and Soil Science** **Credit 1-4**
This course is designed for students with an interest in pursuing independent research topics in the plant and soil sciences. Prerequisite: Permission of instructor.

APPLIED MICROBIOLOGY

AMIC 324 **Agricultural Microbiology** **Credit 4**
Instruction includes lectures and laboratories which apply general principles of microbial ecology, food microbiology, pathogenic microbiology and industrial microbiology as they directly relate to practical applications in the Agricultural Sciences. Prerequisites: BIOL 111, CHEM 111 or permission of instructor. Three hours lecture and three hours lab per week.

ANIMAL AND POULTRY TECHNOLOGY

ANPT 114 **Introduction to Animal Science/Honors** **Credit 4**
This course is an introduction to the interspecies survey of principles through scientific animal production including breeding and genetics, reproduction, nutrition, animal management, and the importance of animal products to consumers. Three hours lecture and three hour lab per week.

ANPT 202 **Practicum in Animal and Poultry Science** **Credit 2**
In this course, students may gain practical management experience by working at the UMES animal facilities through a non-paid contractual agreement. Students may spend time in the aquaculture, swine, poultry and/or ruminant facilities. Prerequisites: Second semester freshman standing and permission of instructor. Course may be repeated, but credit toward graduation will be limited to two credit hours. Two hours lab per week.

ANPT 213 **Introduction to Aquaculture** **Credit 3**
The course covers an overview of the commercial aquaculture industry including shell and fin fish culture. Basic concepts include water quality management, reproduction, hatchery management, nutrition, disease control, processing, and marketing. Two hours lecture and three hours lab per week.

¹ Honors (H) courses: Students will be given more assignments, take home problems, term papers, and exams and quizzes than regular students.

ANPT 214¹ Animal and Avian Physiology/Honors Credit 4
This course involves laboratory and lecture studies of the basic anatomy of mammals and domestic fowl and how this anatomy relates to the physiological functions of tissues, organs and systems. Prerequisite: ANPT 114 or permission of instructor. Three hours lecture and three hours lab per week.

ANPT 223 Introduction to Poultry Technology and Management Credit 3
The course provides an overview of the poultry industry and how it relates to the human food chain. The basic concepts of poultry breeding, housing, management and production, processing, and marketing will be introduced. Two hours lecture and three hours lab per week.

ANPT 304 Reproductive Physiology /Honors Credit 4
In this course, students study the fundamental concepts of reproduction, including, comparative physiology, reproductive technologies, and management of domestic animal reproductive performance. Prerequisites: ANPT 114 or permission of instructor. Three hours lecture and two hours lab per week.

ANPT 313 Introduction to Animal and Avian Nutrition/Honors Credit 3
The fundamental concepts of digestion and metabolism of nutrients by animal and avian species are covered. Nutritional deficiencies and their requirements for various physiological functions are also included. Prerequisites: ANPT 114, CHEM 111, CHEM 113 or permission of instructor. Three hours lecture per week.

ANPT 399 Internship in the Animal and Poultry Industry Credit 3
Offered as part of the student's educational training, this course provides practical work experience and familiarizes the student with the operation and management of a commercial animal or poultry business firm. Faculty will aid students in identifying firms; however, placement is not guaranteed. Prerequisite: Permission of instructor. Three hours lab per week.

ANPT 403 Advanced Aquaculture Credit 3
This course covers the fundamentals of commercial fish and other marine animal production, including basic principles of pond and tank production, management, nutrition and disease control. Two hours lecture and three hours lab per week. Course also offered as NRES 403.

ANPT 413 Advanced Poultry Production and Management Credit 3
The principles and current practices in hatching egg production, incubation and hatchery management and commercial broiler production are covered in this course. Topics include broiler breeder management, hatching egg incubation, broiler housing systems, ventilation, heating, lighting, feeding, and health care. Practical experience in poultry production practices will be gained by putting classroom instruction into practice through operating the 10,000 bird broiler house on the UMES farm. Prerequisites: ANPT 223 and ANPT 313, or permission of instructor. Two hours lecture and two hours lab per week.

ANPT 423 Wildlife Management Credit 3
In this course, students develop an understanding of the principles and practices associated with wildlife management. Emphasis is placed on research design, sampling techniques, and field research. Students practice field techniques, analyze results, and develop management recommendations as part of semester projects. Two hours lecture and three hours lab per week. Course also offered as BIOL 463.

ANPT 424 Animal and Avian Health and Diseases/Honors Credit 4
Students study parasitic, viral, bacterial and protozoan diseases of mammalian and avian species. Methods of disease prevention, control and eradication are also discussed. Prerequisites: ANPT 214/H or permission of instructor. Three hours lecture and three hours lab per week.

ANPT 433 Livestock Production Credit 3
Ruminant animal production including breeding and selection, reproduction, nutrition, management production systems, herd health, ruminant wildlife and related technologies will be discussed. Two hours lecture and two hours lab per week.

ANPT 443 Horse Production Credit 3
Principles and applied practices of horse production, with emphasis on management, nutrition, health care, genetics and physiology are emphasized in this course. Prerequisites: ANPT 114 or permission of instructor (offered in odd-numbered years). Two hours lecture and three hours lab per week.

¹ Honors (H) courses: Students will be given more assignments, take home problems, term papers, and exams and quizzes than regular students.

ANPT 463 Dairy Production Credit 3
Applied dairy science with emphasis on genetics, nutrition and feeding, lactation, physiology and management, and marketing systems for dairy products are topics covered in this course. Prerequisites: ANPT 114 or permission of instructor (offered even-numbered years). Two hours lecture and three hours lab per week.

ANPT 473 Swine Production Credit 3
Modern, applied aspects of swine production are covered, including breeding and selection, reproduction and artificial insemination, nutrition and feeding, environmental aspects of housing and management, production systems, herd health, and pork products and their value in the human diet. Prerequisites: ANPT 114 or permission of instructor. Two hours lecture and three hours lab per week.

ANPT 499 Special Topics in Animal and Poultry Science Credit 1-5
This course includes individualized research and study of a problem in the student's area of interest done in cooperation with an ANPT faculty member. Prerequisite: Permission of instructor.

ECONOMICS¹

ECON 201 Principles of Economics /Honors Credit 3
Students learn the principles of economic analysis, economic institutions, and issues of public policy. The emphasis is on aggregate economics, covering national income analysis, money and banking, business cycles, and economic stabilization, including land, labor and capital, and effects of government policies on the markets. Prerequisite: MATH 102 or higher.

ECON 202 Principles of Macroeconomics/Honors Credit 3
Students learn the principles of economics analysis and institutions and issues of public policy. Topics covered include production, market models, the allocation of resources, the distribution of income through the price system (micro analysis), and international economics. Prerequisite: MATH 102 or higher.

ECON 300 Intermediate Micro Economic Theory/Honors Credit 3
Students learn the general principles and analytical tools of price theory. Topics include an analysis of consumer behavior, business firms, and industry and factor markets. Prerequisites: ECON 201 and ECON 202.

ECON 301 Intermediate Macro Economic Theory Credit 3
This course includes analysis of the determination of national income, employment, and price levels from the viewpoints of classical, Keynesian, neo-classical and neo-Keynesian economists. Key topics include consumption, investment, inflation, and monetary and fiscal policies. Prerequisites: ECON 201 and ECON 202.

ECON 302 Money and Banking/Honors Credit 3
This course explores the role of money, credit and the banking system in the United States. The growth of the commercial bank is traced from the colonial times to the present. Topics included are demand deposit, bank investments, Federal Reserve System, and monetary and fiscal policies. Prerequisites: ECON 201 and ECON 202.

ECON 303 Labor Economics Credit 3
This course includes a study of the labor force in the United States with special reference to employment, wage structure, and historical and social background of trade unionism and labor legislation. Prerequisites: ECON 201 and ECON 202.

ECON 304 The Economics of Black America Credits 3
This course includes survey and analysis of economic conditions of Black people in the United States from 1906 to present. Topics covered include Black land ownership, income, education, wages, mobility, businesses, employment welfare, discrimination, the Civil Rights Act of 1964, the impact of Federal economic policy on Blacks, and the historical factors which shaped them. Prerequisites: ECON 201 and ECON 202.

¹ Honors (H) courses: Students will be given more assignments, take home problems, term papers, and exams and quizzes than regular students.

ECON 401 Interpretative Analysis of Economic Theories Credit 3
Students do an in-depth study of basic economic concepts and theories which will be applied to understanding current economic policies and issues. Topics in general include monetary policy, fiscal policy, the public debt, income distribution, black economic development, collective bargaining, various marketing structures, international trade, alternative economic systems, and the less developed countries. Prerequisites: ECON 201 and ECON 202.

ECON 402 Economics of Development Credit 3
This course involves a study of the economic factors involved in the development of an economy. Particular emphasis is placed upon the capital accumulation in economies at various stages of economic growth. The economic problems of the developing areas of the world are examined. Prerequisites: ECON 201 and ECON 202.

ECON 403 Economics of Public Finance Credit 3
The course involves a study of principles and practices of taxation and public expenditure. Topics include economic effects of public spending and debts, taxation, financing social security and other services, fiscal and monetary policies and their relation to inflation and social problems. Prerequisites: ECON 201 and ECON 202.

ECON 404 International Economics Credit 3
Students study international economic problems, policies and processes. Topics covered include foreign trade, the balance of payments, exchange rate and exchange controls, international economic organization, the relationship between domestic and international economic organization, and the relationship between domestic and international economic policies. Prerequisites: ECON 201 and ECON 202.

ECON 480 Directed Independent Study in Economics Credit 3
This course is designed to upgrade knowledge in a specialized area of study determined by deficiencies or projected area of growth and plans for further studies. It will be structured to meet the needs of the students taking the course. The enrolled student will be assigned to a faculty member with whom he will work out a specific plan of study. The course will be similar to tutorials in structure. The student will have the primary responsibility of completing the assignments. Credit hours may vary in accordance with the need and amount of work assigned. Prerequisite: Senior standing and permission of instructor.

ECON 490 Senior Seminar in Economics Credit 3
This course offers students the opportunity for individualized, in-depth study with presentation to and criticism by peers. Topics of current interest will be announced before registration. Prerequisite: Senior standing.

ENTOMOLOGY

ENTO 313 General and Applied Entomology Credit 3
This course consists of lectures and laboratory exercises that focus on biology, taxonomy, and management of insects. The fundamentals of integrated pest management will also be covered.

FOOD SCIENCE AND TECHNOLOGY

FDST 493 Food Chemistry Credit 3
This course explores the chemistry of food components including water, carbohydrates, lipids, proteins, vitamins, and minerals, as well as additives, including preservatives, colorants, flavors, antioxidants and sweeteners. Functionality and interaction of components and their importance to quality and wholesomeness of foods will be discussed. Prerequisites: CHEM 212 or permission of instructor.

HORTICULTURE

HORT 203 Introduction to Horticultural Science Credit 3
This course is designed to introduce the scientific principles and practices of horticulture as a scientific discipline. Plant relationships, structure, growth and development, as well as the artistic aspects will be discussed. The course is divided into three sections: 1) basic concepts and processes in plant science, 2) general managerial practices of horticultural crops, and 3) discussions of current topics in horticulture.

HORT 313 Floriculture and Ornamental Horticulture Credit 3
This course is an introduction to the concepts of ornamental plant production and floral design. It includes production, propagation, harvesting and marketing of ornamental plants. Previously listed as HORT 312. Two hours lecture and two hours lab per week.

HORT 333 Landscape Design Theory Credit 3
Students learn theory and principles of design, role of the environment in selecting plants and landscape materials, and basic graphic elements. Two hours lecture and two hours lab per week.

HORT 353 Turf Management and Maintenance Credit 3
This course shows students how to identify, select, establish and manage turf for commercial, recreational and residential use. Management factors such as renovation, drainage, irrigation, fertility, pest and disease control, as well as mowing and other maintenance procedures will be covered. Prerequisites: PLSC 184, PLSC 185 and SOIL 203 or permission of instructor. Two hours lecture and two hours lab per week.

HORT 383 Horticultural Therapy Credit 3
This course addresses the therapeutic role and application of horticulture to individuals; it includes therapy and rehabilitation of the physically, emotionally and mentally challenged individuals. Prerequisites: PLSC 184 and PLSC 185 or permission of instructor.

HORT 423 Horticultural Crops Credit 3
This course presents the scientific aspects of commercial fruit and vegetable production. Principles of economics and practices in the global marketing of vegetables, fruits and nuts are discussed in relation to the maintenance of a safe food supply. General aspects of regional vegetables and fruits are given special emphasis for the Delmarva Peninsula. Prerequisite: HORT 203 or permission of instructor. Two hours lecture and two hours lab per week.

HORT 463 Plant Tissue Culture Credit 3
This course explores the principles and methods for *in vitro* culture and propagation of important horticultural and agronomic crops. Prerequisites: PLSC 184 and PLSC 185 or permission of instructor. Two hours lecture and two hours lab per week.

NATURAL RESOURCES

NRES 403 Advanced Aquaculture Credit 3
This course covers the fundamentals of commercial fish and other marine animal production, including basic principles of pond and tank production, management, nutrition and disease control. Also listed as ANPT 403.

NRES 404 Conservation Biology Credit 3
The course is an introduction to the principles of conservation biology, with an emphasis on application of ecological principles, management tools and case history studies related to conservation issues. Prerequisite: BIOL 402 or equivalent. This course is cross-listed with BIOL 404.

NRES 473 Ornithology Credit 3
This course covers general biology, taxonomy, and natural history of birds, with an emphasis on North American families. This course is cross-listed with NRES 673. Prerequisites: BIOL 111, BIOL 113, BIOL 112, BIOL 114 or permission of instructor.

PLANT AND SOIL SCIENCE¹

PLSC 184 Introduction to Plant Science/Honors Credit 3
This course provides an introduction to fundamental biological principles as they relate to plant growth, reproduction and development, interaction of plants with their environment, and importance of plants to society, with specific reference to the role of plants in Maryland's economy. Impact of crop production practices on other natural resources will also be discussed.

PLSC 185 Introduction to Plant Science Lab Credit 1
This course deals with laboratory and field studies of plants, and related processes, including photosynthesis, nitrogen fixation, reproduction, classification, genetic variability, weed control and tillage practices. Co-requisite: PLSC 184.

PLSC 283 Agriculture and the Environment Credit 3
This course examines the impact of agricultural practices on humans and our natural resources. Emphasis is placed on providing and maintaining an adequate food supply while protecting the environment.

¹ Honors (H) courses: Students will be given more assignments, take home problems, term papers, and exams and quizzes than regular students.

PLSC 321 Integrated Pest Management**Credit 3**

This course is designed as an introduction to insect pests, disease causing organisms, weeds, and their management in crop plants using integrated practices. Topics will include classification, identification, biology, ecology, sampling methods, IPM development, management tactics, use of conventional pesticides, biological control, host plant resistance and legislative methods. It will also include biology and management of important insects, diseases and weeds in selected crops. The course meets for two lectures and for a two hour laboratory per week. Prerequisites: PLSC 184 and PLSC 185.

PLSC 474¹ Plant Pathology/Honors**Credit 4**

This course examines causes of diseases in agronomic and horticultural crops, to include symptom recognition, isolation and enumeration, and management of diseases in landscape and field crops. Lab exercises include preparation of a journal-type manuscript based on an individual research project. Prerequisites: PLSC 184 and PLSC 185 or permission of instructor. This course is cross-listed with PLSC 674. Three hours lecture and three hours lab per week.

PLSC 484 Internship in Agriculture and Natural Resources**Credit 3-6**

This course involves supervised work experience in an approved setting that is planned with a business, university, or government agency. A faculty advisor must pre-approve the internship opportunity. Prerequisite: Permission of instructor.

SOIL SCIENCE**SOIL 203 Introduction to Soil Science****Credit 3**

This course engages students in a study of soil forming factors, soil forming processes and minerals involved in soil development, weathering, soil physical and chemical properties, organic matter mineralization, and the impact of these factors on soil fertility, soil moisture holding ability, and pH. Prerequisites: CHEM 111 and CHEM 113 or permission of instructor. Three hours lecture per week.

SOIL 204 Introduction to Soil Science Laboratory**Credit 1**

This course will provide students with individual and group dynamic approaches to laboratory exercises that will be designed for students to acquire knowledge, comprehend, apply, analyze, synthesize, and evaluate aspect of soil profile development, soil forming factors, minerals, weathering, soil physical properties, chemical properties, organic matter mineralization, soil chemistry, and the impact of these factors on soil fertility, soil moisture content, and soil hydrogen ion concentration. Prerequisite: CHEM 111 and CHEM 113 or permission of instructor. Co-requisite: SOIL 203.

SOIL 443 Soil Chemistry**Credit 3**

This course provides students with knowledge of the chemical composition and formation of soils, knowledge of cation and anion exchange, soil acidity, soil alkalinity, soil salinity, soil conditions, and soil fixation of nutrients. Chemical methods of soil analysis are studied with emphasis on their relation to fertilizer requirements. Prerequisites: CHEM 112, CHEM 114 and SOIL 203.

¹ Honors (H) courses: Students will be given more assignments, take home problems, term papers, and exams and quizzes than regular students.

DIRECTORY OF FACULTY

- Acquah, Emmanuel** **Professor**
B.S., University of Maryland Eastern Shore, M.S. and Ph.D., The Ohio State University
- Allen, Arthur L.** **Associate Professor, 1890 Associate Research Director**
B.S., University of Arkansas at Pine Bluff; M.S., Oklahoma State University; Ph.D., University of Illinois-Urbana
- Clarke, Maurice F.** **Assistant Professor**
B.S., Tuskegee University; M.Sc., University of Edinburgh; DVM, Tuskegee University
- Cotton, Corrie P.** **Research Assistant Professor**
B.S., University of Maryland Eastern Shore; BLA, MLA, The Pennsylvania State University
- Dadson, Robert B.** **Professor**
B.Sc., University of London; M.Sc., Ph.D., McGill University
- Demissie, Ejigou** **Professor**
B.S., M.S., Ph.D., Oklahoma State University
- Escobar, Enrique N.** **Assistant Professor**
B.S., M.S., Universidad de El Salvador; Ph.D., University of Maryland, College Park
- Tao Gong** **Assistant Professor**
B.S., M.S., Harbin Institute of Technology, P.R. China; Ph.D., Middle Tennessee State University
- Green, Bessie** **Research Associate**
B.S., Salisbury State University; M.S., Ph.D., University of Maryland Eastern Shore
- Handwerker, Thomas** **Professor**
B.S., University of Tennessee; M.S., Ph.D., Cornell University
- Harter-Dennis, Jeannine** **Associate Professor**
B.S., M.S., Ph.D., University of Illinois
- Hashem, Fawzy** **Research Associate Professor**
B.S., University of Ain Shams; M.S., University of Cairo; Ph.D., University of Cairo; Ph.D., University of Maryland College Park
- Marsh, Lurline E.** **Professor and Chairperson**
B.S., University of the West Indies; M.S., Tuskegee University; Ph.D., University of Minnesota
- Mollett, Theodore A.** **Associate Professor**
B.S., Oregon State University; M.S., Ph.D., Purdue University
- Parveen, Salina** **Assistant Professor**
B.S., M.S., University of Dhaka; Ph.D., University of Florida
- Schwarz, Jurgen** **Associate Professor**
B.S., M.S., Hohenheim University; Ph.D., Cornell University
- Shorter, George** **Assistant Professor**
B.S., Maryland State College; M.S., Virginia State College; Ph.D., Iowa State University
- Tubene, Stephan L.** **Associate Professor**
B.S., Institut Facultaire des Sciences Agronomiques de Yangambi; M.S., Alcorn State University; Ph.D., Kansas State University

DEPARTMENT OF HUMAN ECOLOGY

<http://www.umes.edu/SANS>

Dr. Nina Lyon Bennett, Acting Chairperson

MISSION

The mission of the Department of Human Ecology is to prepare students for careers, graduate study and leadership roles in Fashion Merchandising, Child Development, Family and Consumer Sciences, and Food and Nutrition. The department challenges faculty and students to make contributions that will enhance the quality of life of individuals and families in diverse societies. Our focus is to empower individuals to cope with change, explore new technologies, and manage resources wisely.

The philosophical tenets and programmatic focus remain central to the mission of the 1890-land grant university. This mission is carried out through teaching, research and community service.

OBJECTIVES

The objectives of the Human Ecology Department are to:

1. Establish and promote high academic standards and performance.
2. Provide career development opportunities for students, faculty and staff.
3. Strengthen and expand research and community service programs.
4. Increase enrollment and graduation rates.

DEGREES OFFERED

Bachelor of Science – Human Ecology

CERTIFICATION

Family Financial Planning Certificate

DEPARTMENTAL REQUIREMENTS

Department of Human Ecology programs require that all students maintain a “C” in each course in their Program Core and Program Electives and a “C” average in General Education and Supportive Course Requirements. Individual programs may choose specific courses to fulfill General Education requirements. Students transferring into the department from another department or institution must have a 2.5 Cum GPA.

All students who enroll in degree programs will be required to complete 12 alternative credits before graduating. Alternative credits can be earned by completing internships, summer and winter session courses, on-line courses/undergraduate research, and courses completed while studying abroad. All students should consult their advisor when selecting these credits.

CHILD DEVELOPMENT PROGRAM

The program in Child Development provides a broad interdisciplinary background in the area of children and families. As the only four-year program in Maryland, it prepares students to work and/or teach others to work with children and their families. Emphases are given to development within various family structures and to strategies for facilitating normal development. Students learn basic and applied concepts of human development and acquire skills in working with young children and their families with different abilities, and backgrounds in a variety of settings. In addition to classroom instruction, the Child Development students spend part of several semesters working in the campus Child and Family Development Center and in off-campus social and human service agencies. Students choosing this option can broaden their career possibilities by completing courses in cognitive areas such as business, recreation, or nutrition that compliment the training in Child Development. Successful completion of the Child Development program also provides excellent preparation for graduate studies.

DEPARTMENTAL REQUIREMENTS The Child Development Program requires that all students maintain a “C” in each course in their Program Core and Program Electives and a “C” average in General Education and Supportive Course Requirements. Individual programs may choose specific courses to fulfill General Education requirements. Students transferring into the department from another department or institution must have a 2.5 Cum GPA.

Child Development students are required to complete 400 clock-hours of internship and practicum experience designed to provide on-the-job experience in the childcare/education field. Students must include a minimum of 12 credits of out-of-class experiences for credit. HUEC 400 and HUEC 450, five credits each, meet the out-of-class experience. Students should consult their advisor to select two (2) additional credits to meet the 12 credit hour requirement.

CAREER OPPORTUNITIES

Potential employment opportunities include private child care facilities, hospital and clinic settings, recreation programs, health and social service agencies, and businesses. Students choosing this option can broaden their career possibilities by completing courses in cognate areas such as business, recreation, or nutrition that complement the training in Child Development. In addition, successful completion of the Child Development program provides excellent preparation for graduate studies.

REQUIRED MAJOR COURSES

CHDE 220	CHDE 323	CHDE 427	HUEC 203
CHDE 222	CHDE 325	CHDE 430	HUEC 361
CHDE 224	CHDE 327	CHDE 440	HUEC 370
NUDT 214	CHDE 330		HUEC 399
	CHDE 332		HUEC 400 ¹
			HUEC 409
			HUEC 450 ¹
			HUEC 464

¹Child Development majors must complete HUEC 400 and HUEC 450 for five (5) credits each.

CURRICULUM GUIDE FOR CHILD DEVELOPMENT

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 101	3	CHDE 220	3
BIOL 103	1	ENGL 102	3
EXSC 111 ¹	3	ENGL 001	0
ENGL 101	3	MATH 102 or Higher	3
GEN ED CURR AREA I	3	PSYC 200	3
HUEC 100	1	HUEC 230	<u>3</u>
SOCI 101	<u>3</u>		15
	17		

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
HUEC 203	3	BUED 212	3
CHDE 222	3	Elective	3
CHDE 224	3	GEN ED CURR AREA I	3
ENGL 203	3	GEN ED CURR AREA III	3
NUDT 214	<u>3</u>	Elective	<u>3</u>
	15		12

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CHDE 323	3	CHDE 325	3
CHDE 327	3	CHDE 332	3
CHDE 330	3	CHDE 361	3
ENGL 305	3	HUEC 399	1
HUEC 370	<u>2</u>	HUEC 464	3
	14	Elective	<u>3</u>
			16

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CHDE 427	3	HUEC 400 ^{2, 3, 4}	5
CHDE 430	3	HUEC 409	1
CHDE 440	3	HUEC 450 ^{2, 3, 4}	<u>5</u>
Elective	6		11
HUEC 474	<u>2</u>		
	17		

Total Credit Hours: 120

¹EDHE 111 cannot be repeated for credit.

²Child Development majors cannot complete HUEC 400, HUEC 409, and HUEC 450 until all professional courses have been successfully completed.

³HUEC 400 and HUEC 450 meet the out-of-class experience. Students should consult their advisor to select two (2) additional credits to meet the 12 credit hour requirement.

⁴Child Development majors must complete HUEC 400 and HUEC 450 for five (5) credits each.

CHILD DEVELOPMENT

Articulated Program with Wor-Wic Community College

The University of Maryland Eastern Shore and Wor-Wic Community College entered into an articulation agreement to facilitate the transfer of Early Childhood Education students from Wor-Wic Community College to UMES for the purpose of entering the bachelor's degree program in Human Ecology - Child Development.

Students enrolled in Wor-Wic Community College Early Childhood Education Associate of Applied Science Program (AAS) can transfer to UMES for completion of the bachelor's degree in Human Ecology - Child Development, following completion of the AAS program. A maximum of 60 credits of successful community college study can be transferred to UMES.

DEPARTMENTAL REQUIREMENTS

The Child Development Program requires that all students maintain a "C" in each course in their Program Core and Program Electives and a "C" average in General Education and Supportive Course Requirements. Individual programs may choose specific courses to fulfill General Education requirements. Students transferring into the department from another department or institution must have a 2.5 Cum GPA.

Child Development majors are required to complete HUEC 400 and HUEC 450 for 5 credits each. Students transferring from Wor-Wic may earn credit for these courses through a departmental challenge examination at UMES per the UMES-WWCC Articulation Agreement. Students are encouraged to take CHDE 220, CHDE 222 and CHDE 224 prior to fall enrollment at UMES. Wor-Wic transfer students may earn credit for courses through a departmental challenge examination at UMES, per the UMES-WWCC Articulation Agreement.

CAREER OPPORTUNITIES

Potential employment opportunities include private child care facilities, hospital and clinic settings, recreation programs, health and social service agencies, and businesses. Students choosing this option can broaden their career possibilities by completing courses in cognate areas such as business, recreation, or nutrition that complement the training in Child Development. In addition, successful completion of the Child Development program provides excellent preparation for graduate studies.

REQUIRED MAJOR COURSES

CHDE 220 ¹	CHDE 323	CHDE 427	HUEC 203
CHDE 222 ¹	CHDE 325	CHDE 430	HUEC 361
CHDE 224 ¹	CHDE 327 ²	CHDE 440	HUEC 370
NUDT 214	CHDE 330		HUEC 400 ³
	CHDE 332 ²		HUEC 450 ³
			HUEC 464

¹Students are encouraged to complete course prior to the Fall enrollment at UMES.

²Wor-Wic transfer students may earn credit for these courses through a departmental challenge examination at UMES.

³Child Development majors must complete HUEC 400 and HUEC 450 for five (5) credits each.

**CURRICULUM GUIDE FOR CHILD DEVELOPMENT 2+2
Articulated Program with Wor-Wic Community College (WWCC)**

FRESHMAN YEAR (at WWCC)

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CMP 101	3	CDV 101	1
EDU 101	3	EDU 151	3
EDU 102	3	EDU 152	3
EDU 103	3	EDU 153	3
ENG 101	<u>3</u>	ENG 151	3
	15	PSY 101	<u>3</u>
			16

SOPHOMORE YEAR (at WWCC)

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIO 101	4	EDU 251	3
EDU 201	3	EDU 252	3
EDU 260	3	EDU 261	3
PSY 205	3	MTH 103	3
SPH 101	<u>3</u>	SCI ELE	<u>4</u>
	16		16

JUNIOR YEAR (at UMES)

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CHDE 323	3	CHDE 325	3
CHDE 327 ¹	3	CHDE 332 ¹	3
CHDE 330	3	HUEC 361	3
HUEC 203	3	HUEC 399	1
SOCI 101 ²	3	HUEC 464	3
EXSC 111 ^{2,3}	3	GEN ED CURR AREA I ²	<u>3</u>
ENGL 002	<u>0</u>		16
	18		

SENIOR YEAR (at UMES)

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CHDE 427 ¹	3	HUEC 400 ⁴	5
CHDE 430	3	HUEC 409	1
CHDE 440	3	HUEC 450 ⁴	5
ENGL 305	3	GEN ED CURR AREA I	<u>3</u>
HUEC 370	2		14
HUEC 474	<u>2</u>		
	16		

Total Credit Hours: 127

¹ Wor-Wic transfer students may earn credit for these courses through a departmental challenge examination at UMES.

² Students are encouraged to complete prior to fall enrollment at UMES.

³ EXSC 111 cannot be repeated for credit.

⁴ Child Development majors must complete HUEC 400 and HUEC 450 for five (5) credits.

CHILD DEVELOPMENT

Articulated Program with Chesapeake College

The University of Maryland Eastern Shore and Chesapeake College entered into an articulation agreement to facilitate the transfer of Early Childhood Education students from Chesapeake College to UMES for the purpose of entering the bachelor's degree program in Human Ecology - Child Development.

Students enrolled in Chesapeake College Early Childhood Education Associate of Applied Science Program (AAS) can transfer to UMES for completion of the bachelor's degree in Human Ecology - Child Development, following completion of the AAS program. A maximum of 60 credits of successful community college study can be transferred to UMES.

DEPARTMENTAL REQUIREMENTS

The Child Development Program requires that all students maintain a "C" in each course in their Program Core and Program Electives and a "C" average in General Education and Supportive Course Requirements. Individual programs may choose specific courses to fulfill General Education requirements. Students transferring into the department from another department or institution must have a 2.5 Cum GPA.

Child Development majors are required to complete HUEC 400 and HUEC for five (5) credits each. Students transferring from Chesapeake College may earn credit for these courses through a departmental challenge examination at UMES per the UMES-CC Articulation Agreement. Students are encouraged to take CHDE 220, CHDE 222 and CHDE 224 prior to fall enrollment at UMES. Chesapeake College transfer students may earn credit for courses through a departmental challenge examination at UMES per the UMES-CC Articulation Agreement.

CAREER OPPORTUNITIES

Potential employment opportunities include private child care facilities, hospital and clinic settings, recreation programs, health and social service agencies, and businesses. Students choosing this option can broaden their career possibilities by completing courses in cognate areas such as business, recreation, or nutrition that complement the training in Child Development. In addition, successful completion of the Child Development program provides excellent preparation for graduate studies.

REQUIRED MAJOR COURSES

CHDE 220 ¹	CHDE 323	CHDE 427	HUEC 203
CHDE 222 ¹	CHDE 325	CHDE 430	HUEC 361
CHDE 224 ¹	CHDE 327	CHDE 440	HUEC 370
NUDT 214	CHDE 330		HUEC 399
	CHDE 332		HUEC 400 ²
			HUEC 409
			HUEC 450 ²
			HUEC 464

¹Students are encouraged to complete course prior to Fall enrollment at UMES.

²Child Development majors complete HUEC 400 and HUEC 450 for 5 credits each.

**CURRICULUM GUIDE FOR CHILD DEVELOPMENT
Articulated Program with Chesapeake College (CC)**

FRESHMAN YEAR (at Chesapeake)			
<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
FSC 101	1	CPL 201	1
ECD 101	3	ECD 105	3
ECD 160	3	PSY 150	3
ENG 101	3	ECD 180 ¹	3
ECD 163	3	SOC 161	3
ART/HUM	<u>3</u>	ENG 102	<u>3</u>
	16		16

SOPHOMORE YEAR (at Chesapeake)			
<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
NAT/SCI	4	ECD 165	3
EDU 214/215	3	CPL 280	3
ECD 270	3	MAT 200	3
ECD 161	3	SCI ELE	4
COM 101	3	ECD 171	<u>3</u>
PED 103	<u>3</u>		16
	19		

JUNIOR YEAR (at UMES)			
<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CHDE 323	3	CHDE 325 ²	3
CHDE 327	3	CHDE 332 ²	3
CHDE 330	3	HUEC 230	3
ENGL 002	0	HUEC 361	3
HUEC 203	3	HUEC 399	1
GEN ED CURR AREA I	<u>3</u>	HUEC 464	<u>3</u>
	15		16

SENIOR YEAR (at UMES)			
<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CHDE 427	3	ENGL 305	3
CHDE 430 ²	3	HUEC 409	1
CHDE 440 ²	3	HUEC 450 ³	<u>5</u>
BUED 212	3		9
HUEC 370	2		
HUEC 474	<u>2</u>		
	16		

Total Credit Hours: 123

¹Chesapeake College recommends HTH 111 vs. HTH 180/ECD 180. If you plan to transfer to UMES we suggest you take ECD 180.

²Chesapeake College transfer students may earn credit for these courses through a departmental challenge examination per the UMES-CC Articulation Agreement.

³Child Development majors complete HUEC 400 and HUEC 450 for five (5) credits each.

DIETETICS

The Didactic Program in Dietetics at the University of Maryland Eastern Shore is housed within the Department of Human Ecology, which in turn, is located in the School of Agricultural and Natural Sciences.

The mission of the program is to provide educational opportunities for students to develop mastery of food and nutrition principles, and acquire skills for effective dietetics practice; enhance leadership qualities; and foster career development. Its philosophical tenets remain central to the mission of the 1890 Land-Grant Institution.

The Didactic Program in Dietetics is currently granted approval status by the Commission on Accreditation/Approval for Dietetics Education of the American Dietetic Association (ADA), 216 W. Jackson Blvd., Chicago, IL 60606-6995, 312/899-4876. Students who fulfill the prescribed course requirements will be awarded the Bachelor of Science Degree in Human Ecology Dietetics.

Successful completion of the Didactic Program is the first step toward dietetic credentialing. The remaining two steps consist of completing a supervised practice experience through an ADA-accredited Dietetic Internship, or an ADA-approved Pre-Professional Practice Program (AP4). Some of the agencies which provide internship experience for Dietetic interns are Peninsula Regional Medical Center, McCready Hospital, Dorchester General Hospital, Dorchester Health Department, and Renal Treatment Center. The final step in the credentialing process is to successfully write the Registration Examination for Dietitians.

DEPARTMENTAL REQUIREMENTS

Program admission requirements are the same as those for the university. Freshman applicants must have graduated from an accredited secondary school. For optimal admission consideration, an academic grade point average (GPA) of at least 2.5, and a Scholastic Aptitude Test (SAT) score of at least 850, or an American College Test (ACT) score of at least 18, is expected.

Students who have attended a regionally accredited institution of higher education and attempted 12 or more credits may be considered for admission as transfer students. Applicants must be in good academic and disciplinary standing at their previous institution and must have maintained a 2.5 GPA or higher in all previous college work. Those who have earned fewer than 28 credits must submit their high school transcript and SAT or ACT scores as well.

Individuals who hold a bachelor's degree in another discipline may elect to satisfy the ADA Foundation Knowledge and Skills for the Didactic Component of Entry-Level Dietitian Education in lieu of pursuing a second bachelor's degree. The applicant must have achieved a minimum GPA of 2.75 on a 4.0 scale prior to program entrance. Program graduates are eligible to receive a Verification Statement upon successful completion of the dietetics program with a GPA of 3.0.

Acceptance into the Dietetics program requires a GPA of 2.75. Program graduates are eligible to receive a Verification Statement upon successful completion of the dietetics program with a GPA of 3.0. These two GPA requirements will be effective beginning Fall 2009.

OUT-OF-CLASS EXPERIENCE

Students must include a minimum of 12 credits of out-of-class experiences for credit. Students should consult advisor to select six (6) additional credits to meet the 12 credit hours requirements.

CAREER OPPORTUNITIES

Program graduates are eligible to apply for Dietetic Internship programs and, upon successful completion of the internship, are qualified to write the dietetic registration examination. Registered dietitians are employed by industry, public health services, hospitals, food and health services, and other local, state, national and international agencies in research and educational programs.

REQUIRED MAJOR COURSES

NUDT 210	NUDT 300	NUDT 401	HUEC 370
NUDT 211	NUDT 305	NUDT 402	HUEC 399 ¹
NUDT 212	NUDT 310	NUDT 471	HUEC 400 ¹
	NUDT 391	NUDT 473	HUEC 409 ¹
	NUDT 392		HUEC 464

¹Dietetics students may substitute NUDT 475 for four (4) credits.

CURRICULUM GUIDE FOR DIETETICS

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 101	3	BIOL 111	3
MATH 109 or Higher	3	BIOL 113	1
CHEM 111	3	CHEM 112	3
CHEM 113	1	CHEM 114	1
SOCI 101	3	EXSC 111 ¹	3
HUEC 100	<u>1</u>	ENGL 001	0
	14	ENGL 102	3
		NUDT 210	<u>3</u>
			17

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 231	3	BIOL 232	3
BIOL 233	1	BIOL 234	1
CHEM 211	3	CHEM 212	3
CHEM 213	1	CHEM 214	1
ENGL 203	3	PSYC 200	3
NUDT 211	3	NUDT 212	3
GEN ED CURR AREA I	<u>3</u>	NUDT 305	<u>3</u>
	17		17

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CHEM 341	3	ENGL 305	3
CHEM 343	1	MATH 210	3
HUEC 370	2	NUDT 392	3
NUDT 300	1	NUDT 401	3
NUDT 310	3	GEN ED CURR AREA I	<u>3</u>
NUDT 391	<u>3</u>		15
	13		

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
AMIC 324 or		HUEC 464	3
BIOL 301 and	3	HUEC 487	3
BIOL 303	1	NUDT 473	3
HUEC 474	2	NUDT 475 ^{2, 3}	<u>4</u>
NUDT 402	3		13
NUDT 471 ³	3		
NUDT 472	<u>2</u>		
	14		

Total Credit Hours: 120

¹EXSC 111 cannot be repeated for credit.

²Dietitics students may substitute NUDT 475 for four (4) credits.

³NUDT 471 and NUDT 475 meet the Out-of-Class Experience.

FAMILY AND CONSUMER SCIENCES

The Family and Consumer Sciences program is designed to provide the student with an interdisciplinary perspective for professional work with families and consumers. Students develop a comprehensive background while focusing on one's specific interest(s). Graduates of the Family and Consumer Sciences program will be prepared to work in either the public or private sector environments that serve families and consumers. Students may select a minor to strengthen their general education, core and required coursework. Depending on the students' interest, the minor may be chosen from one of the following areas: Child Development, Dietetics, Fashion Merchandising, Nutrition or Gerontology. Early advisement is highly recommended.

DEPARTMENTAL REQUIREMENTS The Family and Consumer Sciences Program require that all students maintain a "C" in each course in their Program Core and Program Electives and a "C" average in General Education and Supportive Course Requirements. Individual programs may choose specific courses to fulfill General Education requirements. Students transferring into the department from another department or institution must have a 2.5 Cum GPA. All students are required to complete a 200 clock-hour internship.

CAREER OPPORTUNITIES

Graduates of the Family and Consumer Sciences program will be prepared to work in either the public or private sector that serves families and consumers. Students may select a minor or choose free electives to strengthen their general education core and required course work.

REQUIRED MAJOR COURSES

CHDE 222	FMCT 201 ¹ or	HUEC 101	NUDT 210
PSYC 303	FMCT 381 ¹	HUEC 203	NUDT 211
SOCI 361 ²		HUEC 243	NUDT 212
		HUEC 310	NUDT 305
		HUEC 361	
		HUEC 370	
		HUEC 399	
		HUEC 400	
		HUEC 460 ²	
		HUEC 464	
		HUEC 487	
		HUEC 490	

¹Student may select either FMCT 201 or FMCT 381.

²Student may select either SOCI 361 or HUEC 460.

CURRICULUM GUIDE FOR FAMILY AND CONSUMER SCIENCES

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 101	3	EXSC 111 ¹	3
SOCI 101	3	ENGL 102	3
HUEC 100	1	ENGL 001	0
HUEC 101	3	GEN ED CURR AREA I	3
GEN ED CURR AREA III	<u>4</u>	GEN ED CURR AREA III	3
	14	MATH 109 or Higher	<u>3</u>
			15

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BUED 212	3	CHDE 222	3
ECON 202	3	HUEC 243	3
ENGL 203	3	HUEC 203	3
PSYC 200	3	HUEC 230	3
GEN ED CURR AREA I	<u>3</u>	NUDT 210	<u>3</u>
	15		15

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
HUEC 310	3	FMCT 201 or	
HUEC 370	2	FMCT 381	3
NUDT 211	3	HUEC 399	1
PSYC 303	3	NUDT 212	3
Elective/Minor Course ²	<u>3</u>	NUDT 305	3
	14	Elective/Minor Course ²	<u>6</u>
			16

SUMMER

HUEC 400 ³	3
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SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
HUEC 361	3	HUEC 460 or	
HUEC 409	1	SOCI 361	3
ENGL 305	3	HUEC 464	3
Electives/Minor Courses ²	<u>6</u>	HUEC 487	3
	13	HUEC 490	3
		Elective/Minor Courses ²	<u>3</u>
			15

Total Credit Hours: 120

¹EXSC 111 cannot be repeated for credit.

²Students who select a Minor, must complete a minimum of 18 credit hours.

³HUEC 400 meets the Out-of-Class Experience. Please consult your advisor to select nine (9) additional credits to meet the 12 credit hours requirement.

FAMILY AND CONSUMER SCIENCES EDUCATION PROGRAM

The Family and Consumer Sciences Education Program (FCS) provides educational opportunities designed to fulfill the needs of society in general and the State of Maryland in particular for FCS teachers. The program (1) offers a hands-on experience, performance-based program that will prepare prospective FCS teachers with the knowledge and skills needed to address some of life's most difficult tasks; and (2) enhances the quality of life for individuals and families in regard to resource management; living environments; individual, child and family development; nutrition and food; and textiles at the secondary level. The knowledge, skills, and processes acquired through Family and Consumer Sciences Education are applicable to the management of personal and family lives as well as work responsibilities.

DEPARTMENTAL REQUIREMENTS

The Family and Consumer Science Education Program require that all students maintain a "C" in each course in their Program Core and Program Electives and a "C" average in General Education and Supportive Course Requirements. Individual programs may choose specific courses to fulfill General Education requirements. Students transferring into the department from another department or institution must have a 2.5 Cum GPA.

REQUIRED MAJOR COURSES

CHDE 222	FMCT 201 ¹	HUEC 243	NUDT 210
CHDE 323	FMCT 361	HUEC 310	NUDT 211
	FMCT 381 ¹	HUEC 361	
		HUEC 370	
		HUEC 399	
		HUEC 400	
		HUEC 409	
		HUEC 464	
		HUEC 474	
		HUEC 490	

EDUCATION REQUIRED EDUCATION COURSES

EDCI 200	EDSP 428	PSYC 305 ²	HUEC 203 ²
EDCI 201 ³		PSYC 307	
EDCI 311			
EDCI 400			
EDCI 406			
EDCI 409			
EDCI 410			
EDCI 427			
EDCI 480 ⁴			
EDCI 490 ⁴			

¹Students may select either FMCT 201 or FMCT 381.

²Students may select either HUEC 203 or PSYC 305.

³Course does not count toward graduation.

⁴FCS Education majors must complete EDCI 480 and 490 as part of their Professional Education courses.

CURRICULUM GUIDE FOR FAMILY AND CONSUMER SCIENCES EDUCATION

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 101	3	CHEM 101	3
BIOL 103	1	EXSC 111 ¹	3
ENGL 101	3	ENGL 102	3
HUEC 100	1	ENGL 001	0
PSYC 200	3	HUEC 230	3
SOCI 101	<u>3</u>	MATH 102 or Higher	<u>3</u>
	14		15

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BUED 212	3	CHDE 222	3
EDCI 200	3	ENGL 305	3
EDCI 201 ²	1	FMCT 201 or	
ENGL 203	3	FMCT 381	3
HUEC 203	3	HUEC 243	3
NUDT 211	<u>3</u>	GEN ED CURR AREA I	3
	16	NUDT 210	<u>3</u>
			18

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CHDE 323	3	EDCI 406	3
GEN ED CURR AREA I	3	EDCI 409	3
FMCT 361	3	HUEC 464	3
HUEC 370	2	HUEC 361	3
HUEC 310	3	HUEC 490	<u>3</u>
HUEC 474	<u>2</u>		15
	16		

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
EDCI 311	3	EDCI 400	3
EDCI 410	3	EDCI 480 ^{3,4}	6
EDCI 427	3	EDCI 490 ^{3,4}	<u>6</u>
EDSP 428	3		15
PSYC 307	<u>3</u>		
	15		

Total Credit Hours: 124

¹EXSC 111 cannot be repeated for credit.

²Course does not count towards graduation.

³FCS Education majors must complete EDCI 480 and 490 as part of their Professional Education courses in lieu of HUEC 399, 400 and 409.

⁴EDCI 480 and EDCI 490, six (6) credits each, meet the Out-of-Class Experience criteria.

FASHION MERCHANDISING PROGRAM

The Fashion Merchandising Program is designed to prepare students for entry-level management positions in the broad field of fashion merchandising, with emphasis on the retail process of products and services. It includes a minor in business administration, as well as an internship in Fashion Merchandising or a related area.

In addition, the department participates in the Fashion Institute of Technology (FIT) Visiting Student Program (located in New York City). Fashion Merchandising majors who meet eligibility requirements may opt to spend one year (junior year) at FIT for an additional degree (A.A.S.) in Advertising and Marketing Communications. Students return to the University of Maryland Eastern Shore (UMES) to complete the four-year program and receive both degrees at graduation. To compliment their program, students may choose to complete electives that focus on advertising, journalism, communication, or visual presentation. With appropriate courses taken as electives, students can pursue careers in fashion reporting, advertising, or graphic design.

DEPARTMENTAL REQUIREMENTS

The Fashion Merchandising Program requires that all students maintain a “C” in each course in their Program Core and Program Electives and a “C” average in General Education and Supportive Course Requirements. Individual programs may choose specific courses to fulfill General Education requirements. Students transferring into the department from another department or institution must have a 2.5 Cum GPA. Students are required to complete an internship designed to provide on-the-job experience in the fashion/textile industry. Some of the businesses which provide internship experience for students are: Bloomingdale’s, Macy’s, J. C. Penney, Liz Claiborne, Black Entertainment Television (BET), Foot Locker, Sears, Nordstrom, and The Gap.

STUDY TOURS

The Fashion Merchandising Program provides students with an opportunity to participate in a minimum of one major study tour each year. Students in the department tour the fashion capital of New York City. During this tour, students have an opportunity to visit and tour the facilities of well-known fashion designers such as Liz Claiborne and Donna Karan, along with several manufacturing facilities of design houses, furriers, computerized facilities of Butterick-Vogue and Simplicity pattern companies, and fashion museums are among the places visited.

Students in the textile courses visit textile mills in the Spring semester. Included in this tour is a look into production and development of various textile materials from fiber to garment. Among the companies visited are J.P. Stevens, Cannon Mills, Burlington, Americal Corporation, DuPont, and Allied Co.

CAREER OPPORTUNITIES

Fashion Merchandising program is designed to prepare students for entry level management positions in the broad field of fashion merchandising, with emphasis on the retail products and services. It includes a minor in business administration, as well as an internship in Fashion Merchandising or related areas. To complement their program, students may opt to complete electives that focus on advertising, journalism, communication or visual presentation. With the appropriate courses completed as electives, students can also pursue careers in fashion reporting, advertising and graphic design.

REQUIRED MAJOR COURSES

FMCT 141	FMCT 300	FMCT 441	HUEC 101
	FMCT 341		HUEC 310
	FMCT 342		HUEC 370
	FMCT 361		HUEC 399
	FMCT 381		HUEC 400
	FMCT 382		HUEC 409
			HUEC 464
			HUEC 487
			HUEC 490

CURRICULUM GUIDE FOR FASHION MERCHANDISING

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 101	3	EXSC 111 ¹	3
FMCT 141	3	ENGL 102	3
HUEC 101	3	ENGL 001	0
HUEC 100	1	GEN ED CURR AREA I	3
SOCI 101	<u>3</u>	GEN ED CURR AREA III	4
	13	MATH 109	<u>3</u>
			16

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BUED 212	3	ECON 202	3
ENGL 203	3	FMCT 300	3
PSYC 200	3	ENGL 305	3
ACCT 201	3	Elective	3
GEN ED CURR AREA III	<u>3</u>	GEN ED CURR AREA I	<u>3</u>
	15		15

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
FMCT 341	3	FINA 340	3
FMCT 361	3	FMCT 342	3
FMCT 381	3	FMCT 382	3
HUEC 310	3	HUEC 370	2
MKTG 308	<u>3</u>	HUEC 399	1
	15	BUAD Elective ²	<u>3</u>
			15

SUMMER

HUEC 400	3
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SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BUAD 302	3	BUAD 304	3
BUAD 412	3	HUEC 464	3
FMCT 441	3	HUEC 487	3
HUEC 409	1	HUEC 490	3
BUAD Elective ²	<u>3</u>	Elective	<u>3</u>
	13		15

Total Credit Hours: 120

¹EXSC 111 cannot be repeated for credit.

²Student must select a 300 or 400 Level BUAD course.

FASHION MERCHANDISING HONORS

The Fashion Merchandising Honors Program is designed to prepare students for entry-level management positions in the broad field of fashion merchandising, with emphasis on the retail process of products and services. It includes a minor in business administration, as well as an internship in Fashion Merchandising or a related area. To complement the program, students may opt to complete electives that focus on advertising, journalism, communication, or visual presentation. With appropriate courses completed as electives, students can pursue careers in fashion reporting, advertising or graphic design.

In addition, the department participates in the Fashion Institute of Technology (FIT) Visiting Student Program (located in New York City). Fashion Merchandising majors who meet eligibility requirements may opt to spend one year (junior year) at FIT for an additional degree (A.A.S.) in Advertising and Marketing Communications. Students return to the University of Maryland Eastern Shore (UMES) to complete the four-year program and receive both degrees at graduation. To compliment their program, students may choose to complete electives that focus on advertising, journalism, communication, or visual presentation. With appropriate courses taken as electives, students can pursue careers in fashion reporting, advertising, or graphic design.

DEPARTMENTAL REQUIREMENTS

The Fashion Merchandising Honors Program requires that all students maintain a “C” in each course in their Program Core and Program Electives and a “C” average in General Education and Supportive Course Requirements. Individual programs may choose specific courses to fulfill General Education requirements. Students transferring into the department from another department or institution must have a 2.5 Cum GPA. Students are required to complete an internship designed to provide on-the-job experience in the fashion/textile industry. Some of the businesses which provide internship experience for students are: Bloomingdale’s, Macy’s, J. C. Penney, Liz Claiborne, Black Entertainment Television (BET), Foot Locker, Sears, Nordstrom, and The Gap. Students majoring in the Fashion Merchandising Hours program are required to register for designated Honors courses. Students must include a minimum of 12 credits of Out-of-Class Experience. Students should consult their advisor when selecting the Out-of-Class Experience courses.

STUDY TOURS

The Fashion Merchandising Honors Program provides students with an opportunity to participate in a minimum of one major study tour each year. Students in the department tour the fashion capital of New York City. During this tour, students have an opportunity to visit and tour the facilities of well-known fashion designers such as Liz Claiborne and Donna Karan, along with several manufacturing facilities of design houses, furriers, computerized facilities of Butterick-Vogue and Simplicity pattern companies, and fashion museums are among the places visited.

Students in the textile courses visit textile mills in the Spring semester. Included in this tour is a look into production and development of various textile materials from fiber to garment. Among the companies visited are J.P. Stevens, Cannon Mills, Burlington, Americal Corporation, DuPont, and Allied Co.

REQUIRED MAJOR COURSES

FMCT 141	FMCT 300	FMCT 441	HUEC 101
	FMCT 341H		HUEC 310H
	FMCT 342H		HUEC 370
	FMCT 361		HUEC 399
	FMCT 381		HUEC 400 ¹
	FMCT 382H		HUEC 409
			HUEC 464
			HUEC 487H
			HUEC 490H

¹HUEC 400, three (3) credits, meets the Out-of-Class Experience. Students should consult their advisor to select nine (9) additional credits to meet the 12 credit requirement.

CURRICULUM GUIDE FOR FASHION MERCHANDISING HONORS

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 101H	3	EXSC 111 ¹	3
FMCT 141	3	ENGL 102H	3
HUEC 100	1	ENGL 001	0
HUEC 101	3	GEN ED CURR AREA I	3
SOCI 101	<u>3</u>	GEN ED CURR AREA II	4
	13	MATH 109	<u>3</u>
			16

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BUED 212	3	FMCT 300	3
ENGL 203	3	ECON 202H	3
GEN ED CURR AREA III	3	ENGL 305	3
ACCT 201	3	MATH 210	3
PSYC 200	<u>3</u>	MUSI 101H	<u>3</u>
	15		15

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
FMCT 341H	3	FMCT 342H	3
FMCT 361	3	FMCT 382H	3
FMCT 381	3	HUEC 399	1
HUEC 370	2	FINA 340H	3
MKTG 308	<u>3</u>	BUAD Elective ²	3
	14	Elective	<u>3</u>
			16

SUMMER

HUEC 400 ³	3
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SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BUAD 302H	3	BUAD 304	3
BUAD 412	3	HUEC 464	3
FMCT 441	3	HUEC 487H	3
HUEC 310H	3	HUEC 490H	<u>3</u>
HUEC 409	1		12
BUAD Elective ²	<u>3</u>		
	16		

Total Credit Hours: 120

¹EXSC 111 cannot be repeated for credit.

²Student must select a BUAD 300 or 400 Level course.

³ HUEC 400 meets the Out-of-Class Experience requirement for three credits.

FASHION MERCHANDISING FIT ADVERTISING MARKETING COMMUNICATIONS

The Fashion Merchandising FIT Advertising & Marketing Communications program is a dual degree program completed in conjunction with the Fashion Institute of Technology in New York City. Fashion Merchandising majors who meet eligibility requirements may opt to spend one year (junior year) at FIT for an additional degree (A.A.S.) in Advertising and Marketing Communications. Students return to UMES to complete the four-year program and receive both degrees at graduation. This program prepares students for entry level management positions in the broad field of fashion merchandising, advertising, and marketing communications, with a minor in business administration.

DEPARTMENTAL REQUIREMENTS

To be eligible to participate in the **Fashion Institute of Technology (FIT) Visiting Student Program**, you must meet the following criteria:

- Must be a full-time student at UMES in the Department of Human Ecology prior to their participation in the Visiting Student Program.
- Must be in good academic standing with a minimum cumulative GPA of a 2.9 and a major GPA of 3.0 on a 4.0 point scale.
- Must complete all forms and meet deadlines listed below in order to be considered for admissions. (See faculty coordinator for related forms).
- **Must complete the last 30 credit hours of course work for his or her degree at UMES.**

Upon acceptance to the University and entrance into the Department of Human Ecology, students should inform their academic advisor prior to registration of your interest in participating in the Visiting Student Program. Make an appointment with the faculty coordinator **prior to November 15th** of the Sophomore year for details and to receive all forms and applications pertaining to the program. Submit all application and financial aid materials by January 15th.

CAREER OPPORTUNITIES

Possible career opportunities include merchandiser, buying stylist, fashion consultant, public relations, marketing, journalism, and broadcasting.

REQUIRED MAJOR COURSES

FMCT 141	FMCT 300	FMCT 441	HUEC 101
	FMCT 341		HUEC 310
	FMCT 361		HUEC 370
	FMCT 381		HUEC 399 ¹
	FMCT 382		HUEC 400 ¹
			HUEC 409
			HUEC 464
			HUEC 487
			HUEC 490

FIT REQUIRED MAJOR COURSES

AC 111	AC 221	AD 101	FM 114 (FMCT 141)
AC 113	AC 231	CD 122	IC 291/491
AC 141	AC 271		
AC 171	AC 272		
	AC 362		

¹FIT students substitute IC 291/491 for HUEC 399 & 400 for four (4) credits.

**CURRICULUM GUIDE FOR FASHION MERCHANDISING
FIT ADVERTISING AND MARKETING COMMUNICATIONS**

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 101	3	MATH 109	3
HUEC 101	3	ENGL 102	3
SOCI 101	3	ENGL 001	0
HUEC 100	1	EXSC 111 ¹	3
BUED 212	3	GEN ED CURR AREA I	3
GEN ED CURR AREA I	<u>3</u>	GEN ED CURR AREA III	<u>4</u>
	16		16

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ACCT 201	3	BUAD Elective ²	3
ENGL 203	3	BUAD Elective ²	3
ECON 202	3	FMCT 300	3
PSYC 200	3	FMCT 361	3
HUEC 310	3	HUEC 370	2
GEN ED CURR AREA III	<u>3</u>	MKTG 308	<u>3</u>
	18		17

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
AC 111	3	AC 113	3
AC 141	3	AC 231 ³	3
AC 171	3	AC 271	3
AC 221 ⁴	3	AC 272	3
CD 122	2	AC 362 ⁵	3
FM 114 ⁶ (FMCT 141)	<u>3</u>	IC 291/141 ⁷	<u>4</u>
	17		19

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BUAD 302	3	BUAD 304	3
HUEC 409	1	BUAD 412	3
FINA 340	3	FMCT 382	3
FMCT 341	3	HUEC 464	3
FMCT 381	3	HUEC 487	3
FMCT 441	<u>3</u>	HUEC 490	<u>3</u>
	16		18

Total Credit Hours: 137

¹EXSC 111 cannot be repeated for credit.

²Student must select a 300 or 400 Level BUAD course.

³AC 231 is equivalent to ENGL 305.

⁴AC 221 is formerly known as AC 121.

⁵AC 362 is formerly known as AC 261

⁶FM 114 is equivalent to FMCT 141.

⁷Students may substitute IC 291/491 for HUEC 399 and 400 for 4 credits.

NUTRITION PROGRAM

The program in Nutrition provides a strong foundation in basic sciences, including chemistry, biochemistry, physiology and microbiology. Nutrition requires an in-depth knowledge of the physiological and biochemical aspects of metabolism, the nutrient composition of foods and an appreciation of the role of social and economic factors as determinants of food selection.

The program allows students to select certain courses in accordance with their interests. Teaching and research efforts are focused on the basic sciences of nutrition and foods and the application of knowledge in these disciplines to the maintenance of health and well being of human beings throughout the lifespan. It also meets the needs of students who want to continue with their graduate work; and it provides students with a strong foundation for graduate studies in human nutrition and related fields, such as public health. The School of Agricultural and Natural Sciences also offers a Master of Science degree in Food and Agricultural Sciences.

DEPARTMENTAL REQUIREMENTSThe Nutrition Program require that all students maintain a “C” in each course in their Program Core and Program Electives and a “C” average in General Education and Supportive Course Requirements. Individual programs may choose specific courses to fulfill General Education requirements. Students transferring into the department from another department or institution must have a 2.5 Cum GPA. All students are required to complete a 200 clock-hour internship.

Nutrition students are not required to complete an internship. However, each student is required to complete an extensive senior research project. The topic of the senior project is based on the student’s area of interest. Recent topics of interest include food safety, nutrition and aging, nutrition and sports, and directed experimental research.

Students must include a minimum of 12 credits of Out-of-Class Experience. Students should consult their advisor when selecting the Out-of-Class Experience courses.

CAREER OPPORTUNITIES

Potential employment opportunities include research positions in laboratories, hospitals and industry. This program meets the needs of students who want to continue with their graduate work; it provides students a strong foundation for graduate studies in human nutrition and related fields, such as public health.

REQUIRED MAJOR COURSES

NUDT 210	NUDT 305	NUDT 473	HUEC 370
NUDT 211	NUDT310	NUDT Elective	HUEC 399
NUDT 212	NUDT 391		HUEC 400 ¹
	NUDT 392		HUEC 409
			HUEC 464

¹Students may substitute NUDT 484 for HUEC 400 for five (5) credits.

CURRICULUM GUIDE FOR NUTRITION

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CHEM 111	3	BIOL 111	3
CHEM 113	1	BIOL 113	1
ENGL 101	3	CHEM 112	3
HUEC 100	1	CHEM 114	1
MATH 109	3	EXSC 111 ¹	3
SOCI 101	<u>3</u>	ENGL 102	3
	14	ENGL 001	0
		GEN ED CURR AREA I	<u>3</u>
			17

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 231	3	BIOL 232	3
BIOL 233	1	BIOL 234	1
CHEM 211	3	CHEM 212	3
CHEM 213	1	CHEM 214	1
ENGL 203	3	NUDT 210	3
NUDT 211	3	NUDT 212	3
GEN ED CURR AREA I	<u>3</u>	NUDT 305	<u>3</u>
	18		17

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CHEM 341	3	CHEM 342	3
CHEM 343	1	CHEM 344	1
HUEC 370	2	ENGL 305	3
NUDT 310	3	MATH 210	3
NUDT 391	3	NUDT 392	<u>3</u>
PSYC 200	<u>3</u>		13
	15		

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
AMIC 324 or	4	NUDT 473	3
BIOL 301 and	3	NUDT 484 ^{2,3}	5
BIOL 303	1	Elective	3
Elective	4	HUEC 464	<u>3</u>
HUEC 474	2		14
NUDT Elective	<u>3</u>		
	13		

Total Credit Hours: 120

¹EXSC 111 cannot be repeated for credit.

²Students may substitute NUDT 484 for HUEC 399, 400 & 409 for five (5) credits.

³NUDT 484 (5 credits) and NUDT 499 (1-3 credits) meet the Out-of-Class Experience. Students should consult their advisor to select appropriate courses to meet the 12 credit hour requirement.

MINOR PROGRAMS

The Department offers minor programs in Clothing and Textiles, Fashion Merchandising, Gerontology, Nutrition, and Family Financial Planning. The minor program in Nutrition has two Options: Nutritional Science and Food and Nutrition. A minimum of 18 credits is required for each area. Fashion Merchandising and Family & Consumer Science majors should consult advisor prior to selecting a minor. Clothing and Textiles, Gerontology, and Nutrition Option 2 are not available to FCS majors because of course duplication. The courses are as follows.

CLOTHING AND TEXTILES

FMCT 300	FMCT 361	FMCT 381
		FMCT 382

Select Two from:

FMCT 321	FMCT 422	HUEC 490
	FMCT 460	

FASHION MERCHANDISING

FMCT 141	FMCT 341	FMCT 441
	FMCT 342	

Select two from:

FMCT 361	FMCT 381	HUEC 487
	FMCT 390	HUEC 490

GERONTOLOGY

HUEC 220	HUEC 460	SOCI 361
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Select three from:

HUEC 203 ¹	NUDT 305	REHA 201
HUEC 450		REHA 302

NUTRITION OPTION 1: NUTRITIONAL SCIENCE

NUDT 210 ²	NUDT 391	NUDT 401
	NUDT 392	NUDT 402
		NUDT 473

NUTRITION Option 2: Food and Nutrition

NUDT 210	NUDT 305	NUDT 473
NUDT 211	NUDT 310	
NUDT 212		

FAMILY FINANCIAL PLANNING

HUEC 301Online	HUEC 403Online	HUEC 408 Online
HUEC 305 Online	HUEC 404Online	
HUEC 315 Online		

All students who enroll in degree programs will be required to complete 12 alternative credits before graduating. Alternative credits can be earned by completing internships, summer and winter session courses, on-line courses/undergraduate research, and courses completed while studying abroad.

¹ENGL 203 cannot be used to satisfy the General Education Requirement.

²FCS students may substitute NUDT 214.

COURSE DESCRIPTIONS IN CHILD DEVELOPMENT

- CHDE 220 Foundations of Early Childhood Credit 3**
This course provides a conceptual framework for examining roles and services in early childhood education, and includes historical, social, and philosophical influences while emphasizing current trends, issues, and practices. Attention is given to family and professional partnerships. The course introduces basic techniques for observing children. A field experience is required. Prerequisite: PSYC 200.
- CHDE 222 Infant/Child Development and Learning Credit 3**
This course is the study of how children develop and learn from conception to middle childhood. Theory and research relating to the physical, social-personal, and cognitive development of children and the role of family are emphasized. Field experience required. Prerequisite: PSYC 200.
- CHDE 224 Emerging Language & Literacy Credit 3**
This course examines the theories, processes, and acquisition of language arts, and addresses the cognitive, linguistic, social and physiological factors involved in oral and written language development. Prerequisite: CHDE 222.
- CHDE 323 Creative Activities for Young Children Credit 3**
This course is designed to provide many opportunities to gain techniques and resources for art, music, play, and creative dramatics. The students will identify resources and age appropriate activities to develop skills for organizing and presenting creative activities to young children. This course has two-hour lectures and one two-hour laboratory. Prerequisites: CHDE 220, CHDE 222. OPEN TO MAJORS ONLY.
- CHDE 325 Special Needs in Early Childhood Credit 3**
This course provides a framework for using principles of developmentally appropriate practice to design effective learning programs for young children with special needs. The focus includes children from birth to age 8 and their families who are in a variety of early childhood settings. **Emphasis will be placed on inclusion.** Prerequisites: CHDE 220, CHDE 222. OPEN TO MAJORS ONLY.
- CHDE 327 Curriculum and Instruction for Infants and Toddlers Credit 3**
This course provides application of theoretical and empirical research for field observations and curriculum projects. Emphasis is on integration of curricula responsive to individual needs in multidisciplinary and inclusive settings, along with the study of parent-child relations and early socialization with significant others and peers in program environments through activities which foster all areas of development. Prerequisites: CHDE 220, CHDE 222. OPEN TO MAJORS ONLY.
- CHDE 330 Observing and Interpreting Behavior of Young Children/Online Credit 3**
Approaches will be provided for observing, recording and interpreting the behaviors of children who are developing normally and those with special needs in a variety of early childhood education settings. A child observational study is required. This class has two hours lecture and one two-hour laboratory. Prerequisites: CHDE 220, CHDE 222. OPEN TO MAJORS ONLY.
- CHDE 332 Curriculum and Instruction for Preschool Children Credit 3**
This course examines curricula development and implementation of instructional strategies for preschool children in a variety of settings, including nursery schools, childcare and home-care centers, Headstart, hospitals, and community programs. A field experience is required. Prerequisite: CHDE 327. OPEN TO MAJORS ONLY.
- CHDE 427 Partnerships/Online Credit 3**
The aim of this course is to examine the role of the teacher and parent in the school setting with the goals of maximizing the child's education and developing insights into students' growth. Development of strategies for parent-teacher collaboration that support growth of the child's learning potential in home and school environments are emphasized. Prerequisites: CHDE 330, CHDE 332. Senior Standing. OPEN TO MAJORS ONLY.
- CHDE 430 Supervision and Administration of Early Childhood Programs Credit 3**
This course examines the role and function of an early childhood program administrator. Instructional focus includes planning, budgeting, financing, staffing and the facilitation of parent involvement within childhood programs. Students assess educational and professional information needs in terms of the system services available. Materials and experiences in this course are appropriate for the early childhood education student as well as the practicing director. Prerequisites: CHDE 330, CHDE 332, Senior Standing, or Permission of Instructor. OPEN TO MAJORS ONLY.

CHDE 440 School Age Programming Credit 3
This course will have students examining appropriate principles, materials and methods used with school age children. Emphasis is placed on growth and development of children 5 to 12 years of age. Development and implementation of age appropriate activities is considered as well as classroom management, environmental planning, utilization of community resources, and communication with parents. Prerequisites: CHDE 222. OPEN TO MAJORS ONLY.

CHDE 499 Independent Study/Research in Child Development Credit 1-3
This course provides an intensive study of a specialized topic in Child Development for advanced students. Permission to take an independent study must be obtained from the instructor. OPEN TO MAJORS ONLY.

FASHION MERCHANDISING CLOTHING AND TEXTILES

FMCT 141 Introduction to the Fashion Industry Credit 3
Introduction to the Fashion Industry provides an overview of the fashion industry, including the organization and operation of the numerous facets of the textile, apparel, home furnishings, and cosmetics industries, product development, the impact of technology, and career opportunities. Forty clock hours of work experience in a retail or related setting is also required. This course consists of three hours of lecture.

FMCT 201 Clothing and Textiles for Consumers¹ Credit 3
This course focuses on the basic knowledge of fabric characteristics and its application in the selection of products for apparel and home furnishings. The study of social, cultural, economic, and psychological factors that influence choices related to textile products are discussed.

FMCT 300 Historic Costumes/Online Credit 3
This course is the study of historic costumes and design reflecting the social, economic, and political environment of the past and fashion cycles relating historic costume/designs to current fashions. The course consists of three hours of combined lecture and laboratory.

FMCT 321 Fashion Illustration Credit 3
Fashion Illustration provides an introduction to drawing fashion figures, rendering various textiles, and illustrating apparel and accessories utilizing an array of media. The course consists of three hours of combined lecture and laboratory.

FMCT 341 Fashion Buying & Merchandising/Honors Credit 3
This course provides practical application of buying practices and procedures; merchandise planning, controlling, budgeting; merchandise assortment planning; and managing inventory. Prerequisites: FMCT 141, MATH 109 or higher. Co-requisite: MKTG 308. OPEN TO MAJORS AND MINORS ONLY.

FMCT 342 Advertising and Promotion/Honors Credit 3
Advertising & Promotion introduces students to both the theoretical and practical aspects of the principles and techniques used in promoting fashion goods and services to the consumer. Promotional strategies and creative concepts for promotional campaigns are developed by the students for local businesses. The course consists of three hours of combined lecture and laboratory. Prerequisites: FMCT 141. Junior Standing. OPEN TO MAJORS AND MINORS ONLY.

FMCT 361 Apparel Construction/Evaluation Credit 3
The main focus of this course is to provide an introduction to various sewing techniques, and to demonstrate the use of commercial patterns. A variety of garment components, including alterations, is identified and classified. An evaluation of ready-to-wear apparel will be fully conducted. One lecture and two laboratories. OPEN TO MAJORS AND MINORS ONLY.

FMCT 381 Textiles I Credit 3
This is a fundamental course that covers information on fibers, yarns, fabric construction, dyeing, printing and finishing of textiles. Two lectures and one laboratory. OPEN TO MAJORS AND MINORS ONLY.

¹Course cannot be completed by Fashion Merchandising majors.

- FMCT 382 Textiles II/Honors Credit 3**
 This course requires an understanding of basic textiles principles. Students enrolled in this course are required to measure the physical properties of fabrics, compile and analyze data, and relate the results to the performance of fabrics and garments. One lecture and two laboratories. Prerequisite: MATH 109, FMCT 381. OPEN TO MAJORS AND MINORS ONLY.
- FMCT 390 Product Development Credit 3**
 Product Development introduces both theoretical and practical aspects of the principles and techniques used in the creation, production, marketing, and distribution of fashion-related products that meet customer needs in the microeconomic and/or global marketplace. Actual prototypes will be created. The course consists of three hours of combined lecture and laboratory. Prerequisites: BUED 212, MKTG 308, or instructor's permission.
- FMCT 422 Apparel Design: Pattern Drafting and Draping Credit 3**
 Apparel Design: Pattern Drafting and draping introduces students to basic principles of flat pattern design and draping through the development of the master pattern and its use in the design and production of marketable apparel. The course consists of one hour of lecture and two hours of laboratory. Prerequisite: FMCT 361.
- FMCT 441 Visual Merchandising Credit 3**
 Visual Merchandising is the study of principles and practices of designing and evaluating the various aspects of visual displays. The course involves the creation of window and interior promotional displays and the development of a visual portfolio. The course consists of three hours of combined lecture and laboratory. Prerequisite: FMCT 342. OPEN TO MAJORS AND MINORS ONLY.
- FMCT 460 Clothing for Special Needs Credit 3**
 This course has main emphasis on clothing selection, basic fitting, and sewing techniques to meet needs related to age, figure type, and physical disability. Two lectures and one laboratory. Prerequisite: FMCT 361.
- FMCT 463 Tailoring/Alterations Credit 3**
 This course is designed to teach the fundamentals of tailoring and alterations. Tailoring techniques include short-cut tailoring methods, as well as samples of custom tailoring techniques. Students learn to apply alteration techniques for various fitting problems. One lecture and two laboratories. OPEN TO MAJORS ONLY. Prerequisite: FMCT 361.
- FMCT 497A Fashion Merchandising Study Tour Credit 1-3**
 Fashion Merchandising Study Tour is an organized trip to a designated city or country that allows student to explore the various facets of the fashion industry through visits to manufacturing facilities, designer showrooms, pattern companies, advertising agencies, retailers, colleges, forecasters, publishers, and museums. OPEN TO MAJORS ONLY.
- FMCT 497B Textiles Study Tour Credit 1-3**
 Textiles Study Tour is an organized trip to a designated city or country that allows student to explore the various facets of the textile manufacturers, converters, testing laboratories, and museums. OPEN TO MAJORS ONLY.
- FMCT 499 Independent Study/Research in Fashion/Clothing Credits 1-3**
 Independent Study/Research in Fashion allows the student to participate in an intensive study of a specialized topic or existing research project related to fashion or clothing. Permission to take an independent study must be obtained from the instructor. OPEN TO MAJORS AND MINORS ONLY.

HUMAN ECOLOGY

- HUEC 100 First Year Experience Seminar Credit 1**
 This course provides an opportunity for students to make a seamless transition from high school to college. Essential skills for transition will be explored and discussed. This course assists students in developing cognitive skills and in adjusting personally and socially to the college environment. Additionally this course facilitates self-awareness and interpersonal communication. Requirement for all first year students. This course is taken by HUMAN ECOLOGY MAJORS in lieu of GNST 101. One lecture.
- HUEC 101 Principles of Art and Design/Lab Credit 3**
 Principles of Art and Design/Lab is designed to introduce students to the basic principles and elements of art and design through a variety of studio projects. The course consists of two lecture hours and one laboratory hour. OPEN TO MAJORS AND MINORS ONLY.

- HUEC 203 Human Development: A Lifespan Perspective/Online Credit 3**
This course is a study of human development from conception to death. It examines the interactions within the family system from a lifespan perspective. MAY NOT RECEIVE CREDIT FOR PSYC 305. Satisfies Gen. Ed. Requirement Area II.
- HUEC 220 Perspectives on Aging Credit 3**
This is an interdisciplinary course that examines the phenomenon of aging and its consequences for society from a variety of perspectives. The course is designed to give students a broad overview of the field of gerontology. Satisfies GEN ED CURR AREA II.
- HUEC 230/W Multicultural Perspectives on Families in the U.S. Credit 3**
This course is an interdisciplinary introduction to the concepts central to multiculturalism and diversity as they apply to the study of contemporary families in the U.S. Satisfies GEN ED CURR AREA VI.
- HUEC 243 Housing Design Credit 3**
This course is a study of the interaction of people and the built environment. It examines ergonomics, anthropometrics, and proxemics in human factors and lifespan issues as they relate to the design of interiors. Prerequisites: PSYC 200, SOCI 101.
- HUEC 310 Resource Management/Honors Credit 3**
This course focuses on the allocation and management of resources, personal and family financial decision making, and wise selection and purchase of consumer goods and services. Prerequisites: MATH 102 or MATH 109, SOCI 101, PSYC 200. OPEN TO MAJORS AND MINORS ONLY.
- HUEC 343 Dwelling Credit 3**
This course is an examination of contemporary housing issues within the context of the socio-economic, political, and psychological factors that impact the process of housing. Major theories and policies will be discussed.
- HUEC 361 Contemporary Family Issues Credit 3**
This course is a study of contemporary issues affecting the family system, such as parenting, divorce, death, drug dependence, non-traditional life styles, mobility, and chronic illness. Prerequisites: SOCI 101, PSYC 200. Satisfies GEN ED AREA II. OPEN TO MAJORS AND MINORS ONLY.
- HUEC 370 Professional Development/Online Credit 2**
This course is designed to prepare students for a professional career in various divisions of Human Ecology. Emphasis is placed on resume writing, interviewing skills, dressing for success, developing a professional image, presentational and oral communication skills, and planning and organizing presentations before small and large audiences. OPEN TO MAJORS ONLY.
- HUEC 399 Pre-Internship Seminar/Online Credit 1**
Pre-internship Seminar is designed to prepare students for internships in the field of family and consumer sciences/human ecology. This course consists of one lecture hour. Prerequisite: Junior Level Standing. OPEN TO MAJORS ONLY.
- HUEC 400 Internship Credit 3-5**
Internship is a supervised work experience in an approved work setting planned cooperatively with business establishments, agencies, or centers. Fashion and family and consumer science students take this course during the summer preceding the senior year for three credits. Child development students register for **five** credits during their final semester and register concurrently with HUEC 409 and HUEC 450. Two hundred clock hours of field experience are required. Prerequisite: HUEC 399. OPEN TO MAJORS ONLY.
- HUEC 409 Post-Internship Seminar Credit 1**
Post-Internship Seminar provides the opportunity for students to reflect upon and present an overview of their work experience in their discipline. The course is one hour. Prerequisites: Senior Level Standing, HUEC 400, or permission of the instructor. OPEN TO MAJORS ONLY.
- HUEC 450 Practicum-Human Development Credit 1-5**
This course is a concentrated, continuous, on the job experience in various aspects of human services under the supervision and guidance of trained personnel. Students with a Child Development concentration will observe and participate with groups of young children in Day Care/Headstart Centers or with older children in shelters and youth programs. Students taking this course for a minor in gerontology will be assigned to an agency/organization or institution that serves the elderly. Students have to have 40 clock hours for each credit hour. OPEN TO MAJORS AND MINORS ONLY.

HUEC 460 The Family and Aging Credit 3
This course examines the aging process and its impact on the family and explores the characteristics, attitudes, behaviors, and concerns of older people, including their physical, psychological, social, and economic needs. Related legislative and community resources are also examined.

HUEC 464 Social Psychology of Food, Clothing and Shelter Credit 3
This course includes interdisciplinary examination of the socio-psychological and economic dimensions of choices related to food, clothing, and shelter in multicultural family and community environments. OPEN TO MAJORS AND MINORS ONLY.

HUEC 474 Research Methodology/Honors Credit 2
This course covers an overview of research methods commonly used in human ecology related disciplines. Upon completion of the course, the students should be able to read and critique studies. They should also be able to design and conduct experiments related to their field of study. Students should also be able to design and carry out their own research studies. Prerequisite: Senior Level Status. OPEN TO MAJORS ONLY.

HUEC 487 Supervisory Management/Honors Credit 3
This course is the study of principles and applications of managerial skills required for first-line supervisors. Emphasis is on supervisory functions, decision-making, delegation, motivation is leadership styles, communication, and conflict-resolution. Open to all students. Prerequisite: Senior Standing. OPEN TO MAJORS AND MINORS ONLY.

HUEC 490 Consumer Motivation/Honors Credit 3
This course offers an interdisciplinary approach to the study of consumer motivation and behavior in the marketplace with emphasis on functioning of the market system and models of consumer behavior. Prerequisites: SOCI 101, PSYC 200. OPEN TO MAJORS AND MINORS ONLY.

HUEC 499 Independent Study/Undergraduate Research Credit 1-3
Students who wish to get advanced experience in a particular area of their discipline and an opportunity to do supervised, individualized studies may enroll in this course. The maximum number of undergraduate special topics or independent study credits that may be taken with the same prefix and number is determined by the student's major department. Department chair's approval is required. OPEN TO MAJORS ONLY.

NUTRITION, DIETETICS

NUDT 210 Elements of Nutrition Credit 3
This is an introductory level nutrition course, which covers the fundamental concepts, nutrient functions, and human nutritional requirements.

NUDT 211 Scientific Principles of Food I Credit 3
This is a fundamental course in food preparation based on physical, chemical, and nutritional changes occurring in food. Government regulations governing food and food safety are also covered. Product evaluation using sensory techniques is emphasized. One lecture and two laboratories. OPEN TO MAJORS AND MINORS ONLY.

NUDT 212 Scientific Principles of Food II Credit 3
This is a continuation of NUDT 211. Students are required to carry out individual and group projects to further their understand of the principles covered. Prerequisite: NUDT 211. One lecture and two laboratories. OPEN TO MAJORS AND MINORS ONLY.

NUDT 214 Infant and Child Nutrition Credit 3
The course is the study of nutrition from conception through adolescence, including factors affecting nutrient requirements, food choices, and nutritional problems. Special emphasis is placed on managing feeding problems and the relationship between nutrition, and physical and mental development.

NUDT 300 Essentials of Nutrition Practice Credit 1
This course introduces the student to nutrition/dietetics practice. It includes a review of the history of the profession as well as the educational and experiential requirements for the nutrition practice. Course content includes legislation, standards, and regulations affecting practice; professional and bioethics; career opportunities; and factors which affect the delivery of nutrition services. The course is open to junior or senior level nutrition/dietetics majors.

- NUDT 305 Nutrition in the Life Cycle Credit 3**
 This course will provide students with an understanding of the nutritional requirements and related health concerns occurring throughout the life cycle. Course covers relevant topics including growth and development, nutrient needs, assessment of nutritional status and special problems associated with stages of the life cycle starting from conception through adulthood and aging. Prerequisite: NUDT 210, or permission of the instructor. OPEN TO MAJORS AND MINORS ONLY.
- NUDT 310 Nutrition Education and Counseling Credit 3**
 This course includes a study of nutrition education and counseling principles and techniques; students explore counseling strategies used to assess and modify nutrition behaviors. Prerequisite: PSYC 200. This course is cross-listed with NUDT 499F. OPEN TO MAJORS AND MINORS ONLY.
- NUDT 391 Nutritional Science I Credit 3**
 This course examines the biochemical and physical bases of human nutritional requirements. It covers the digestion and metabolism of carbohydrates, proteins, fats, minerals and vitamins. Prerequisites: CHEM 211+213 and 212+214. This course is cross-listed with NUDT 499C. OPEN TO MAJORS AND MINORS ONLY.
- NUDT 392 Nutritional Science II Credit 3**
 This course is a continuation of NUDT 391. Survey of current literature and research in nutrition is also included. Prerequisites: NUDT 391 and CHEM 341+343. This course is cross-listed with NUDT 499A. OPEN TO MAJORS AND MINORS ONLY.
- NUDT 401 Clinical Nutrition I Credit 3**
 This course involves the application of nutritional concepts to the treatment of disease states. Concepts and/or skills acquired include nutrition screening/assessment, food/drug/herbal interaction, and principles of nutrition care management including nutrition support. Prerequisite: NUDT 392. This course is cross-listed with NUDT 499. OPEN TO MAJORS AND MINORS ONLY.
- NUDT 402 Clinical Nutrition II Credit 3**
 This course is a continuation of NUDT 401; concepts and skills acquired in NUDT 401 are expanded to include nutrition management of diseases affecting organ systems and in-born errors of metabolism. Prerequisite: NUDT 401. This course is cross-listed with NUDT 499D. OPEN TO MAJORS AND MINORS ONLY.
- NUDT 471 Foodservice Systems Management Credit 5**
 This course focuses on foodservice systems organization and management. Students explore concepts and applications of food safety principles, menu planning, purchasing, production, service, and resource management. Content also includes marketing strategies and use of computer technology in foodservice operations. Course combines didactic and laboratory offerings. Open to Juniors and Seniors. Prerequisites: NUDT 211 and NUDT 212. This course is cross-listed with NUDT 499H.
- NUDT 473 Community Nutrition Credit 3**
 This course involves a study of planning, implementation and evaluation of nutrition programs. Strategies and resources for community needs assessment, health promotion and disease prevention; programming and funding are also included. Prerequisites: NUDT 310 or permission of the instructor. This course is cross-listed with NUDT 499E.
- NUDT 475 Senior Practicum Credit 4**
 This course involves experiential learning designed to allow students to observe and practice the role of a nutrition practitioner in a health care setting. Students will have experiences in community, clinical and food service domains. Prerequisite: NUDT 471. Senior level status. OPEN TO MAJORS ONLY. This course is cross-listed with NUDT 499B.
- NUDT 484 Nutrition Research Credit 3-5**
 This course requires students to understand the principles of basic experimental design and plan and carry out a specific project in their area of interest. Prerequisites: Senior level status and permission of the instructor. This course is cross-listed with 499G.
- NUDT 485 International Nutrition Credit 3**
 This course will explore international aspects of nutrition, including global nutrition concerns, world hunger and malnutrition. Local, national, and international programs involved in program planning and improvement will be investigated.

NUDT 499 Independent Study/Undergraduate Research Credit 1-5
 This course is designed for nutrition and dietetics majors wishing to explore topics of special interest through an independent study. Students must obtain prior approval of the independent project from the course instructor, and permission of the department chair. This course is limited to nutrition and dietetics majors only.

NUDT 499A	Nutritional Science II	Credit 3
NUDT 499B	Senior Practicum	Credit 4
NUDT 499C	Nutritional Science I	Credit 3
NUDT 499D	Clinical Nutritional II	Credit 3
NUDT499E	Community Nutrition	Credit 3
NUDT 499F	Nutrition Education & Counseling	Credit 3
NUDT499G	Nutrition Research	Credit 3-5
NUDT499H	Food Service System Management	Credit 5
NUDT499I	Independent Research	Credit 1-5

DIRECTORY OF FACULTY

- Cecil, Malinda** **Lecturer**
B.S., Hood College; M.S., Virginia Tech
- Clinton, Bridgett** **Lecturer**
B.S., University of Maryland Eastern Shore; M.S., Michigan State University
- Hinnant-Bernard, Thessalenuere** **Visiting Associate Professor**
B.A. and M.S., North Carolina Central University; Ph.D., Iowa State University
- Lombuso Khoza** **Assistant Professor**
B.S., University of Maryland Eastern Shore; M.S., University of California, Davis; M.S., University of Leeds; Ph.D., Southern Illinois University Carbondale
- Kumelachew, Missale** **Associate Professor**
B.S., University of Minnesota; M.S., Howard University; Ph.D., University of Maryland College Park
- Long, Donna** **Assistant Professor**
B.A., Hood College; M.A., Trevecca Nazarene University; Ed.D., Wilmington College
- Lyon-Bennett, Nina** **Acting Chair and Associate Professor**
B.A., Clark College; M.S., Atlanta University; Ph.D., University of Georgia
- Satterlee, Donna** **Lecturer**
B.S., Beaver College; M.Ed., Old Dominion University
- Shaw, Anugrah** **Professor**
B.S., Delhi University; M.S., Maharaja Sayajirao University; Ph.D., Texas Woman's University

DEPARTMENT OF NATURAL SCIENCES

<http://www.umes.edu/SANS>

Dr. Joseph M. Okoh, Chairperson

MISSION

The mission of the Department of Natural Sciences (DNS) is to prepare students for employment in the diversified fields in biological, physical and environmental sciences and health related occupations. Our programs also prepare students for entry into graduate or professional schools.

DNS offers programs for students majoring in Biology, Chemistry, and Environmental Science and minors in Biology, Chemistry and Physics. The Chemistry Program is certified by the American Chemical Society. Also offered are teaching programs in Biology and Chemistry.

Included in the Department's offerings is a two year pre-Pharmacy program and minors in Biology, Chemistry, Environmental Science and Physics. In cooperation with the University of Maryland Center for Environmental and Estuarine Studies (CEES), combined four-year B.S./ five-year M.S. programs in Marine Sciences and Environmental Chemistry are available.

The Department offers courses leading to M.S. and Ph.D. degrees in Toxicology and the University-wide graduate program in Marine-Estuarine-Environmental Sciences.

The Department also provides courses which satisfy the general education requirements in the biological and physical sciences and supporting courses for students in other departments.

OBJECTIVES

The objectives of the programs in DNS are to:

1. Provide students with academic curricula to develop a strong understanding of basic science.
2. Prepare students to be adaptable to new developments in science.
3. Train students to conduct scientific research through example, mentoring and personal experience.
4. Prepare students for employment in newly evolving and conventional scientific fields related to their majors.
5. Expose students to social, historical, and ethical issues through the science curricula.
6. Promote interaction between the university and the community through faculty and students in the department.
7. Promote faculty development to accomplish the objectives of the department.

DEGREES OFFERED

Bachelor of Science – Biology Non-Teaching

Bachelor of Science – Biology Honors Non-Teaching, with Pre-Physical Therapy and Pre-Medicine Options

Bachelor of Science – Biology Education – Teaching

Bachelor of Science – Chemistry Non-Teaching (ACS*Certification)

Bachelor of Science – Chemistry Honors Non-Teaching (ACS*Certification), with Pre-Dentistry and Pre-Medicine Options

Bachelor of Science – Chemistry Non-Teaching

Bachelor of Science – Chemistry Education –Teaching

Bachelor of Science – Environmental Sciences

Bachelor of Science – Environmental Sciences Honors

Dual Degree

Bachelor of Science/Master of Science¹ (BS/MS) – Environmental Sciences

Bachelor of Science/Master of Science¹ (BS/MS) – Environmental Sciences Honors

PRE-PROFESSIONAL PROGRAMS OFFERED

Pre-Medicine

Pre-Pharmacy

DEPARTMENT GENERAL PROGRAM REQUIREMENTS

Maryland Higher Education Commission has set a graduation requirement of 120 semester hours to obtain a four year baccalaureate degree. The Biology, Chemistry and Environmental Science Programs require that majors earn a minimum grade of “C” in each course of the Program Core Courses and Program Electives and an overall “C” grade average in General Education and Supportive Course Requirements.

DEPARTMENTAL REQUIREMENTS

Biology Non-Teaching major: Students majoring in Biology non – Teaching must complete a total of 120¹ credit hours of University courses. This includes a minimum of 42 semester hours of General Education Requirements, 25 semester hours of Departmental Core courses, 20 semester hours of program electives, 31 semester hours of Supportive courses and 2 semester hours of free electives.

Biology Non-Teaching Honors: Students majoring in Biology non – Teaching Honors must complete a total of 120 credit hours of University courses. This includes a minimum of 42 semester hours of General Education Requirements, 25 semester hours of Departmental Core courses, 20 semester hours of program electives, 32 semester hours of Supportive courses and 2 semester hours of free electives. The admission of students to the undergraduate program in Biology is based upon the general admission requirements of the University. Minimum requirements for application to the UMES Honors Program include a cumulative grade point average of 3.3 and minimum SAT score of 1650. Additionally, for retention in the Honors Program, each student must maintain a semester grade point average of 3.0 in their major courses and a cumulative GPA of 3.3. Students must complete a minimum of two honors courses each semester.

Biology Non-Teaching - Pre-Med/Pre-Dentistry Tracks: Students majoring in Biology with Pre-Med/Pre-Dentistry Tracks must complete a total of 120 credit hours of University courses. This includes a minimum of 42 semester hours of General Education Requirements, 25 semester hours of Departmental Core courses, 19 semester hours of program electives and 34 semester hours of Supportive courses .

Biology Non-Teaching - Pre-Physical Therapy Track: Students majoring in Biology Non-Teaching with pre-Physical Therapy Track must complete a total of 120 credit hours of University courses. This includes a minimum of 42 semester hours of General Education Requirements, 25 semester hours of Departmental Core courses, 20 semester hours of program electives, 31 semester hours of Supportive courses and 2 semester hours of free electives.

Biology Teaching: Students in the major must complete a total of 120 credit hours of University courses. This includes a minimum of 42 semester hours of General Education Requirements, 17 semester hours of Departmental Core courses, 3 semester hours of program electives, 42 semester hours of professional Education courses, and 16 semester hours of Supportive courses.

Students who meet University of Maryland Eastern Shore’s admission requirements can enroll in Biology Education. Prospective Biology Teacher Education candidates are not formally admitted to the Professional Education Unit until they have completed an Application to Teacher Education and have been accepted.

¹Please consult the UMES Graduate Catalog for clarification of the Dual Degree MS requirements.

²Minimum Maryland Higher Education Committee (MHEC) requirements for a bachelor of science degree.

Teacher candidates who wish to major in Biology Education must have an overall and major content grade point average of 2.75 for admission into and retention in the program. For admission, overall GPA of 2.75 or higher in a minimum of 45 approved semester hours is required, passing the University's English Proficiency Seminar, and also PRAXIS I (scheduled and administered by Educational Testing Services) while registered for Praxis preparation course (Credit 1) EDCI 201.

	Passing Praxis Scores	
	Paper/Pencil Test	Computer-Based Test
Reading	177	325
Mathematics	177	322
Writing	173	319

Applications must be completed for admission to the Biology Education teacher program within the scheduled deadline. The teacher education application lists specific course requirements and requires two essays which address potential candidate's disposition toward teaching, as well as providing writing samples, and field experience recommendation. Four letters of recommendation from faculty (one has to be from the advisor) are also required.

Grades of "C" or above must be attained in each required course of the Biology Education major, the specialized content area combined with the professional educational courses. A candidate's progress is monitored each semester by the academic advisor to ensure that the candidate continues to meet the minimum GPA of 2.75 in both the major and overall course work.

In order to be eligible for internship, Biology Education candidates are required to submit the following indicators: application for internship, field experience, and pre-internship recommendations, methods instructor recommendations, formal academic measures including a 2.75 or higher overall grade point average, a 2.75 grade point average in the major, with no grades lower than C in all courses, PRAXIS II passing scores in Biology, and working portfolio review.

All Biology Education candidates must satisfactorily complete the independent research project and manuscript prior to graduation. The candidates must satisfactorily complete the professional portfolio, which is started early in the program and revised and completed during the internship experience, is tied to the INTASC Principles, Unit's Conceptual Framework, and NSTA standards prior to graduation. They must also complete an Exit Survey.

Chemistry non -Teaching with ACS Certification*: To obtain an ACS-certified chemistry degree, students must complete a total of 120 credit hours of University courses. This includes a minimum of 52 semester hours of program core courses, 15-16 hours of supportive courses, 7-8 hours of program electives courses, 43 hours of general education courses, and 2 hours of free electives courses from the approved lists of requirements as outlined in the catalog. The students must also follow ACS guidelines for CHEM 499 (undergraduate research). This includes research project conducted at UMES and comprehensive research report. The report should be written to meet the ACS requirement as outlined in the ACS document "Guidelines for Preparing a Research Report." For more information, please refer to the ACS website www.ACS.org.

Chemistry Non -Teaching with ACS Certification* with Pre-Medicine/Pre-Dentistry tracks: students must complete a total of 120 credit hours of University courses to obtain an ACS-certified chemistry degree. This includes 48-49 semester hours of program core courses, 18-19 hours of supportive courses, 7-8 hours of program electives courses, 43 hours of general education courses, and 3 hours of free electives courses from the approved lists of requirements as outlined in the catalog. The students must also follow ACS guidelines for CHEM 499 (undergraduate research). This includes a research project conducted at UMES and a comprehensive research report. The report should be written to meet the ACS requirement as outlined in the ACS document "Guidelines for Preparing a Research Report." From more information, please refer to the ACS website, www.ACS.org.

Chemistry non -Teaching without ACS Certification: Students must complete a minimum of 120 credit hours which include 52 semester hours of program core courses, 15 (16) hours of supportive courses, 7-8 hours of program electives courses, 43 hours of general education courses and 2 hours of free electives courses from the approved lists of requirements as outlined in the catalog. Students are not required to follow the ACS course guidelines since the degree is non-ACS certified.

Chemistry Teaching: Maryland Higher Education Commission has set a graduation requirement of 120 semester hours to obtain a 4 year baccalaureate degree. Students must complete 52 semester hours of program core courses, 15 (16) hours of supportive courses, 7-8 hours of program electives courses, 43 hours of general education courses and 2 hours of free electives courses from the approved lists of requirements as outlined in the catalog. Students are not required to follow the ACS course guidelines since the degree is non-ACS certified. Teacher candidates who wish to major in Chemistry Education must have an overall and major content grade point average of 2.75 for admission into and retention in the program. For admission, overall GPA of 2.75 or higher in a minimum of 45 approved semester hours, passing the University's English Proficiency Seminar, and PRAXIS I (scheduled and administered by Educational Testing Services) while registered for Praxis preparation course (Credit 1) EDCI 201 are required.

Any individual who meets University of Maryland Eastern Shore's admission requirements can enroll in chemistry Education. Prospective Chemistry Teacher Education candidates are not formally admitted to the Professional Education Unit until they have completed an Application to Teacher Education and have been accepted.

Teacher candidates who wish to major in Chemistry Education must have an overall and major content grade point average of 2.75 for admission into and retention in the program. For admission, overall GPA of 2.75 or higher in a minimum of 45 approved semester hours is required, passing the University's English Proficiency Seminar, and also PRAXIS I (scheduled and administered by Educational Testing Services) while registered for Praxis preparation course (Credit 1) EDCI 201.

Passing Praxis Scores

Paper/Pencil Test		Computer-Based Test
Reading	177	325
Mathematics	177	322
Writing	173	319

In order to be eligible for internship, Chemistry Education candidates are required to submit the following indicators: application for internship, field experience, and pre-internship recommendations, methods instructor recommendations, formal academic measures including a 2.75 or higher overall grade point average, a 2.75 grade point average in the major, with no grades lower than C in all courses, PRAXIS II passing scores in Chemistry, and working portfolio review.

All Chemistry Education candidates must satisfactorily complete the independent research project and manuscript prior to graduation. The candidates must satisfactorily complete the professional portfolio, which is started early in the program and revised and completed during the internship experience, is tied to the INTASC Principles, Unit's Conceptual Framework, and NSTA standards prior to graduation. They must also complete an Exit Survey.

Environmental Science - Environmental Chemistry Option: Students must complete 120 semester hours: 42 semester hours in general education courses, 29 semester of hours in program core courses, 46 semester hours in program supportive courses and 3 semester hours in program electives. Students are required, to take independent study and/or undergraduate research in their junior or senior year.

Environmental Science - Marine Science Option: Students must complete 120 semester hours: 42 semester hours in general education courses, 38 semester hours in program core courses, 34 semester hours in program supportive courses and 6 semester hours in electives. Students are required, to take an independent study or undergraduate research in their junior or senior year.

Dual Degree Program - Environmental Science (Marine Sciences Track) UMES - SU Dual Degree Program-Students enrolled at Salisbury University in the Biology Program may earn a degree in Environmental Sciences from UMES by taking 30 hours of prescribed coursework in Environmental Science at UMES in addition to other required courses at Salisbury University.

Combined Four-year/Five-year B.S./M.S. Degree Program with Environmental Chemistry and Marine Sciences options: The two options are administered under the auspices of the undergraduate Environmental Science and the graduate Marine-Estuarine-Environmental Science (MEES) programs. The student receives the B.S. and M.S. degrees after completing the requirements for the two programs. A student wishing to pursue the 5-year M.S. program must make a formal application to the MEES program in the first semester of the Junior year. Students must take the GRE (General Test) during their junior year. They have the option of being in residence at UMES or at a participating CEES campus during their senior and fifth years.

Students enrolled in the Environmental Chemistry option must complete 120 semester hours of undergraduate courses and 30 semester hours graduate courses for their degrees: 42 semester hours in general education courses, 29 semester hours in undergraduate program core courses, 11 semester hours of program electives and 45 semester hours of supportive courses. To receive the M.S. degree, students must satisfy degree requirements which include a total of 21 course credits: course work (15 credits) and Master's Thesis research (6 credits).

Students who enroll in the Marine Science option must complete 120 semester hours of undergraduate courses and 30 semester hours of graduate courses for their degrees: 42 semester hours of general education courses, 41 semester hours of undergraduate program core courses, 38 semester hours of supportive courses and 9 semester hours of program elective courses. To receive the M.S. degree, students must satisfy degree requirements which include a total of 30 course credits: course work (24 credits) and Master's Thesis research (6 credits).

Pre-Pharmacy Curriculum: Pre pharmacy students must complete 73 semester hours of courses with a grade of "C" or better, which include a minimum of 20 hours of biology and chemistry at the 200 level or above and 8 hours of physics courses.

BIOLOGY NON-TEACHING

DEPARTMENTAL REQUIREMENTS

Students majoring in Biology Non-Teaching must complete a total of 120¹ credit hours of University courses. This includes a minimum of 42 semester hours of General Education Requirements, 25 semester hours of Departmental Core courses, 20 semester hours of program electives, 31 semester hours of Supportive courses and 2 semester hours of free electives. The specific courses taken in the undergraduate program are generally chosen based on the goals of the student for their future career.

OBJECTIVES

The objectives of the Biology Program are to:

1. Provide Biology majors in the Department of Natural Sciences with the knowledge and information necessary to achieve success in graduate and/or professional schools and the workforce;
2. Provide Biology majors with advanced knowledge and information in the fields general Biology and/or Ecology;
3. Increase the level of competency in laboratory techniques and skills of Biology majors in the Department of Natural Sciences; and
4. Develop technical communication and critical thinking skills of Biology majors in the Department of Natural Sciences and train the same through mentoring and personal experience to conduct scientific research.

COMMON REQUIRED COURSES

BIOL 111	BIOL 222	BIOL 301	BIOL 497
BIOL 113	BIOL 223	BIOL 303	
BIOL 112			
BIOL 114			

CAREER OPPORTUNITIES

A Biology degree has many career opportunities based on a person's interests and undergraduate preparation. Biologists can pursue a biomedical or graduate degree for entrance into a specialized area of medicine, dentistry, academia, research or consulting careers. Three resources for careers opportunities are the following websites: Sciencecareers.sciencemag.org covers all sciences while www.aibs.org/careers covers all area of Biology and www.ecoemploy.com covers the ecological and environmental fields.

REQUIRED MAJOR COURSES

BIOL 111	BIOL 222	BIOL 301	BIOL 497
BIOL 113	BIOL 223	BIOL 303	BIOL 498
BIOL 112			BIOL 499
BIOL 114			

¹Minimum Maryland Higher Education Committee (MHEC) requirements for a Bachelor of Science Degree.

CURRICULUM GUIDE FOR BIOLOGY - NON-TEACHING

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 111	3	BIOL 112	3
BIOL 113	1	BIOL 114	1
CHEM 111	3	CHEM 112	3
CHEM 113	1	CHEM 114	1
DNSC 100	1	ENGL 102	3
ENGL 101	3	ENGL 001	0
MATH 110	<u>3</u>	MATH 112	<u>4</u>
	15		15

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL Elective	4	BIOL 222	3
CHEM 211	3	BIOL 223	1
CHEM 213	1	CHEM 212	3
EDHE 111	3	CHEM 214	1
ENGL 203	3	ENGL 305 or	
GEN ED CURR. AREA	<u>3</u>	ENGL 310	3
	17	CSDP 121 or	
		BUED 212	3
		CSDP 220	<u>4</u>
			18

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL Elective	4	BIOL Elective	4
BIOL 301	3	PHYS 122 and	
BIOL 303	1	PHYS 124 or	
GEN ED CURR AREA I	3	PHYS 182H and	3
PHYS 121 and		PHYS 184	1
PHYS 123 or		GEN ED CURR AREA I	3
PHYS 181H and	3	GEN ED CURR AREA II	<u>3</u>
PHYS 183H	<u>1</u>		14
	15		

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL Elective	4	BIOL Elective	4
BIOL 497	1	BIOL 499	4
BIOL 498	3	CHEM 342	3
CHEM 341	3	CHEM 344	1
CHEM 343	1	MATH 210	<u>3</u>
DNSC 400	1		15
FREE Elective	<u>2</u>		
	15		

Total Credit Hours: 120

BIOLOGY NON-TEACHING HONORS

DEPARTMENTAL REQUIREMENTS

Students majoring in Biology Non-Teaching Honors must complete a total of 120 credit hours of University courses. This includes a minimum of 42 semester hours of General Education Requirements, 25 semester hours of Departmental Core courses, 20 semester hours of program electives, 32 semester hours of Supportive courses and 2 semester hours of free electives. The admission of students to the undergraduate program in Biology is based upon the general admission requirements of the University. Minimum requirements for application to the UMES Honors Program include a cumulative grade point average of 3.3 and minimum SAT score of 1650. Additionally, for retention in the Honors Program, each student must maintain a semester grade point average of 3.0 in their major courses and a cumulative GPA of 3.3. Students must complete a minimum of two honors courses each semester. Honors students interested in the pre-medicine and pre-dentistry tracks should consult the section in the catalogue describing the pre-medicine Biology major emphasis.

OBJECTIVES

The primary mission of The Honors Biology Program is to prepare academically talented students for entry into graduate and professional schools with an emphasis on admission into PhD graduate programs, and also professional schools that offer degrees in Doctor of Medicine*, Dental Surgery*, Pharmacy and Veterinary Medicine. The objectives are to:

1. Provide Biology majors with advanced knowledge and information in the fields of General Biology and/or Ecology in courses at an accelerated rate;
2. Develop competencies in laboratory techniques and skills that will be necessary upon entrance into the professional working environment; and
3. Develop technical, communication and critical thinking skills of Biology majors in the Department of Natural Sciences and train the same through mentoring and personal experience to conduct scientific research.

COMMON REQUIRED COURSES

BIOL 111 ¹	BIOL 222	BIOL 301	BIOL 497
BIOL 113 ¹	BIOL 223	BIOL 303	
BIOL 112 ¹			
BIOL 114			

CAREER OPPORTUNITIES

The Honors Curriculum is challenging and facilitates acceptance into internships furthering the student's career at UMES. As graduates have a higher rate of entry into graduate programs nationwide, they can pursue a biomedical or graduate degree for entrance into a specialized area of medicine, dentistry, academia, research or consulting careers. Three resources for careers opportunities are the following websites: Sciencecareers.science.org covers all sciences while www.aibs.org/careers covers all area of Biology and www.ecoemploy.com covers the ecological and environmental fields.

The specific courses taken in the undergraduate program are generally chosen based on the goals of the student for their future career.

REQUIRED MAJOR COURSES

BIOL 111 ¹	BIOL 222	BIOL 301	BIOL 497
BIOL 113 ¹	BIOL 223	BIOL 303	BIOL 498
BIOL 112 ¹			BIOL 499
BIOL 114 ¹			

¹Honors Program students are required to enroll in the Honors sections of these courses.

CURRICULUM GUIDE FOR BIOLOGY NON-TEACHING HONORS¹

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 111H	3	BIOL 112H	3
BIOL 113H	1	BIOL 114H	1
CHEM 111H	3	CHEM 112H	3
CHEM 113H	1	CHEM 114H	1
DNSC 100	1	ENGL 102H	3
ENGL 101H	3	ENGL 001	0
MATH 110	<u>3</u>	MATH 112	<u>4</u>
	15		15

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL Elective	4	BIOL 222	3
CHEM 211H	3	BIOL 223	1
CHEM 213H	1	BUED 212	3
EDHE 111	3	CHEM 212H	3
ENGL 203	3	CHEM 214H	1
GEN ED CURR AREA II (Honors)	<u>3</u>	ENGL 305H or	
	17	ENGL 310	<u>3</u>
			14

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL Elective	4	BIOL Elective	4
BIOL 301	3	GEN ED CURR AREA I (Honors)	3
BIOL 303	1	GEN ED CURR AREA II	3
GEN ED CURR AREA ¹	3	PHYS 182H	3
PHYS 181H	3	PHYS 184H	<u>1</u>
PHYS 183H	<u>1</u>		14
	15		

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 498H	3	BIOL Elective	4
BIOL Elective	4	BIOL 499H	4
BIOL 497H	1	CHEM 342H	3
CHEM 341H	3	CHEM 344H	1
CHEM 343H	1	MATH 210	<u>3</u>
DNSC 400	1		15
FREE Elective	<u>2</u>		
	15		

Total Credit Hours: 120

¹Students in the Honors, Pre Medicine or Pre Dentistry programs are required to enroll in all sections designated "H". They are required to take the Medical College Admission Test (MCAT) during the Spring semester of the academic year preceding the year in which admission to medical school is sought. Applications to medical school(s) should be made no later than the fall of the senior year. Genetics, Cell Biology, Comparative Vertebrate Anatomy, Histology and Microbiology are strongly recommended.

BIOLOGY NON-TEACHING - PRE-MEDICINE TRACK

DEPARTMENTAL REQUIREMENTS

Students majoring in Biology with Pre-Med/Pre-Dentistry Tracks must complete a total of 120 credit hours of University courses. This includes a minimum of 42 semester hours of General Education Requirements, 25 semester hours of Departmental Core courses, 19 semester hours of program electives and 34 semester hours of Supportive courses .

OBJECTIVES

The objectives of the Biology Program are to:

1. Provide Biology majors in the Department of Natural Sciences with the knowledge and information necessary to gain entry into Medical School;
2. Provide Biology majors with a curriculum that would advance their general knowledge in the field of Biology that is necessary for successfully completing standardized examinations required for the entry into Medical School;
3. Increase the level of competency in laboratory techniques and skills of Biology majors in the Department of Natural Sciences to ultimately prepare the student for the rigors of Medical School; and
4. Develop technical communication and critical thinking skills of Biology majors in the Department of Natural Sciences and train the same through mentoring and personal experience to perform in medical programs.

COMMON REQUIRED COURSES

BIOL 111	BIOL 222	BIOL 301	BIOL 497
BIOL 113	BIOL 223	BIOL 303	
BIOL 112			
BIOL 114			

CAREER OPPORTUNITIES

A Biology degree has many opportunities based on a person's interests and undergraduate preparation. Biologists can pursue a biomedical or graduate degree for entrance into a specialized area of medicine, dentistry, academia, research or consulting careers. Three resources for careers opportunities are the following websites: Sciencecareers.sciencemag.org covers all sciences while www.aibs.org/careers covers all area of Biology and www.ecoemploy.com covers the ecological and environmental fields. The specific courses taken in the undergraduate program are generally chosen based on the goals of the student for their future career.

REQUIRED MAJOR COURSES

BIOL 111	BIOL 222	BIOL 497
BIOL 113	BIOL 223	BIOL 498
BIOL 112	BIOL 301	BIOL 499
BIOL 114	BIOL 303	

CURRICULUM GUIDE FOR BIOLOGY NON-TEACHING - PRE-MEDICINE/PRE-DENTISTRY TRACK

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 111	3	BIOL 112	3
BIOL 113	1	BIOL 114	1
CHEM 111	3	CHEM 112	3
CHEM 113	1	CHEM 114	1
DNSC 100	1	ENGL 102	3
ENGL 101	3	ENGL 001	0
MATH 110	<u>3</u>	MATH 112	<u>4</u>
	15		15

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CHEM 211	3	BIOL 222	3
CHEM 213	1	BIOL 223	1
MATH 210	3	CHEM 212	3
PSYC 200	3	CHEM 214	1
GEN ED CURR AREA I	<u>3</u>	CSDP 220 or	4
	13	CSDP 212	3
		ENGL 203	<u>3</u>
			14/15

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 311	4	BIOL 301	3
BIOL 322	4	BIOL 303	1
EDHE 111	3	BIOL 341	4
PHYS 121	3	ENGL 305/Honors/Online	3
PHYS 123	<u>1</u>	PHYS 122	3
	15	PHYS 124	<u>1</u>
			15

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 326	3	BIOL 436	3
BIOL 327	1	BIOL 498	3
BIOL420	3	CHEM 342	3
BIOL 421	1	CHEM 344	1
BIOL 497	1	GEN ED CURR AREA I	3
CHEM 341	3	SOCI 101	<u>3</u>
CHEM 343	1		16
DNSC 400	1		
ENGL 218	<u>3</u>		
	17		

Total Credits Hours: 120

¹Students in the Pre-Medicine/Pre-Dentistry programs are required to take the Medical College Admission Test (MCAT) during the Spring semester of the academic year preceding the year in which admission to medical school is sought. Applications to medical school(s) should be made no later than the fall of the senior year. Genetics, Cell Biology, Comparative Vertebrate Anatomy, Histology and Microbiology are strongly recommended.

**BIOLOGY - NON-TEACHING
PRE-PHYSICAL THERAPY TRACK**

DEPARTMENTAL REQUIREMENTS

Students majoring in Biology Non-Teaching with Pre-Physical Therapy Track must complete a total of 120 credit hours of University courses. This includes a minimum of 42 semester hours of General Education Requirements, 25 semester hours of Departmental Core courses, 20 semester hours of program electives, 31 semester hours of Supportive courses and 2 semester hours of free electives.

OBJECTIVE

The objective of the Biology Pre Physical Therapy Program is to prepare students to meet the requirements for application to professional programs leading to the DPT degree.

COMMON REQUIRED COURSES

BIOL 111	BIOL 222	BIOL 301	BIOL 497
BIOL 113	BIOL 233	BIOL 303	
BIOL 112			
BIOL 114			

CAREER OPPORTUNITIES

Graduates of this program will be prepared for entry into the doctor of Physical therapy degree at UMES or any other institutions of their choice. Also, biologists can pursue a biomedical or graduate degree for entrance into a specialized area of medicine, dentistry, academia, research or consulting careers. Three resources for careers opportunities are the following websites: Sciencecareers.sciencemag.org covers all sciences while www.aibs.org/careers covers all area of Biology and www.ecoemploy.com covers the ecological and environmental fields. The specific courses taken in the undergraduate program are generally chosen based on the goals of the student for their future career.

REQUIRED BIOLOGY MAJOR COURSES

BIOL 111	BIOL 301	BIOL 498
BIOL 113	BIOL 303	BIOL 489
BIOL 112		BIOL 497
BIOL 114		

**CURRICULUM GUIDE FOR BIOLOGY NON-TEACHING
PRE-PHYSICAL THERAPY TRACK**

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 111	3	BIOL 112	3
BIOL 113	1	BIOL 114	1
CHEM 111	3	CHEM 112	3
CHEM 113	1	CHEM 114	1
DNSC 100	1	ENGL 102	3
ENGL 101	3	ENGL 001	0
MATH 110	<u>3</u>	MATH 112	<u>4</u>
	15		15

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL Elective	4	BIOL 222	3
CHEM 211	3	BIOL 223	1
CHEM 213	1	CHEM 212	3
EDHE 111	3	CHEM 214	1
BIOL 203	3	CSDP 220 or	
GEN ED CURR AREA I	<u>3</u>	CSDP 121 or	
	17	BUED 212	3
		ENGL 305 or	
		ENGL 310	<u>3</u>
			14

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL Elective	4	BIOL Elective	4
BIOL 301	3	PHYS 122 and	
BIOL 303	1	PHYS 124 or	
GEN ED CURR AREA I	3	PHYS 182H and	3
PHYS 121 and		PHYS 184 H	1
PHYS 123 or		GEN ED CURR AREA I	3
PHYS 181H	3	GEN ED CURR AREA II	<u>3</u>
PHYS 183H	<u>1</u>		14
	15		

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL Elective	4	BIOL Elective	4
BIOL 497	1	BIOL 499	4
BIOL 498	3	CHEM 342	3
CHEM 341	3	CHEM 344	1
CHEM 343	1	MATH 210	<u>3</u>
FREE Elective	3		15
DNSC 400	<u>1</u>		
	16		

Total Credit Hours: 120

BIOLOGY EDUCATION - TEACHING

DEPARTMENTAL REQUIREMENTS

Students in the major must complete a total of 120 credit hours of University courses. This includes a minimum of 42 semester hours of General Education Requirements, 17 semester hours of Departmental Core courses, 3 semester hours of program electives, 42 semester hours of professional Education courses, and 16 semester hours of Supportive courses.

Students who meet University of Maryland Eastern Shore's admission requirements can enroll in Biology Education. Prospective Biology Teacher Education candidates are not formally admitted to the Professional Education Unit until they have completed an Application to Teacher Education and have been accepted.

Teacher candidates who wish to major in Biology Education must have an overall and major content grade point average of 2.75 for admission into and retention in the program. For admission, overall GPA of 2.75 or higher in a minimum of 45 approved semester hours is required, passing the University's English Proficiency Seminar, and also PRAXIS I (scheduled and administered by Educational Testing Services) while registered for Praxis preparation course (Credit 1) EDCI 201.

	Passing Praxis Scores	
	Paper/Pencil Test	Computer-Based Test
Reading	177	325
Mathematics	177	322
Writing	173	319

Applications must be completed for admission to the Biology Education teacher program within the scheduled deadline. The teacher education application lists specific course requirements and requires two essays which address potential candidate's disposition toward teaching, as well as providing writing samples, and field experience recommendation. Four letters of recommendation from faculty (one has to be from the advisor) are also required.

Grades of "C" or above must be attained in each required course of the Biology Education major, the specialized content area combined with the professional educational courses. A candidate's progress is monitored each semester by the academic advisor to ensure that the candidate continues to meet the minimum GPA of 2.75 in both the major and overall course work.

In order to be eligible for internship, Biology Education candidates are required to submit the following indicators: application for internship, field experience, and pre-internship recommendations, methods instructor recommendations, formal academic measures including a 2.75 or higher overall grade point average, a 2.75 grade point average in the major, with no grades lower than C in all courses, PRAXIS II passing scores in Biology, and working portfolio review.

All Biology Education candidates must satisfactorily complete the independent research project and manuscript prior to graduation. The candidates must satisfactorily complete the professional portfolio, which is started early in the program and revised and completed during the internship experience, is tied to the INTASC Principles, Unit's Conceptual Framework, and NSTA standards prior to graduation. They must also complete an Exit Survey.

OBJECTIVES

The objectives of the Biology Education Program are as to:

1. Expose teacher candidates in Biology from diverse cultural backgrounds to the breadth and depth of content knowledge in Biology and related sciences necessary for fulfilling requirements of teaching careers in diverse cultural settings.
2. Train future teachers in Biology who will be competent in the application of modern technological advances in innovative ways of thinking and approaching critical issues related to both science and education.
3. Provide future teachers the opportunity to acquire mastery of skills through constant reflection of their teaching and techniques that are used to obtain, analyze, and interpret scientific information.

COMMON REQUIRED COURSES

BIOL 111	BIOL 222	BIOL 301	BIOL 497
BIOL 113	BIOL 223	BIOL 303	BIOL 498
BIOL 112			BIOL 499
BIOL 114			

CAREER OPPORTUNITIES

Apart from the employment opportunities outlined in Biology non-teaching program, the students receiving the teaching degree with Praxis I and II licensure can choose to enter a teaching career in secondary education.

REQUIRED MAJOR COURSES

BIOL 111	BIOL 222	BIOL 301	BIOL 497
BIOL 113	BIOL 223	BIOL 303	BIOL 498
BIOL 112			BIOL 499
BIOL 114			
EDCI 200 ²	EDSP 428 ²	PSYC 305 ¹	
EDCI 311 ²		PSYC 307 ¹	
EDCI 406 ²			
EDCI 409 ²			
EDCI 410 ²			
EDCI 425A ²			
EDCI 480/490 ³			

¹**Clinical Experiences** may consist of interviewing a student, teacher, or administrator, observing a meeting or a conference; visiting a school or community resource center; developing a case study; peer teaching; administering a test; or attending a meeting or a conference. Clinical Experiences generally require a limited amount of time in a school or with a student (10 hours). Teacher Candidates are asked to submit a report or a reflective journal that documents the completion of the assignment.

²**Field Experiences** always occur in a school setting and consist of 10 to 25 hours of visitation per course. The times vary based on the course requirement. Field Experiences usually require a student to keep a reflective journal which is submitted as part of the final grade. Listed below are the clinical and field experiences required for all professional courses in Biology Education.

³In **EDCI 480/490 (Internship)**, the teacher candidates in Biology have a full semester of student teaching—a middle school experience and a high school experience. Candidates are under the direct supervision of a Science Cooperating Teacher in Biology and also supervised by the University Supervisor who also serves as the Teacher Educator (Instructor of Methods and Internship) of Biology Education. University supervisor is required to observe and conference with the candidate and cooperating teacher a minimum of eight times, four times per student teaching placement, with an additional introductory meeting for each placement. Candidates begin by taking one or two classes from their cooperating teacher's schedule of teaching, and gradually picking up more until they have the experience of teaching a full load. The candidates are expected to demonstrate effective teaching skills such as facilitating collaborative group learning, motivating, and encouraging student learning activities, and assessing students' responses. They are to design a bulletin board display, prepare appropriate instructional materials, observe teaching, interview school personnel, participate in parent meetings, evaluate student work using multiple assessments, and become involved in the life of the school and the full role of a teacher. Documentation of performance based outcomes, as well as summative evaluative reports are prepared by cooperating teachers, based on their day-to-day experiences with the candidate, and by the university supervisor based on the observational visits and discussions with the candidates and cooperating teachers.

CURRICULUM GUIDE FOR BIOLOGY EDUCATION

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 111	3	BIOL 112	3
BIOL 113	1	BIOL 114	1
ENGL 101	3	EDHE 111	3
GEN ED CURR AREA II	3	ENGL 102	3
DNSC 100	1	ENGL 001	0
MATH 110	<u>3</u>	GEN ED CURR AREA I	3
	14	GEN ED CURR AREA II	<u>3</u>
			16

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL Elective	3	BIOL 222	3
CHEM 111	3	BIOL 223	1
CHEM 113	1	CHEM 112	3
EDCI 288 ¹	1	CHEM 114	1
EDCI 200	3	ENGL 305Online or	
ENGL 203	<u>3</u>	ENGL 301Online	3
	13	MATH 210	3
		PSYC 305	<u>3</u>
			17

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 301	3	PHYS 122	3
BIOL 303	1	PHYS 124	1
CHEM 211	3	CHEM 212	3
CHEM 213	1	CHEM 214	1
EDCI 311	3	EDCI 406	3
PHYS 121	3	EDCI 409	<u>3</u>
PHYS 123	1		14
PSYC 307	<u>3</u>		
	18		

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 497	1	EDCI 400	3
EDCI 410	3	EDCI 480	6
EDCI 425A	3	EDCI 490	<u>6</u>
EDSP 428	3		15
GEN ED CURR AREA I	<u>3</u>		
	13		

Total Credit Hours: 120

¹Credit does not count toward graduation.

CHEMISTRY NON-TEACHING ACS CERTIFICATION¹

DEPARTMENTAL REQUIREMENTS

To obtain an ACS-certified chemistry degree, students must complete a total of 120 credit hours of University courses. This includes a minimum of 52 semester hours of program core courses, 15-16 hours of supportive courses, 7-8 hours of program electives courses, 43 hours of general education courses, and 2 hours of free electives courses from the approved lists of requirements as outlined in the catalog. The students must also follow ACS guidelines for CHEM 499 (undergraduate research). This includes research project conducted at UMES and comprehensive research report. The report should be written to meet the ACS requirement as outlined in the ACS document "Guidelines for Preparing a Research Report." For more information, please refer to the ACS website www.ACS.org.

OBJECTIVES

The objectives of the Chemistry Program are to:

1. Train students through demonstration, mentoring and personal experience to gain knowledge and develop chemical skills necessary to conduct scientific research.
2. Impart students with contemporary laboratory techniques and skills required to conduct scientific investigations.
3. Provide students with the academic curricula necessary to develop a strong understanding and knowledge of chemical theory and practice.
4. Expose teacher candidates in Chemistry from diverse cultural backgrounds to the breadth and depth of content knowledge in Chemistry and related sciences necessary for fulfilling requirements of teaching careers in diverse cultural settings.
5. Train future teachers in Chemistry who will be competent in the application of modern technological advances in innovative ways of thinking and approaching critical issues related to both science and education.
6. Provide future teachers the opportunity to acquire mastery of skills through constant reflection of their teaching and techniques that are used to obtain, analyze, and interpret scientific information.
7. Provide development opportunities to faculty to accomplish the objectives above.

COMMON REQUIRED COURSES

CHEM 111	CHEM 211	CHEM 311
CHEM 113	CHEM 213	CHEM 401
CHEM 112	CHEM 212	CHEM 497/497M
CHEM 114	CHEM 214	CHEM 499

CAREER OPPORTUNITIES

Students graduating with a Bachelor's of Science in Chemistry will be employable in chemical related fields. They may opt to apply for admission to medical or other health professional schools such as Pharmacy, Physician Assistant or Physical Therapy School. These students are also eligible to apply for admission to graduate school. Students who choose not to pursue a terminal degree can work in industry as chemists for biotechnology, pharmaceutical or environmental management companies. Graduates can also work for government agencies such as NSF (National Science Foundation), NIH (National Institutes of Health), FDA (Food and Drug Administration), EPA (Environmental Protection Agency), NIST (National Institute of Standards and Technology), NOAA (National Oceanic and Atmospheric Administration), FBI (Federal Bureau of Investigation), and CIA (Central Intelligence Agency). Websites which describe careers in chemistry include: The ACS website www.ACS.org, <http://chemistry.about.com/cs/5/f/blcareers.htm>, and <http://www.chemistryguide.org/jobs-in-chemistry.html>. The students should look at the sites for each of companies listed above.

¹ACS Certification - The Chemistry Program received approval from the American Chemical Society (ACS) to grant ACS certified degrees in 2003.

REQUIRED MAJOR COURSES

CHEM 111	CHEM 211	CHEM 311	CHEM 401
CHEM 113	CHEM 213	CHEM 312	CHEM 402
CHEM 112	CHEM 212	CHEM 341	CHEM 420
CHEM 114	CHEM 214	CHEM 343	CHEM 421
			CHEM 497/497M
			CHEM 498
			CHEM 499

**CURRICULUM GUIDE FOR CHEMISTRY - NON-TEACHING
ACS CERTIFICATION**

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 111	3	BIOL 112	3
BIOL 113	1	BIOL 114	1
CHEM 111	3	CHEM 112	3
CHEM 113	1	CHEM 114	1
DNSC 100	1	ENGL 102	3
ENGL 101	3	ENGL 001	0
MATH 110	<u>3</u>	MATH 112	<u>4</u>
	15		15

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CHEM 211	3	CHEM 212	3
CHEM 213	1	CHEM 214	1
GEN ED CURR AREA I ¹	3	GEN ED CURR AREA I ¹	3
PHYS 161 <i>and</i> PHYS 163 <i>or</i>		PHYS 262 <i>and</i> PHYS 264 <i>or</i>	
PHYS 181H <i>and</i>	3	PHYS 182H <i>and</i>	3
PHYS 183H	1	PHYS 184H	1
MATH 211	<u>4</u>	ENGL 203	<u>3</u>
	15		14

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CHEM 311	4	CHEM 312	4
CHEM 341	3	CHEM 497	1
CHEM 343	1	CHEM 498	3
ENGL 305 <i>or</i>		CHEM Elective	3
ENGL 310	3	CSDP 121 <i>or</i>	
GEN ED CURR AREA II	<u>3</u>	BUED 212 <i>or</i>	3
	14	CSDP 220 ²	4
		GEN ED CURR AREA II	<u>3</u>
			18

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
DNSC 400	1	Elective with Lab Component ³	4
CHEM 401	4	CHEM 402	4
CHEM 420	4	CHEM 499	4
CHEM 421	4	FREE Elective	<u>2</u>
EDHE 111	<u>3</u>		14
	16		

Total Credit Hours: 120

¹Two semesters of foreign language are required to fulfill general education requirement.

²CSDP 220 may be substituted with either CSDP 121 or BUED 212, three credits each, and make up one credit somewhere else.

³Elective with Lab Component must be in the area of Chemistry.

**CHEMISTRY HONORS- NON-TEACHING
ACS CERTIFICATION¹
PRE-MEDICINE/PRE-DENTISTRY**

DEPARTMENTAL REQUIREMENTS

Students must complete a total of 120 credit hours of University courses to obtain an ACS-certified chemistry degree. This includes 48-49 semester hours of program core courses, 18-19 hours of supportive courses, 7-8 hours of program electives courses, 43 hours of general education courses, and 3 hours of free electives courses from the approved lists of requirements as outlined in the catalog. The students must also follow ACS guidelines for CHEM 499 (undergraduate research). This includes a research project conducted at UMES and a comprehensive research report. The report should be written to meet the ACS requirement as outlined in the ACS document "Guidelines for Preparing a Research Report." For more information, please refer to the ACS website, www.ACS.org.

OBJECTIVES

The objectives of the Chemistry Honors/PreMedicine/PreDentistry Program are to prepare academically talented students to enter graduate and professional schools with the intention of obtaining terminal degrees (such as PhD, MD, PharmD, DVM, DOM, DDS). With the accelerated curricula including advanced techniques, we:

1. Train students through demonstration, mentoring and personal experience to gain knowledge and develop chemical skills necessary to conduct scientific research.
2. Impart students with contemporary laboratory techniques and skills required to conduct scientific investigations.
3. Provide students with the academic curricula necessary to develop a strong understanding and knowledge of chemical theory and practice.

COMMON REQUIRED COURSES²

CHEM 111H	CHEM 211H	CHEM 341H	CHEM 497H/497M
CHEM 113H	CHEM 213H	CHEM 401	CHEM 499
CHEM 112H	CHEM 212H		
CHEM 114H	CHEM 214H		

REQUIRED MAJOR COURSES

CHEM 111H	CHEM 211H	CHEM 311	CHEM 401
CHEM 113H	CHEM 213H	CHEM 312	CHEM 402
CHEM 112H	CHEM 212H	CHEM 341H	CHEM 420
CHEM 114H	CHEM 213J	CHEM 343H	CHEM 421
			CHEM 497H/497M
			CHEM 499

CAREER OPPORTUNITIES

Students graduating with an Honors Non-Teaching Degree, ACS-certified, will be trained for leadership roles in Chemistry or Chemistry related fields. They may opt to apply for admission to medical or other health professional schools such as Pharmacy, Physician Assistant or Physical Therapy School, and/or graduate school. Students can work in industry as chemists for biotechnology, pharmaceutical or environmental management companies. Graduates can also work for government agencies such as NSF (National Science Foundation), NIH (National Institutes of Health), FDA (Food and Drug Administration), EPA (Environmental Protection Agency), NIST (National Institute of Standards and Technology), NOAA (National Oceanic and Atmospheric Administration), FBI (Federal Bureau of Investigation), and CIA (Central Intelligence Agency). Websites which describe careers in chemistry include: The ACS website www.ACS.org, <http://chemistry.about.com/cs/5/f/blcareers.htm>, and <http://www.chemistryguide.org/jobs-in-chemistry.html>. The students should look at the sites for each of companies listed above.

Students in the Pre-Medicine/Pre-Dentistry program are recommended to take the Medical College Admission Test (MCAT) during the Fall Semester of the academic year preceding the year in which admission to medical school is sought. It is highly recommended that the student enroll in a preparatory class prior to the Fall semester to which they have registered to take the exam. Students should be aware of the submission deadlines and it is recommended that applications to medical school(s) be made no later than the fall of the senior year. Genetics, Cell Biology, Comparative Vertebrate Anatomy, Histology and Microbiology are strongly recommended.

¹ACS Certification - The Chemistry Program received approval from the American Chemical Society (ACS) to grant ACS certified degrees in 2003.

²Students should take Honors courses when offered. Both Lecture and Lab must be taken.

**CURRICULUM GUIDE FOR CHEMISTRY HONORS¹
NON-TEACHING - ACS CERTIFICATION**

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 111H	3	BIOL 112H	3
BIOL 113H	1	BIOL 114H	1
CHEM 111H	3	CHEM 112H	3
CHEM 113H	1	CHEM 114H	1
DNSC 100	1	ENGL 102H	3
ENGL 101H	3	ENGL 001	0
MATH 111H	<u>4</u>	MATH 112	<u>4</u>
	16		15

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CHEM 211H	3	CHEM 212H	3
CHEM 213H	1	CHEM 214H	1
GEN ED CURR AREA I	3	GEN ED CURR AREA I	3
MATH 211	4	CSDP 220 or	4
PHYS 181H	3	BUED 212 ²	3
PHYS 183H	<u>1</u>	PHYS 182H	3
	15	PHYS 184H	<u>1</u>
			15

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CHEM 311	4	CHEM 312	4
CHEM 341H	3	CHEM 497H	1
CHEM 343H	1	CHEM 498H	3
ENGL 203	3	CHEM Elective	3
GEN ED CURR AREA II	<u>3</u>	ENGL 305H or	
	14	ENGL 310H	3
		FREE Elective	<u>1</u>
			15

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CHEM 421	4	GEN ED CURR AREA II	3
CHEM 420	4	Elective with Lab Component ³	4
CHEM 401	4	CHEM 402	4
DNSC 400	1	CHEM 499H	<u>3</u>
EDHE 111	<u>3</u>		14
	16		

Total Credit Hours: 120

¹Students in the Honors/Pre-Medicine/Pre-Dentistry program are to enroll in all sections designated "H".

²CSDP 220 may be substituted for BUED 212, three credits, and make up one credit somewhere else.

³Elective with Lab Component must be in the area of Chemistry.

CHEMISTRY NON-TEACHING WITHOUT ACS CERTIFICATION

DEPARTMENTAL REQUIREMENTS

Students must complete a minimum of 120 credit hours which include 52 semester hours of program core courses, 15 (16) hours of supportive courses, 7-8 hours of program electives courses, 43 hours of general education courses and 2 hours of free electives courses from the approved lists of requirements as outlined in the catalog. Students are not required to follow the ACS course guidelines since the degree is non-ACS certified.

OBJECTIVES

The objectives of the Chemistry Program are to:

1. Train students through demonstration, mentoring and personal experience to develop chemical skills and to conduct scientific research.
2. Impact students with contemporary laboratory techniques and skills required to conduct scientific investigations.
3. Provide students with the academic curricula necessary to develop a strong understanding and knowledge of chemical theory and practice.

COMMON REQUIRED COURSES

CHEM 111	CHEM 211	CHEM 311	CHEM 401
CHEM 113	CHEM 213		CHEM 497/497M
CHEM 112	CHEM 212		CHEM 499
CHEM 114	CHEM 214		

**CURRICULUM GUIDE FOR CHEMISTRY - NON-TEACHING
WITHOUT ACS Certification**

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 111	3	BIOL 112	3
BIOL 113	1	BIOL 114	1
CHEM 111	3	CHEM 112	3
CHEM 113	1	CHEM 114	1
DNSC 100	1	ENGL 102	3
ENGL 101	3	ENGL 001	0
MATH 110	<u>3</u>	MATH 112	<u>4</u>
	15		15

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Sophomore Semester</i>	<i>Credit</i>
CHEM 211	3	CHEM 212	3
CHEM 213	1	CHEM 214	1
GEN ED CURR AREA I ¹	3	GEN ED CURR AREA I ¹	3
PHYS 121	3	PHYS 122	3
PHYS 123	1	PHYS 124	1
MATH 211	<u>4</u>	ENGL 203	<u>3</u>
	15		14

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Sophomore Year</i>	<i>Credit</i>
CHEM 311	4	CHEM 312	4
CHEM 341	3	CHEM 497	1
CHEM 343	1	CHEM 498	3
ENGL 305 or		CSDP 121 or	
ENGL 310	3	BUED 212 or	3
GEN ED CURR AREA II	<u>3</u>	CSDP 220 ²	4
	14	GEN ED CURR AREA II	<u>3</u>
			17

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CHEM 401	4	Elective with Lab Component ³	4
CHEM 420	4	CHEM 402	4
CHEM 421	4	CHEM 499	4
DNSC 400	1	EDHE 111	<u>3</u>
FREE Elective	<u>1</u>		15
	14		

Total Credit Hours: 120

¹Two semesters of foreign language are required to fulfill general education requirement.

²CSDP 220 may be substituted with either CSDP 121 or BUED 212, three credits each, and make up one credit somewhere else.

³Elective with Lab Component must be in the area of Chemistry.

CHEMISTRY EDUCATION TEACHING

DEPARTMENTAL REQUIREMENTS

Candidates are required to earn no less than a C average in the courses listed below and maintain a minimum GPA of 2.75 in each of the General Education, Core Course, Supportive Course and Professional Education requirement category. Listed below are the clinical¹ and field² experiences required for all professional courses in Chemistry Education. Students will complete 110 hours which include 90 hours of Field Experience and 20 hours of Clinical Experience.

OBJECTIVES

The objectives of the Chemistry Teaching Program are to:

1. Train students through demonstration, mentoring and personal experience to develop chemical skills and to conduct scientific research.
2. Impart students with contemporary laboratory techniques and skills required to conduct scientific investigations.
3. Provide students with the academic curricula necessary to develop a strong understanding and knowledge of chemical theory and practice.
4. Expose teacher candidates in Chemistry from diverse cultural backgrounds to the breadth and depth of content knowledge in Chemistry and related sciences necessary for fulfilling requirements of teaching careers in diverse cultural settings.
5. Train future teachers in Chemistry who will be competent in the application of modern technological advances in innovative ways of thinking and approaching critical issues related to both science and education.
6. Provide future teachers the opportunity to acquire mastery of skills through constant reflection of their teaching and techniques that are used to obtain, analyze, and interpret scientific information.

INTERNSHIPS

EDCI 480/490 Internship -2 consecutive 7-8 week (5 days/week) placement at 2 different sites (Refer to the course description). In EDCI 480/490 (Internship), the teacher candidates in Chemistry have a full semester of student teaching-a middle school experience and a high school experience. Candidates are under the direct supervision of a Science Cooperating Teacher in Chemistry and also supervised by the University Supervisor who also serves as the Teacher Educator (Instructor of Methods and Internship) of Chemistry Education. University supervisor is required to observe and has conference with the candidate and cooperating teacher a minimum of eight times, four times per student teaching placement, with an additional introductory meeting for each placement. Candidates begin by taking one or two classes from their cooperating teacher's schedule of teaching, and gradually picking up more until they have the experience of teaching a full load. The candidates are expected to demonstrate effective teaching skills such as facilitating collaborative group learning, motivating, and encouraging student learning activities, and assessing students' responses. They should design a bulletin board display, prepare appropriate instructional materials, observe teaching, interview school personnel, participate in parent meetings, evaluate student work using multiple assessments, and become involved in the life of the school and the full role of a teacher. Documentation of performance based outcomes, as well as summative evaluative reports are prepared by cooperating teachers, based on their day-to-day experiences with the candidate, and by the university supervisor based on the observational visits and discussions with the candidates and cooperating teachers.

¹**Clinical Experiences** are those experiences which are based on a very specific purpose. They may consist of interviewing a student, teacher, or administrator, observing a meeting or a conference; visiting a school or community resource center; developing a case study; peer teaching; administering a test; or attending a meeting or a conference. Clinical Experiences generally require a limited amount of time in a school or with a student (10 hours). Teacher Candidates are asked to submit a report or a reflective journal that documents the completion of the assignment

²**Field Experiences** always occur in a school setting and consist of 10 to 25 hours of visitation per course. The times vary based on the course requirement. Field Experiences usually require a student to keep a reflective journal which is submitted as part of the final grade.

COMMON REQUIRED COURSES

CHEM 111	CHEM 211	CHEM 311	CHEM 401
CHEM 112	CHEM 212		CHEM 497/497M
CHEM 113	CHEM 213		CHEM 499 ¹
CHEM 114	CHEM 214		

REQUIRED MAJOR COURSES

CLINICAL

PSYC 305	10 hours
PSYC 307	10 hours

FIELD

EDCI 200	10 hours
EDCI 311	10 hours
EDSP 428	10 hours
EDCI 406	15 hours
EDCI 409	15 hours
EDCI 410	15 hours
EDCI 425A	25 hours

CAREER OPPORTUNITIES

Students graduating with the NCATE-certified Chemistry Education (Teaching) Degree with Praxis I and II Licensure can choose to enter a teaching career in secondary education

CURRICULUM GUIDE FOR CHEMISTRY EDUCATION TEACHING

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 111	3	ENGL 102	3
BIOL 113	1	ENGL 001	0
CHEM 111	3	CHEM 112	3
CHEM 113	1	CHEM 114	1
DNSC 100	1	EXSC 111 ¹	3
ENGL 101	3	GEN ED CURR AREA II	3
MATH 110	<u>3</u>	MATH 112	<u>4</u>
	15		17

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CHEM 211	3	CHEM 212	3
CHEM 213	1	CHEM 214	1
CSDP 220 ²	4	GEN ED CURR AREA I	3
EDCI 200	3	PSYC 305	3
EDCI 288 ³	1	PSYC 307	<u>3</u>
MATH 211	<u>4</u>		13
	15		

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CHEM 311	4	CHEM 499	1
CHEM 497	1	EDCI 406	3
EDCI 311	3	ENGL 305 or	
ENGL 203	3	ENGL 310	3
GEN ED CURR AREA I ⁴	<u>3</u>	GEN ED CURR AREA II	3
	14	PHYS 161	3
		PHYS 163	<u>1</u>
			14

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CHEM 401	4	EDCI 400	3
EDCI 425A	3	EDCI 480	6
EDCI 409	3	EDCI 490	<u>6</u>
EDSP 428	3		15
PHYS 262	3		
PHYS 264	<u>1</u>		
	17		

Total Credit Hours: 120

¹EXSC 111 cannot be repeated for credit.

²CSDP 220 may be substituted with either CSDP 121 or BUED 212, three credits each, and make up one credit somewhere else.

³Credit does not count toward graduation.

⁴Two semesters of foreign language are required to fulfill general education requirement.

ENVIRONMENTAL SCIENCES

The Environmental Sciences major has two options Chemistry or Marine Science. The concept of each Option is indicated below.

DEPARTMENTAL REQUIREMENTS

Environmental Sciences majors must complete 120 semester hours: 42 semester hours in general education courses, 29 semester of hours in program core courses, 46 semester hours in program supportive courses and 3 semester hours in electives. Students are required, to take independent study and/or undergraduate research in their junior or senior year. Most faculty are actively involved in research projects with undergraduate students. Students must receive a grade of "C" or better in both lecture and lab component to progress to the next sequence course.

OBJECTIVES

The program in Environmental Sciences has been developed to:

1. Create in the student abilities of critical and reflective thought relating to the many aspects of environmental concerns.
2. Train students to use the interdisciplinary approach involving the areas of Biology, Chemistry, Physics, Computer Sciences and Economics.
3. Provide students with the academic curricula necessary to develop a strong understanding and knowledge of the environment.
4. Impart students with laboratory techniques and skills required to conduct scientific investigation.
5. Train students, through example, mentoring and personal experience, to develop chemical, biological, physical and social skills to conduct environmental research.

CAREER OPPORTUNITIES

A degree in Environmental Sciences prepares students for employment in newly evolving and conventional scientific fields related to Environmental Sciences or to pursue graduate and professional degrees. Graduates are employed as Water Treatment Plant Managers, Air Pollution Supervisors, Marine Biologists, Energy & Environment Specialists, Environmental Chemists/Biologists, Oceanographers, Soil Conservationists and Fisheries Scientists.

COMMON REQUIRED COURSES¹ - CHEMISTRY OPTION

CHEM 311	CHEM488A	DNSC 400	ENVS 221
CHEM 312	CHEM 489		ENVS 222
			ENVS 403
			ENVS 405
			ENVS 460
			ENVS 497
			ENVS 498
			ENVS 499

¹Students must receive a grade of "C" or better in both lecture and lab component to progress to the next sequence course.

CURRICULUM GUIDE FOR ENVIRONMENTAL SCIENCES CHEMISTRY OPTION

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 101	3	ENGL 102	3
MATH 110	3	ENGL 001	0
CHEM 111	3	MATH 112	4
CHEM 113	1	CHEM 112	3
BIOL 111	3	CHEM 114	1
BIOL 113	1	BIOL 112	3
DNSC 100	<u>1</u>	BIOL 114	1
	15	EDHE 111	<u>3</u>
			18

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CHEM 211	3	CHEM 212	3
CHEM 213	1	CHEM 214	1
CSDP 220	4	MATH 210	3
ECON 201	3	ECON 202	3
PHYS 121 <i>and</i>		ENGL 203	3
PHYS 123 <i>or</i>		PHYS 122 <i>and</i>	
PHYS 181H <i>and</i>	3	PHYS 124 <i>or</i>	
PHYS 183H	<u>1</u>	PHYS 182H <i>and</i>	3
	15	PHYS 184H	<u>1</u>
			17

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 301	3	ENGL 305 <i>or</i>	
BIOL 303	1	ENGL 310	3
CHEM 311	4	ENVS 221	3
CHEM 341	3	ENVS 222	1
CHEM 343	<u>1</u>	CHEM 312	3
	12	Elective ¹	<u>3</u>
			13

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
DNSC 400	1	CHEM 488A	3
ENVS 403	3	CHEM 489	1
ENVS 405	1	ENVS 498 <i>or</i>	
ENVS 497	1	ENVS 499	3
Elective ¹	3	GEN ED CURR AREA I	3
ENVS 498 <i>or</i>		ENVS 460	<u>3</u>
ENVS 499	2		13
GEN ED CURR AREA I	<u>3</u>		
	14		

Total Credit Hours: 120

¹Students must choose a Program Elective

COMMON REQUIRED COURSES - MARINE SCIENCE OPTION¹

BIOL 201	DNSC 400	ENVS 202	ENVS 403
BIOL 202		ENVS 204	ENVS 405
BIOL 203		ENVS 221	ENVS460
BIOL 301		ENVS 222	ENVS 497
BIOL 402			ENVS 499 <i>and/or</i>
			ENVS 499

¹Students must receive a grade of “C” or better in both lecture and lab components of core and program electives to progress to the next sequence course.

CURRICULUM GUIDE FOR MARINE SCIENCE OPTION

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 111	3	BIOL 112	3
BIOL 113	1	BIOL 114	1
CHEM 111	3	CHEM 112	3
CHEM 113	1	CHEM 114	1
DNSC 100	1	ENGL 102	3
ENGL 101	3	ENGL 001	0
MATH 110	<u>3</u>	MATH 112	<u>4</u>
	15		15

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 202	3	CHEM 212	3
BIOL 203	1	CHEM 214	1
CHEM 211	3	BIOL 201	4
CHEM 213	1	BIOL 301	3
ENVS 202	3	BIOL 303	1
ENVS 204	1	EDHE 111	<u>3</u>
GEN ED CURR AREA I	<u>3</u>		15
	15		

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
PHYS 121	3	PHYS 122	3
PHYS 123	1	PHYS 124	1
ENVS 221	3	GEN ED CURR AREA II	3
ENVS 222	1	ENGL 305 or	
CSDP 220	4	ENGL 310	3
ENGL 203	<u>3</u>	ENVS 498 or	
	15	ENVS 499	3
		MATH 210	<u>3</u>
			16

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
DNSC 400	1	ENVS 460	3
BIOL 402	4	Elective ¹	3
ENVS 403	3	Elective ¹	4
ENVS 405	1	ENVS 498 or	
ENVS 497	1	ENVS 499	<u>3</u>
GEN ED CURR AREA I	3		13
GEN ED CURR AREA II	<u>3</u>		
	16		

Total Credit Hours: 120

¹Students must select a Program Elective.

DUAL DEGREE PROGRAM
ENVIRONMENTAL SCIENCE - MARINE SCIENCES OPTION

Students enrolled at Salisbury University in the Biology Program may earn a degree in Environmental Sciences from UMES by taking 30 hours of prescribed coursework in Environmental Science at UMES. The required courses are listed below. Students are also required to take seven (7) hours of approved courses at SU.

COMMON REQUIRED COURSES

BIOL 201	DNSC 400	ENVS 202	ENVS 403
BIOL 202		ENVS 204	ENVS 405
		ENVS 221	ENVS 460
		ENVS 222	Electives ¹

**COMBINED B.S.¹/M.S.² PROGRAM
ENVIRONMENTAL SCIENCES**

The combined four-year/five-year B.S./M.S. degree program offers two options: Environmental Chemistry and Marine Sciences. The for the two options are administered under the auspices of the undergraduate Environmental Science and the graduate Marine-Estuarine-Environmental Science (MEES) programs. The student receives the B.S. and M.S. degrees after completing the requirements for the two programs. A student wishing to pursue the 5-year M.S. program must make a formal application to the MEES program in the first semester of the Junior year. Students must take the GRE (General Test) during their junior year.

ENVIRONMENTAL CHEMISTRY OPTION

This program is designed to enable students to earn both the B.S. and M.S. degrees in five years. The curriculum is more advanced in the traditional B.S. degree program, and students become involved in directed research earlier. The curriculum for the two degrees is administered under the auspices of the undergraduate Environmental Science and the graduate Marine-Estuarine-Environmental-Science (MEES) programs. Two tracks are available, Environmental Chemistry and the Marine Science. The Environmental Chemistry track provides students with training in environmental contamination and toxicology, air and water pollution, waste treatment and disposal, and energy resources.

Students in the first two years of the program take courses to satisfy the General Education requirements, along with courses in Biology, Chemistry, Math, & Computer Sciences, and Physics. The Junior year provides training in topics specific to the field and prepares students who seek to pursue the M.S. program with prerequisites for the graduate level courses.

During the fourth year, additional courses providing advanced training in pollution and energy are offered. Majors who choose the B.S. program will graduate at the end of the fourth year with the requisite 120 credits. The 12-month period (5th year) subsequent to satisfying requirements for the B.S. degree are spent completing the M.S. requirements, including research work during the summer. For additional information, contact Chairman, Department of Natural Sciences or Director, B.S./M.S. Program in Environmental Chemistry.

DEPARTMENTAL REQUIREMENTS

Students enrolled in the Environmental Chemistry option must complete 120 semester hours of undergraduate courses and 30 semester hours graduate courses for their degrees: 42 semester hours in general education courses, 29 semester hours in undergraduate program core courses, 11 semester hours of program electives and 45 semester hours of supportive courses. To receive the M.S. degree, students must satisfy degree requirements which include a total of 30 course credits: course work (24 credits) and Master's Thesis research (6 credits).

COMMON REQUIRED COURSES

A. Undergraduate¹

CHEM 311	ENVS 221	DNSC 400
CHEM 312	ENVS 222	ENVS 603
CHEM 488A	ENVS 497	ENVS 605
CHEM 489	ENVS 498 <i>and/or</i>	ENVS 660
	ENVS 499	

B. Graduate²

MEES 608A

¹Course Requirements for completion of the B.S. Degree

²Course Requirements for completion of the M.S. Degree

CURRICULUM GUIDE B.S./M.S. ENVIRONMENTAL CHEMISTRY OPTION

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 111	3	BIOL 112	3
BIOL 113	1	BIOL 114	1
CHEM 111	3	CHEM 112	3
CHEM 113 ¹	1	CHEM 114	1
DNSC 100	1	EDHE 111	3
ENGL 101	3	ENGL 102	3
MATH 110	<u>3</u>	ENGL 001	0
	15	MATH 112	<u>4</u>
			18

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CHEM 211	3	CHEM 212	3
CHEM 213	1	CHEM 214	1
PHYS 121		ENGL 305 or	
PHYS 123 or		ENGL 310	3
PHYS 181H	3	MATH 210	3
PHYS 184H	1	PHYS 122 <i>and</i>	
MATH 211	4	PHYS 124 or	
CSDP 220 or	4	PHYS 182H <i>and</i>	
BUED 211	<u>3</u>	PHYS 184	<u>4</u>
	15		14

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ECON 201	3	ENGL 203	3
CHEM 311	4	ECON 202	3
BIOL 301	3	ENVS 221	3
BIOL 303	1	ENVS 222	1
GEN ED CURR AREA I	3	CHEM 312	4
ENVS 498 or		GEN ED CURR AREA I	<u>3</u>
ENVS 499	<u>3</u>		17
	17		

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CHEM 341	3	ENVS 660	4
CHEM 343	1	ENVS 498 or	
CHEM 621	4	ENVS 499	3
DNSC 400	1	GEN ED CURR AREA II ¹	3
ENVS 497	1	Program Elective	<u>3</u>
ENVS 603	3		13
ENVS 605	<u>1</u>		
	14		

¹CSDP 220 may be substituted with either CSDP 121 or BUED 212, three credits each, and make up one credit somewhere else.

SUMMER SESSION

<i>First Semester</i>	<i>Credit</i>
MEES Elective	$\frac{4}{4}$

FIFTH YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
MEES Elective	4	MEES Elective	7
MATH 410 or		MEES 799	3
CSDP 604	3	ENVS 684	3
Program Elective	$\frac{3}{10}$	MEES 608	$\frac{1}{14}$

Total Credit Hours: 150

COMBINED B.S./M.S.

ENVIRONMENTAL SCIENCE - MARINE SCIENCE OPTION

Students who successfully complete this program receive a B.S. degree in Environmental Science (Marine Science Option) and an M.S. degree in Marine-Estuarine-Environmental-Science (MEES). Students are able to attain these degrees in five years by substituting MEES graduate courses for free electives, and by taking courses and conducting research during summers. Only nine credit hours are allowed to overlap and be credited towards both the BS and MS degrees. Students wishing to pursue the M.S. option must formally apply to the MEES program in the first semester of their junior year. If accepted, they may attend a summer-in-residence program at the Horn Point Environmental Laboratories in the summer following their junior year to begin directed research and take a graduate level course. In their senior year, students complete their B.S. degree requirements by taking upper level undergraduate courses and also graduate level courses towards their M.S. degree. Students have the option of being in residence at UMES or at a participating CEES campus during their senior and fifth years.

DEPARTMENTAL REQUIREMENTS

To receive the M.S. degree, students must satisfy degree requirements which include a total of 30 course credits: course work (24 credits) and Master's Thesis research (6 credits). Students must complete a total of 120 semester hours university undergraduate courses and 33 semester hours university graduate courses: 42 semester hours in general education courses, 40 semester hours in undergraduate program core courses, 38 semester hours in courses which have supportive courses and 9 semester hours in program elective courses. Students must receive a grade of "C" or better in both lecture and lab component to progress to the next sequence course.

COMMON REQUIRED COURSES

BIOL 201	ENVS 202	DNSC 400	ENVS 660
BIOL 202	ENVS 204		ENVS 603
BIOL 203	ENVS 221		MEES 608
BIOL 301	ENVS 222		
BIOL 303	ENVS 498 <i>and/or</i>		
BIOL 402	ENVS 499		

Students must choose an Area of Specialization (AOS) in the MEES Program: Ecology, Environmental Chemistry, Environmental Molecular Biology/Biotechnology, Oceanography, Fisheries Science, or Environmental Science. UMES has its greatest strengths in Ecology and Environmental Chemistry. Students must meet the requirements of their AOS. Specific information can be found in the MEES Student Guide or from the MEES Office.

AREA OF SPECIALIZATION

	<u>Ecology¹</u>	
BIOL 600	BIOL 681	ENVS 660
BIOL 601	BIOL 683	
BIOL 633	BIOL 688A	
ENVS 660	BIOL 688B	

	<u>Environmental Chemistry²</u>	
CHEM 621	ENVS 603	ENVS 660
CHEM 670	ENVS 603	ENVS 684
CHEM 632	ENVS 605	
	ENVS 639	
	ENVS 641	

Thesis Research

**CURRICULUM GUIDE FOR B.S./M.S. ENVIRONMENTAL SCIENCE
MARINE SCIENCE OPTION**

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 111	3	BIOL 112	3
BIOL 113	1	BIOL 114	1
CHEM 111	3	CHEM 112	3
CHEM 113	1	CHEM 114	1
DNSC 100	1	EXSC 111 ¹	3
ENGL 101	3	ENGL 102	3
MATH 110	<u>3</u>	ENGL 001	0
	15	MATH 112	<u>4</u>
			18

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CHEM 211	3	BIOL 201	4
CHEM 213	1	CHEM 212	3
ENGL 203	3	CHEM 214	1
ENVS 202	3	ENGL 305	3
ENVS 204	1	CSDP 220 ² or	4
MATH 211	<u>4</u>	BUED 211	3
	15	GEN ED CURR AREA I	<u>3</u>
			17

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 202	3	BIOL 301	3
BIOL 203	1	BIOL 303	1
BIOL 402	4	ENVS 221	3
ENVS 498 or		ENVS 222	1
ENVS 499	3	MATH 210	3
PHYS 121	3	PHYS 122	3
PHYS 123	1	PHYS 124	1
GEN ED CURR AREA II	<u>3</u>	GEN ED CURR AREA II	<u>3</u>
	18		18

SUMMER I

	<i>Credit</i>
ENVS 498 or	
ENVS 499	<u>4</u>
	4

¹EXSC 111 cannot be repeated for credit.

²CSDP 220 may be substituted with BUED 211, three credits, and make up one credit in another area.

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
DNSC 400	1	CSDP 604	3
ENVS 403/603	3	MEES 608	1
ENVS 405/605	1	ENVS 660	3
ENVS 497	1	Program Elective	3
Program Elective	3	GEN ED CURR AREA I	<u>3</u>
Program Elective	3		13
MEES Elective	<u>4</u>		
	16		

MASTER'S YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
MEES 608	1	MEES 799	3
MEES 799	3	MEES Elective	<u>3</u>
MEES Elective	<u>3</u>		6
	7		

Total Credit Hours: 150

PRE-PHARMACY

DEPARTMENTAL REQUIREMENTS

Pre-Pharmacy students must complete 73 semester hours of courses with a grade of "C" or better, which include a minimum of 20 hours of biology and chemistry at the 200 level or above and 8 hours of physics courses.

OBJECTIVES

The objectives of the pre pharmacy program are to:

1. Provide the prerequisite courses for admission into the pharmacy program; and,
2. Prepare students interested in the pharmacy program for the courses they will encounter in the PharmD curriculum.

CAREER OPPORTUNITIES

A PharmD degree prepares students to work in chain drug stores, corporate community setting such as a hospital pharmacy, an independent pharmacist in their own business, pharmaceutical industry, conduct research and educational institutions.

CURRICULUM FOR PRE-PHARMACY PRE-PROFESSIONAL PROGRAM

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CHEM 111	3	CHEM 112	3
CHEM 113	1	CHEM 114	1
BIOL 111	3	BIOL 112	3
BIOL 113	1	BIOL 114	1
DNSC 100	1	ENGL 102	3
ENGL 101	3	ENGL 001	0
HIST 201	3	MUSI 101	3
MATH 110	<u>3</u>	MATH 112	<u>4</u>
	18		18

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CHEM 211	3	CHEM 212	3
CHEM 213	1	CHEM 214	1
BIOL 231	3	BIOL 232	3
BIOL 233	1	BIOL 234	1
PHYS 121	3	PHYS 122	3
PHYS 123	1	PHYS 124	1
PSYC 200	3	BIOL 301	3
SOCI 101	<u>3</u>	BIOL 303	1
	18	ENGL 203	<u>3</u>
			19

Total Credit Hours: 73

MINOR PROGRAMS

BIOLOGY

The Minor Program in Biology is designed to provide supportive instruction for biology and mathematics majors. Students must complete 20 credit hours for a minor. Courses in Biology that are used to satisfy requirements for science majors may not count towards the minor curriculum. In addition to the curriculum for Non-Science majors, students must select any three (3) additional courses from the Biology Program Electives.

BIOL 111	BIOL 112	Program Electives ¹
BIOL 113	BIOL 114	

CHEMISTRY

The Minor Program in Chemistry is designed to provide supportive instruction for biology and mathematics majors. Students must complete 20 credit hours for a minor. Chemistry courses used to satisfy requirements for science majors may not be used for the Minor curriculum. Courses for a Minor in Chemistry for Non-Science majors include:

CHEM 111	CHEM 211	CHEM ¹
CHEM 112	CHEM 212	
CHEM 113	CHEM 213	
CHEM 114	CHEM 214	

ENVIRONMENTAL SCIENCES

The Minor program in Environmental Sciences is designed to provide supportive instruction for Biology, Chemistry and Physics. Courses that are used to satisfy requirements for science majors may not count towards the minor curriculum. Students must select three (3) additional courses from the Biology Program Electives for a total of eight (8) credits.

BIOL 402	ENVS 202	ENVS 221
	ENVS 204	ENVS 222
Program Elective ³		

PHYSICS

The Minor program in Physics is designed to provide supportive instruction for Biology, Chemistry, Environmental Science, Mathematics and Computer Science majors. The program also provides courses for preparing students for secondary school science teaching. Courses in Physics that are used to satisfy requirements for science majors may not be used for minor curriculum. Students must select any other physics courses above the 200 level (PHYS 498, 499 are recommended) for a total of two (2) credits. Courses for minor in physics include:

PHYS 161/181H	PHYS 262/182H	PHYS 283
PHYS 163/183H	PHYS 264/184H	PHYS 423
	PHYS 263	PHYS ⁴
	PHYS 265	

¹Student must select three courses to satisfy this requirement for a total of twelve (12) credits.

²Select one additional course at or above 300 level in Chemistry.

³Student must select three additional courses from the Biology Program Electives for a total of eight (8) credits.

⁴Student may select any other courses above the 200 level to satisfy this course for a total of two (2) credits.

COURSE DESCRIPTION IN BIOLOGY¹

BIOL 101 Theories and Applications of Biological Sciences/Online Credit 3
This course provides an introduction to Biological principles as they apply to our daily lives. The course is designed to partially meet general education requirements in the Natural Sciences. Consideration is given to organisms, their components and activities. Emphasis is on the development and use of knowledge, skills and attitudes expected to be of value in future decision-making as it relates to Biology, our present environmental conditions, and problems facing each of us today. This course is comprised of three hours lecture per week.

BIOL 103 Biological Science Laboratory Credit 3
This course emphasizes student involvement in investigations related to Biology. Emphasis is placed on the scientific method, biological molecules, cellular respiration and dissection. Laboratory is designed to partially meet general education requirements in Natural Sciences. Prerequisite: One year of high school biology. The laboratory fee is \$25.

BIOL 111 Principles of Biology I/ Honors Credit 3
This course is an introduction to the basic concepts of biology, with emphasis on molecular, cellular and genetic concepts related to living organisms. Basic concepts are considered, and major topics deal with (1) organization of cells and the molecular basis of life, (2) energetics and metabolism, (3) cell growth and reproduction, and (4) genetics. This course is for Natural Sciences majors and others in the related sciences. Co-requisite: BIOL 113/113H. This course is comprised of three hours per week and one-hour discussion for the Honors section only.

BIOL 112 Principles of Biology II/ Honors Credit 3
This course is an introduction to the basic concepts of biology with emphasis on structure and function, focusing on adaptations of plants and animals. Representative animal systems are discussed and contrasted with representative plant systems. Included in the course is the study of the animal physiology and plant physiology. Prerequisites: BIOL 111/111H (grade of C or better). This course is comprised of three hours of lecture per week.

BIOL 113 Principles of Biology I Lab/Honors Credit 1
This laboratory course is designed to accompany BIOL 111/111H and to reinforce the basic biological concepts of cellular biology, molecular biology, and Mendelian and molecular genetics discussed in the corresponding lecture. Supervised laboratory sessions enhance the student's skills in experimental manipulation, data collection, data interpretation and analysis, and data presentation in an effort to stimulate logical thinking and scientific reasoning. Co-requisites: BIOL 111/111H (grade of C or better). The laboratory fee associated with this course is \$25.00.

BIOL 114 Principles of Biology II Lab/Honors Credit 1
This laboratory course is designed to accompany BIOL 112/112H. Laboratory gives consideration to biological concepts related to the physiological mechanisms of living organisms both plants and animals. Selected systems are studied in a functional perspective. Emphasis is placed on experimental manipulation, data collection, data interpretation and analysis, and data presentation. Co-requisites: BIOL 112/112H (grade of C or higher). The laboratory fee associated with this course is \$25.00.

BIOL 201 Marine Zoology Credit 4
This course is a study of the nature of life in the sea, adaptations, patterns of distribution and production of plankton, nekton and benthos, and their interrelationships. The course is comprised of two hours of lecture and a three-hour laboratory per week. Prerequisite: BIOL 111/111H. Laboratory Fee: \$25.00

BIOL 202 Marine Botany Credit 3
This course is designed for both environmental science and biology majors. The course focuses on the environmental and ecological aspects of marine and estuarine plants and includes discussions of systematics and the ecology of micro and macro algae, marine fungi, and vascular plants. The various aspects of the Chesapeake Bay watershed are discussed. Field trips to various marine environments are conducted during the semester for which attendance is mandatory. Prerequisite for this course includes: BIOL 112/112H (grade of C or higher). Co-requisite: BIOL 203. Students must be enrolled in BIOL 202 and BIOL 203 during the same semester. This course is comprised of three hours of lecture per week.

¹A grade of "C" or better is required in all prerequisite courses (lecture and laboratory) to continue with sequence classes in Biology.

BIOL 203 Marine Botany Laboratory**Credit 1**

This four-hour/week laboratory course is designed to introduce the student to marine plants in the pelagic open-ocean and coastal environments. This class focuses on both phytoplankton and benthic marine plant communities and introduces field and laboratory techniques for research on the biology and ecology of marine plants. These include micro- and macro-algal identification, the determination of algal primary productivity and growth rates, and field sampling techniques in marine plant ecology. A service learning project is required as part of the laboratory grade. Co-requisite: BIOL 202. Students must be enrolled in BIOL 202 and BIOL 203 during the same semester. This course is comprised of four hours of laboratory per week. The laboratory fee associated with this course is \$25.00.

BIOL 211 Principles of Biology III**Credit 3**

This course is an introduction to the principles of Biology with emphasis on biodiversity, evolution, and ecology. The course focuses on (1) biodiversity within five kingdom systems, (2) principles of evolution, and (3) population and community ecology with applications to environmental issues. Principles of Biology I is intended for the Biology major and persons in the related sciences. Prerequisite: BIOL 111/111H (grade of C or higher). The course is comprised of three hours of lecture per week.

BIOL 213 Principles of Biology III Laboratory**Credit 1**

The laboratory activities of this course are related to principles of Biology with emphasis on biodiversity, evolution, and ecology. Topics of discussion include a survey of the five kingdoms, experimental tests of evolution and ecological concepts. This course is intended for the Biology major and persons in the related sciences. Prerequisite: BIOL 111/111H (grade of C or higher). Co-requisite: BIOL 211. This course is comprised of one three-hour laboratory per week. The Laboratory fee associated with this course is \$25.00.

BIOL 222 Genetics**Credit 3**

Basic principles governing transmission of traits from generation to generation in humans are covered in this course. Course material focuses on the structure and functions of DNA, RNA, proteins and chromosomes in eukaryotes, the mode of transmission of genes to the next generation, how genes are damaged and repaired, use of recombinant DNA technology as a treatment option, and the consequences of mutations and chromosomal abnormalities in producing human disorders. Lectures also include discussions on determinations of gene and allele frequencies in populations and how they affect evolution. Prerequisite: BIOL 111/111H (grade of C or higher). This course is comprised of three hours lecture per week.

BIOL 223 Genetics Laboratory**Credit 1**

This course is designed to introduce students to experimental approaches to studying problems in molecular genetics. Upon completion of the course, students should have a working knowledge of how problems pertaining to hereditary disorders are addressed. Students are taught techniques of how to extract DNA and protein, how to analyze these molecules by electrophoresis, spectrophotometry, polymerase chain reaction, and mammalian cell culture. Prerequisites: BIOL 111/111H; and BIOL 113/113H. This course is comprised of three hours of laboratory per week. The laboratory fee associated with this course is \$25.00.

BIOL 231 Human Anatomy and Physiology I**Credit 3**

This course provides an introduction to the structure and function of the human body. Topics included are chemistry and the cell, integument, skeletal, muscular and nervous systems. Prerequisites: BIOL 111/113, BIOL 112/114, BIOL 188) or for allied health program students (grade of C or higher). This course may not be used as a Biology Program Elective for credit toward the Biology major. This course is comprised of three hours of lecture per week.

BIOL 232 Human Anatomy and Physiology II**Credit 3**

This course provides discussion of the respiratory, circulatory, excretory, endocrine, digestive, and reproductive functions of the human body. Pre-requisites: BIOL 231/233. This course may not be used as a Biology Program Elective for credit toward the Biology major. This course is comprised of three hours of laboratory per week.

BIOL 233 Human Anatomy and Physiology Lab I**Credit 1**

This course accompanies BIOL 231 and emphasizes student involvement in investigations related to human anatomy and physiology. The course provides practical experience with subject matter and includes written as well as practical examinations. Prerequisites: Biology 111/113. This course is comprised of two hours of laboratory per week. This course must be taken concurrently with BIOL 231. The laboratory fee associated with this course is \$25.00.

¹A grade of "C" or better is required in all prerequisite courses (lecture and laboratory) to continue with sequence classes in Biology.

BIOL 234 Human Anatomy and Physiology Lab II**Credit 1**

This course complements the BIOL 232 course and emphasizes student involvement in investigations related to human anatomy and physiology. The course is designed to provide practical experience with subject matter and includes written as well as practical examinations. Pre-requisites: BIOL 231 and BIOL 233 or equivalent. Co-requisite: BIOL 232. The laboratory fee associated with this course is \$25.00.

BIOL 261 Invertebrate Zoology**Credit 4**

This course is presented as a survey of invertebrate animals with emphasis on the relationship between structure and function and evolution of major groups. Life history, strategies, and behaviors and are major topics of discussion. Laboratory emphasis is on examination of animals. Pre-requisites: BIOL 111/111H (grade of C or higher) or consent of the instructor. This course is comprised of two hours of lecture and two two-hour laboratories per week. The laboratory fee associated with this course is \$25.00.

BIOL 301 Microbiology**Credit 3**

This course examines the basic life processes of various microscopic organisms and their relevance to humans, focusing on pathogenicity. Discussion also encompasses chemotherapy and the immune response to infection. The course provides an introduction to the study of microorganisms and their diversity, growth, life cycle, physiology and control. The role of microorganisms in diseases, the environment and industry, as well as other economic considerations. Prerequisites: BIOL112/BIOL112H or equivalent (grade of C or better); one year of Chemistry, or permission of the instructor. This course is comprised of three hours of lecture per week.

BIOL 303 Microbiology Laboratory**Credit 1**

This course is designed to expose students to laboratory activities that will acquaint them with procedures for the proper and safe handling of microorganisms to facilitate investigations using microorganisms. Co-requisite: BIOL 301. This course is comprised of two two-hour laboratory sessions per week. The laboratory fee associated with this course is \$25.00.

BIOL 311 Vertebrate Embryology/Honors**Credit 4**

This course provides the student with a study of the development of the vertebrate body as exemplified by early development of pre-chordate, early chordate, amphibians, birds and mammalian embryos. The course offers the student a descriptive study of the normal morphology of the fundamental morphological aspects of development. In addition, to increase the student's understanding of the mechanisms underlying the development of form to function, experimental, molecular, and genetic approaches are studied. Pre-requisites: BIOL 111/111H (grade of C or higher). This course is comprised of three hours of lecture and three hours of laboratory per week. The laboratory fee associated with this course is \$25.00.

BIOL 322 Comparative Vertebrate Anatomy**Credit 4**

This course is a study of the general features of chordate development, and a comparative study of the anatomy of the vertebrate classes. Evolution is the unifying theme. This course serves the need of students intending to pursue careers in medicine, biology, biomedical science and environmental science. Prerequisites for this course include: BIOL 111/111H (grade of C or higher) and BIOL112/112H (grade of C or higher). This course is comprised of two hours of lecture and four hours of laboratory per week. The laboratory fee associated with this course is \$25.00.

BIOL 326 Cell Biology**Credit 3**

Course material of cell biology focuses on understanding the roles of nucleic acids, lipids, proteins and carbohydrates in development and maintenance of eukaryotic organelles and cells. Discussions will target processes in each major organelle including the nucleus, plasma membrane, smoother and rough endoplasmic reticulum, Golgi, lysosomes, cytoplasm, and mitochondria. Students learn how events such as ADP ribosylation, methylation, phosphorylation/dephosphorylation and cleavage of polypeptides influence the activities of proteins and enzymes. Other topics include enzyme kinetics and inhibition, how mutations in DNA are produced and corrected, recombinant DNA technology, cloning, the cell cycle, and cancer. Prerequisites: BIOL 111/111H (grade of C or higher) and BIOL 222 (grade of C or higher). This course is comprised of three hours of lecture per week.

¹A grade of "C" or better is required in all prerequisite courses (lecture and laboratory) to continue with sequence classes in Biology.

BIOL 327 Cell Biology Laboratory**Credit 1**

This course is designed to familiarize students to experimental approaches to studying problems in cell and molecular biology. Upon completion of the course, students should be able to participate in research projects aimed at studying molecular and cellular processes. Students are taught techniques of how to study DNA, RNA, and protein using computer databases and existing software, how to extract these molecules from cells and tissues, analyze them, and utilize them in subsequent studies such as the polymerase chain reaction, restriction enzyme analysis, SDS-PAGE, and Western Blot. Prerequisites: BIOL 111 (grade of C or higher), BIOL 113 (grade of C or higher), BIOL 222 (grade of C or higher), and BIOL 223 (grade of C or higher). The laboratory fee associated with this course is \$25.00.

BIOL 330 Evolution**Credit 3**

This course is an advanced exploration of the evolutionary perspective on Biology, including genetic and ecological aspects of evolutionary processes. Topics of discussion focus on the mechanisms of evolutionary change, adaptation, and the history of living organisms. Examples of evolutionary principles in medicine and environmental science are explored to relate concepts to practical application. Prerequisites: BIOL 111/111H (grade of C or higher), BIOL 211, and BIOL 222. This course is comprised of three hours of lecture per week.

BIOL 335 Biogeography**Credit 3**

Exploration of the environmental factors and historical perspectives that explain distributions of organisms are strongly emphasized in this course. Focus is placed on mechanisms of distribution, environmental constraints and phylogenetic perspectives. Prerequisites: BIOL 111/111H (grade of C or higher); and BIOL 211. This course is comprised of three hours of lecture per week.

BIOL 341 Introductory Physiology**Credit 4**

An examination of the mechanisms involved in control of body functions. Basic chemical and physical principles of animal function will be discussed. Prerequisites: BIOL 111/113, BIOL 112/114, BIOL 211/213 (grade of C or higher), and one year of Chemistry and a course in vertebrate anatomy. Three hours of lecture per week and three laboratory hours per week. The laboratory fee associated with this course is \$25.00.

BIOL 361 Animal Behavior**Credit 4**

This course investigates the concepts and applications of animal behavior, with emphasis on the evolutionary basis of behavior. Topics include both proximate influences on behavior and adaptive perspectives on reproductive and social behavior. The laboratory component of this course includes bench work and fieldwork to illustrate specific concepts. Prerequisites: BIOL 111/111H (grade of C or higher), and BIOL 112/112H (grade of C or higher) and BIOL 211/213 is recommended. This course is comprised of two hours of lecture per week, three hours of laboratory, and one hour of discussion per week. The laboratory fee associated with this course is \$25.00.

BIOL 402 Ecology**Credit 4**

This course is designed to provide the student with a study of the basic interrelations of plants and animals with physical and biotic factors of the environment. Prerequisites: BIOL 111/111H (grade of C or higher), and BIOL 112/112H (grade of C or higher). BIOL 211/213 is recommended. This course is comprised of two hours of lecture, one hour of discussion, and three hours of laboratory per week. The laboratory fee associated with this course is \$25.00.

BIOL 404 Conservation Biology**Credit 3**

This course provides an introduction to the principles of conservation biology. Topics of discussion emphasize the application of ecological principles, management tools, and case history studies related to conservation issues. Prerequisites: BIOL 402 or equivalent.

BIOL 420 Animal Histology**Credit 3**

This course is a study of the microscopic structure of vertebrate tissues and organs. Functional correlates are discussed. Prerequisites: BIOL 111/113, BIOL 112/114, BIOL 211/213 (grade C or better) a course in vertebrate anatomy and consent of the instructor. This course is comprised of three hours of lecture per week.

BIOL 421 Animal Histology Laboratory**Credit 1**

This course is designed to accompany BIOL 420 and provides hands-on experience using the light microscope to examine vertebrate tissues discussed in lecture. Co-requisites for this course is BIOL 420. BIOL 421 must be taken concurrently. The laboratory fee associated with this course is \$25.00.

¹A grade of "C" or better is required in all prerequisite courses (lecture and laboratory) to continue with sequence classes in Biology.

BIOL 426M Biotechnology Credit 4

This course studies the basic principles of biotechnology and its applications to areas such as medicine, agriculture, and the industry. Emphasis is placed on recombinant DNA technology (gene cloning), metabolites of proteins, and animal and plant biotechnology. The weekly three-hour laboratory component of this course exposes students to various laboratory techniques employed in: gene cloning, cultivation components, sterile tissue culture, and study of cell-surface molecules. In addition to the scheduled three-hour component of this course, additional unscheduled time is required to complete assignments. Unscheduled time is dependent on specific techniques employed. This course is reserved primarily for advanced undergraduate students in the MARC Program. Prerequisites: BIOL 222 (grade of C or higher), BIOL 326 and CHEM 342/342H/342M. Co-requisites: CHEM 342/342H/342M. The laboratory fee associated with this course is \$25.00.

BIOL 431 Mammalogy Credit 4

This course provides a detailed investigation of mammalian biology, with emphasis on special physiological and ecological adaptations within the group. Topics of discussion include classification, physiological adaptations, ecological specializations and biogeography of mammals. Prerequisites: BIOL 111/111H (grade of C or higher) and BIOL 211, or permission of the instructor. This course is comprised of three hours of lecture and three hours of laboratory per week. The laboratory fee associated with this course is \$25.00.

BIOL 432 Herpetology Credit 3

This course is a concentrated study of the ecology, behavior, and physiological characteristics of amphibians and reptiles. Topics of discussion include classification, adaptations and diversity of groups within the two vertebrate classes. Prerequisites: BIOL 111/111H (grade of C or higher), and BIOL 112/112H (grade of C or higher). This course is comprised of three hours of lecture per week.

BIOL 436 General Endocrinology Credit 3

This course provides discussions of the importance of hormones in regulating body functions, integrating biological systems, protecting the body against stress and various diseases, and maintaining day-to-day life processes. The course also emphasizes a review of concepts relative to mechanisms of hormone action. Consideration is given to classic endocrine case studies. Prerequisites for this course include: BIOL 111/111H (grade of C or better). A course in Cell Biology is recommended. This course is comprised of three hours of lecture per week.

BIOL 441 Comparative Physiology Credit 4

This course is a study of the major functional adaptations in animal systems providing for maintenance of homeostasis. The function of vertebrate and invertebrate systems is discussed. Prerequisites: BIOL 341, and CHEM 341, or permission of the instructor. This course is comprised of three hours of lecture and three hours of laboratory per week. The laboratory fee associated with this course is \$25.00.

BIOL 462 General Parasitology Credit 4

The identification of parasites common to man and domesticated animals is the primary focus of this course. Epidemiological aspects of zoonotic diseases are discussed. Other subjects to be covered are host habitats, vectors, types of hosts, and transmission methods, life cycles, and control and prevention measures. Prerequisites: BIOL 111/111H (grade of C or higher); and BIOL 112/112H (grade of C or higher); or consent of the instructor. A course in Invertebrate Zoology is recommended. This course is comprised of three hours of lecture and one four-hour laboratory per week. The laboratory fee associated with this course is \$25.00.

BIOL 463 Wildlife Management Credit 4

In this course, students develop an understanding of the theories, principles, and practices associated with wildlife management. Emphasis is placed on research design, sampling techniques, and field methodologies. Students gain theoretical knowledge and applied management techniques to work as professional wildlife biologists in natural resource professions. All terrestrial vertebrate taxonomic groups are addressed, including mammals, birds, amphibians, and reptiles. Graduate students are required to complete one additional research paper approved by the professor. Prerequisites: BIOL 111/111H (grade of C or higher), or permission of the instructor. The laboratory fee associated with this course is \$25.00.

¹A grade of "C" or better is required in all prerequisite courses (lecture and laboratory) to continue with sequence classes in Biology.

BIOL 464 Medical and Veterinary Entomology**Credit 4**

This course provides a study of the arthropod (especially insects) species that are an economically important pest, and vectors of diseases of man and domesticated animals. Epidemiological aspects of zoonotic diseases are discussed. Prerequisites: BIOL 111/111H (grade of C or better), and BIOL112/112H (grade of C or better), or BIOL 261, or consent of the instructor. This course is comprised of three hours lecture and one four-hour laboratory per week. The laboratory fee associated with this course is \$25.00.

BIOL 466 Medical Parasitology**Credit 3**

This course provides students in the biological, agricultural, and medical sciences with the knowledge necessary to know and identify metazoan parasites common to all organisms including man and his domesticated animals. Detailed information on how to recognize and diagnose parasitic diseases, infections, histopathology, and infestations is discussed. Epidemiological aspects of zoonotic diseases are discussed, including detailed information on host habitats, vectors, types of hosts, and transmission. Life cycles, control measures, disease prevention, treatment, and location of parasites in relation to the hosts are considered. Prerequisites: BIOL 111/111H (grade of C or higher). This course is comprised of three hours of lecture per week.

BIOL 497 Biology Seminar/ Honors/MARC**Credit 1**

This course focuses on the discussion of various topics in biology, with the contents varied each semester. Student presentations are required. The BIOL 497M section is reserved for students in the MARC Program. Prerequisite: Senior level classification. This course is comprised of one hour of lecture per week.

BIOL 498 Independent Study**Credit 1-3**

This course focuses on readings of significant publications in selected subjects and discussions with a Biology faculty member. The course is designed to enhance the student's knowledge base of a subject area related to the biological sciences. Credits and hours are by arrangement. Prerequisites: Junior or Senior level classification and permission of the instructor.

BIOL 499 Undergraduate Research**Credit 1-4**

This course is designed for the undergraduate student who has an interest in pursuing a special problem as an independent research project. Credits and hours are by arrangement. Prerequisites: Junior and Senior level classification and permission of instructor.

CHEMISTRY¹**CHEM 101 General Chemistry I/Online****Credit 3**

This course provides an introduction to inorganic chemistry and includes lectures on matter, dimensional analysis, elements (nomenclature, atomic structure, atomic formula and atomic orbital), compounds (nomenclature, molecular bonding, molecular structure, and molecular formulas), molecular conversions, solutions, acids, bases, and gases. This course satisfies General Education Requirements Area III (Biological and Physical Sciences). This course is recommended for the non-science major, pre-health professionals (including pre-nursing students and nutrition majors), agriculture and home economics majors. Note: Students requiring a lab-based course must also register for CHEM 103. Prerequisite or Co-requisite: MATH 101 or equivalent.

CHEM 102 General Chemistry II/Online**Credit 3**

This course provides an introduction to organic and biological chemistry and includes lectures on carbon chemistry, organic nomenclature, basic organic reactions, saccharides, amino acids, proteins, and DNA. This course satisfies General Education Requirements Area III (Biological and Physical Sciences). This course is recommended for the non-science major, pre-health professionals (including nursing students and nutrition majors), agriculture, and home economists majors. Note: Students requiring a lab-based course must also register for CHEM 104. Prerequisite or Co-requisite: CHEM 101 or equivalent.

¹A grade of "C" or better is required in all prerequisite courses (lecture and laboratory) to continue with sequence classes in Biology and Chemistry

CHEM 103¹ General Chemistry Laboratory I Credit 1
This two-hour per week laboratory includes experiments that illustrate the basic principles discussed in General Chemistry I. This course satisfies the laboratory component for General Education Requirements Area III (Biological and Physical Sciences Lab). This course is recommended for the non-science major, pre-health professionals, (including pre-nursing students and nutrition majors), agriculture and home economics majors. Prerequisite or Co-requisite: CHEM 101. Laboratory Fee: \$25.00

CHEM 104 General Chemistry Laboratory II Credit 1
This two-hour per week laboratory includes experiments that illustrate the basic principles discussed in General Chemistry II. This course satisfies the laboratory for General Education Requirements Area III (Biological and Physical Sciences Lab). This course is recommended for the non-science major, pre-health professionals (including nursing students and nutrition majors), agriculture and home economics majors. Pre-requisite or Co-requisite: CHEM 102. Laboratory Fee: \$25.00

CHEM 111 Principles of Chemistry I/ Honors Credit 3
This course deals with the basic concepts in chemistry (the study of the changes in matter and energy). The student learns logical problem-solving skills, including strategies to attack complicated problems by using a step-by-step procedure. The concepts studied in this course include density, basic atomic and molecular theory, chemical nomenclature, reaction stoichiometry, and the gas laws. The course is intended for science majors. Prerequisite: High School Chemistry or CHEM 101. Pre or Co-requisite MATH 109. Co-requisite: CHEM 113/113H or consent of instructor.

CHEM 112 Principles of Chemistry II/ Honors Credit 3
This course explores more advanced topics in chemistry, building on the concepts covered in CHEM 111/111H. The concepts studied in this course will include VSPER theory, intermolecular forces, properties of liquids and solids, chemical kinetics, chemical equilibrium, acid/base chemistry and electrochemistry. The course is intended for science majors. Prerequisite: CHEM 111/113, CHEM 111H/113H. Co-requisite: CHEM 114/CHEM 114 or consent of instructor.

CHEM 113 Principles of Chemistry Lab I/ Honors Credit 1
This course is the laboratory companion to CHEM 111/111H. It is designed to deepen the students' understanding of topics discussed in the lecture, increase their skill with common laboratory equipment, and indoctrinate them in proper chemical safety practices. The students will learn to perform a valid experiment in a safe manner, to observe and record any data acquired, and interpret the data using various equations and graphs. Laboratory skills such as filtration, titration, and the accurate measurement of masses and volumes will be developed. The lab period will be a three-hour session. Prerequisite or Co-requisite CHEM 111/111H or consent of instructor. Laboratory Fee: \$25.00

CHEM 114 Principles of Chemistry Lab II/Honors Credit 1
This course is the laboratory companion to CHEM 112/112H. It is designed to deepen the students' understanding of topics discussed in the lecture, increase their skill with common laboratory equipment, and indoctrinate them in proper chemical safety practices. The students will learn to perform a valid experiment in a safe manner, to observe and record any data acquired, and interpret the data using various equations and graphs. Laboratory skills such as spectroscopic measurement, pH measurement, and qualitative analysis will be developed. The lab period will be a three-hour session. Pre or Co-requisite CHEM 112/112H or consent of instructor. Laboratory Fee: \$25.00

CHEM 211 Fundamentals of Organic I/ Honors Credit 3
Topics presented in this course include molecular structure, isomerism, and stereochemistry. The chemistry of alkanes, alcohols, ethers, alkenes, and aromatic hydrocarbons will also be discussed. Interpretation of spectra of major functional classes will be explained. Three hours of lecture, a one-hour discussion, and one three-hour lab (see below) must be taken concurrently. Prerequisite: The successful completion of CHEM 111/111H and CHEM 112/112H. Pre or Co-requisite: CHEM 213/213H or consent of instructor.

CHEM 213 Fundamentals of Organic Chemistry I Lab/Honors Credit 1
This is the laboratory part of CHEM 211/211H. This course covers the practical application of theory presented in the lecture. Laboratory record keeping, neatness, laboratory notebooks, manipulation of common laboratory glassware, and safe practice and handling of chemicals will be stressed. Analysis of preparations by UV-Vis, FTIR, NMR etc., will be done. Careful recording of laboratory data and its interpretation will be covered. The lab period will be a three-hour session. Pre or Co-requisite: CHEM 211/211H or consent of instructor. Laboratory Fee: \$25.00

¹A grade of "C" or better is required in all prerequisite courses (lecture and laboratory) to continue with sequence classes in Chemistry.

CHEM 212¹ Fundamentals of Organic Chemistry II/Honors Credit 3
This course is a continuation of CHEM 211/211H. Preparation and functional group reactions of carboxylic acids and their derivatives, aldehydes, carbanions, amines, polycyclic and heterocyclic aromatics, and macromolecules will be presented. Three hours of lecture, a one-hour discussion, and a three-hour laboratory (see below) must be taken concurrently. Prerequisite: successful completion of CHEM 211/CHEM 211H. Pre or Co-requisite: CHEM 214/CHEM 214H or consent of instructor.

CHEM 214 Fundamentals of Organic Chemistry Lab II/Honors Credit 1
This course is the laboratory part of CHEM 212/212H. The course is designed to refine the skills of safe practice and effective handling of chemicals and common laboratory equipment presented in CHEM 213. Spectroscopic analysis, laboratory data keeping and interpretation skills acquired in the previous laboratory course will be extended. The lab period will be a three-hour session. Prerequisites: CHEM 211/211H, 213/213H. Co-requisite: CHEM 212/212H or consent of instructor. Laboratory Fee: \$25.00

CHEM 311 Analytical Chemistry I Credit 4
This is a general course in quantitative analysis, including gravimetric, volumetric and instrumental analysis. The emphasis is placed on the understanding of the reaction stoichiometry involved for the various methods. Statistical analysis using spreadsheet programs is also introduced. The course consists of three hours of lecture and one three-hour laboratory period per week. Prerequisites: CHEM 112/112H and CHEM 212/212H or consent of instructor. Laboratory Fee: \$25.00

CHEM 312 Analytical Chemistry II Credit 4
This is a continuation of the quantitative analysis begun in CHEM 311. Analytical methods based on electrochemistry such as potentiometry will be explored. An introduction to some modern analytical techniques and instrumentation is also presented. This introduction includes uv-visible spectroscopy as well as infrared spectroscopy. Separation methods such as gas chromatography and high performance liquid chromatography are also introduced. The course consists of three hours of lecture and one three-hour laboratory per week. Prerequisites: CHEM 311, CHEM 112/112H and CHEM 212/212H or consent of instructor. Laboratory Fee: \$25.00

CHEM 331 Elementary Organic Chemistry Credit 4
This is a short course in the elementary principles of organic chemistry. This course is primarily intended for education, human ecology, and agriculture majors. It is not recommended for chemistry majors. The course consists of three hours lecture and one three-hour laboratory per week. Prerequisites: CHEM 101 and CHEM 102 or consent of instructor. Laboratory Fee: \$25.00

CHEM 332 Biochemistry Credit 4
This course is a survey of the chemical properties of compounds of biological significance, integrated with the study of fundamental metabolic and genetic processes at the molecular level. Three hours lecture and three hours laboratory per week. Prerequisite: CHEM 211 or CHEM 331 or consent of instructor. Laboratory Fee: \$25.00

CHEM 341 Biochemistry I Credit 3
This course is a study of the physical and chemical properties of the four major biomolecules: carbohydrates, lipids, proteins, enzymes, and nucleic acid. The course includes an introduction to intermediary metabolic pathways and their involvement in the generation and use of energy. The student will learn how to incorporate basic chemical principles to the biological function of organisms. This course consists of three hours of lecture per week. Prerequisite: Passing CHEM 211/211H, 212/212H with a letter grade of C or better. Co-requisite: CHEM 343 or consent of instructor.

CHEM 341H Honors Biochemistry Credit 3
This course is more an intense study of the physical and chemical properties of the four major biomolecules: carbohydrates, lipids, proteins, enzymes, and nucleic acid. The course includes an introduction to intermediary metabolic pathways and their involvement in the generation and use of energy. The student will learn how to incorporate basic chemical principles with the biological function of organisms. This course consists of three hours of lecture per week. Prerequisite: passing of CHEM 211/211H, 212/212H with a letter grade of C or better. Co-requisite: CHEM 343H or consent of instructor.

CHEM 342 Biochemistry II Credit 3
This course is a continuation of CHEM 341. It is a more intense study of the detail of biochemical processes which include energy yielding metabolic pathways, the copying, transfer and decoding of genetic information, the regulation of gene expression and recombinant DNA techniques. This course consists of three hours of lecture per week. Prerequisite: Passing of CHEM 341/341H with a letter grade of C or better. Co-requisite: CHEM 344 or consent of instructor.

¹A grade of "C" or better is required in all prerequisite courses (lecture and laboratory) to continue with sequence classes in Chemistry.

CHEM 342H¹ Honors Biochemistry II Credit 3
This course is a continuation of CHEM 341H. Students will focus on the detail of biochemical processes which include energy yielding metabolic pathways, the copying, transfer and decoding of genetic information, the regulation of gene expression and recombinant DNA techniques. This course consists of three hours of lecture per week. Prerequisite: Passing of CHEM 341H with a letter grade of C or better. Co-requisite: CHEM 344H or consent of instructor.

CHEM 343 Biochemistry Laboratory I Credit 1
This is the co-requisite/laboratory part of CHEM 341. This laboratory includes three hours of work per week on experiments that expose students to methods covering isolation and characterization of biomolecules. Co-requisite: CHEM 341 or consent of instructor. Laboratory Fee: \$25.00

CHEM 343H Honors Biochemistry Laboratory I Credit 1
This is the co-requisite/laboratory part of CHEM 341H. This laboratory includes three hours of work per week on experiments that expose students to methods covering isolation and characterization of biomolecules. Students are required to perform literature searches. Co-requisite: CHEM 341H or consent of instructor. Laboratory Fee: \$25.00

CHEM 344 Biochemistry Laboratory II Credit 1
This is the co-requisite/laboratory part of CHEM 342. This laboratory includes three hours of work per week in experiments that expose students to methods covering isolation and characterization of biomolecules. Co-requisite CHEM 342 or consent of instructor. Laboratory Fee: \$25.00

CHEM 344H Honors Biochemistry Laboratory II Credit 1
This is the co-requisite/laboratory part of CHEM 342H. This laboratory includes three hours of work per week on experiments that expose students to methods covering isolation and characterization of biomolecules. Students are required to perform literature searches. Co-requisite CHEM 342H or consent of instructor. Laboratory Fee: \$25.00

CHEM 401 Principles of Physical Chemistry I Credit 4
This course covers the laws of thermodynamics with emphasis on their application to chemical systems. Topics covered include: thermochemistry, equation of state, physical and chemical equilibrium and electrochemistry. The course consists of three hours of lecture and one three-hour laboratory period per week. Prerequisites: CHEM 112/112H. Co-requisites: PHYS 161/181H, PHYS262/182H, MATH 211 or consent of instructor Laboratory Fee: \$25.00

CHEM 402 Principles of Physical Chemistry II Credit 4
This course is the continuation of CHEM 401. The course will cover molecular structure and bonding, interpretation of spectra, elementary quantum and statistical mechanics, kinetic, theory of gases, chemical kinetics and the theory or rate processes. The course consists of three hours of lecture and one three-hour laboratory period per week. Prerequisite: CHEM 401 or consent of instructor. Laboratory Fee: \$25.00

CHEM 420 Advanced Inorganic Chemistry Credit 4
This course builds upon introductory courses that cover elementary principles of chemical bonding and structure, thermodynamics, kinetics and descriptive chemistry of the elements. This course consists of three hours of lecture and one three-hour laboratory period per week. Prerequisites: CHEM112/112H, CHEM114/114H or permission of the instructor. Laboratory Fee: \$25.00

CHEM 421 Instrumental Analysis Credit 4
This course is an introduction to the various instruments in current use in analytical laboratories. The course is designed to afford the student an opportunity to develop an appreciation of the fundamental functions and importance of specialized instruments. The principles underlying their construction are gained through the performance of selected experiments. The methods studied in this course include uv-visible spectroscopy, infrared spectroscopy, nuclear magnetic resonance spectroscopy, gas chromatography-mass spectrometry, and thermogravimetric analysis. This course consists of three hours of lecture and three hours of laboratory per week. Prerequisite: CHEM 112/112H, CHEM 311 or consent of instructor. Laboratory Fee: \$25.00

²A grade of "C" or better is required in all prerequisite courses (lecture and laboratory) to continue with sequence classes in Chemistry.

CHEM 422M Bio-Inorganic Chemistry MARC**Credit 3**

This course deals with the functions of metallic elements in biology. Consequently the roles of metal ions and a variety of non-metals in crucial life processes will be discussed. The course, which is interdisciplinary in nature, is intended for pre-medical biology and chemistry majors and those who aspire to become researchers in the bio-medical field. It will also serve the needs of final year undergraduates in inorganic chemistry, as coordination chemistry will be emphasized. Prerequisites: CHEM 212/212H, CHEM 214/214H, CHEM 341/341H, BIOL 326 or permission of the instructor.

CHEM 488A/621 Advanced Environmental Chemistry**Credit 4**

This course is a study of the origin, transport and effects of atmospheric and aquatic pollutants with emphasis on energy-related pollutants including coal, oil and synthetic fuels. The material is divided into a study of source, fate, distribution and toxicity of inorganic and organic substances of current environmental interest. The subject matter is divided into inorganic course material consisting of metals, nutrients, greenhouse gases, and vehicular emissions and organic chemical content including pesticides and petroleum hydrocarbon source material and products. The course consists of three hours of lecture and one three hour laboratory period per week. The laboratory includes gas chromatography, gas chromatography-mass spectrometry and high performance liquid chromatography experiments to supplement class discussion. Prerequisites: CHEM 112/112H, CHEM 211/211H and CHEM 311 or permission of the instructor. Laboratory Fee: \$25.00

CHEM 497 Chemistry Seminar/Honors/MARC**Credit 1**

This course focuses on current issues in the chemical field. Student participation is required. Both oral and written presentations will be required. Prerequisite: CHEM 112/112H or consent of instructor.

CHEM 498 Independent Study**Credit 3**

The hours for this course are by arrangement with the individual instructor. This course will explore current and historic chemical topics and projects. It will also cover chemical information retrieval. Written presentations will be required. Oral presentation will be encouraged. Students should finish a contract with instructor during the first week of the class. Prerequisite: CHEM 112/112H and consent of instructor.

CHEM 499 Undergraduate Research**Credit 3-4**

The hours for this course are by arrangement with the individual instructor. The student will be exposed to research methodology and have an opportunity to work closely with a faculty research advisor. It usually requires the use of advanced concepts, a variety of experimental techniques, and state-of-the-art instrumentation. This course is open to undergraduate students with an interest in pursuing a special problem as an independent research project. A written final report is required and an oral presentation is encouraged. Students should finish a contract with the instructor during the first week of the class. The students must follow American Chemical Society guidelines for preparing the final research report. Pre- or Co-requisite: CHEM 498 or consent of instructor.

DEPARTMENT OF NATURAL SCIENCES**DNCS 100 Freshman Seminar****Credit 1**

This course is designed to facilitate the adjustment of freshman science majors to college life. Aspects of preparing students for career opportunities, professional development, adjustments needed to succeed in college, study and test taking skills, crisis or stress management, and understanding the significance of the land-grant system will be discussed. Other topics include note taking, time management, conflict resolution, proper use of a science textbook, analyzing graphs and figures, test taking skills, preparing laboratory reports, and adapting to instructor style.

DNCS 400 Senior Proficiency Seminar**Credit 1**

This course is designed to evaluate the proficiency of senior level students in their major coursework. It provides students with the opportunity for the comprehensive review of the basic concepts of their major courses. The course requires students to successfully complete GRE review sessions followed by the examination, including the subject test.

¹A grade of "C" or better is required in all prerequisite courses (lecture and laboratory) to continue with sequence classes in Chemistry.

ENTOMOLOGY

ENTO 313 Entomology

Credit 3

This course provides students in the biological, agricultural and environmental sciences with the knowledge necessary to identify and study selected arthropodan groups that influence man (*Homo sapiens*) directly or indirectly. Detailed information on how to recognize and correctly identify the organism directly or from the damage caused by it is provided. A significant part of the course is devoted to aquatic insects, parasitoids, and ectoparasites. This information enables students to work in many settings including medical technology, fisheries and wildlife biology, forensic sciences and molecular biology. Detailed information on habitats, life cycles, control measures, disease prevention, Integrated Pest Management (IPM) principles and techniques, ecology, physiology, behaviors, survival strategies, and insect/plant interactions are discussed in detail. The prerequisites for this course include: BIOL/111H (grade of C or higher). This course is comprised of three hours of lecture per week.

ENVIRONMENTAL SCIENCES

ENVS 101 Introduction to Environmental Sciences/Online

Credit 3

This is an introductory lecture-based course in environmental science for the non-science majors. This course surveys the scope and extent of man's environmental problems and also deals with socioeconomic and scientific aspects of pollution and control methods. The course emphasizes man's disruption of the environment, population, growth, urbanization, public policy, and environmental trade-offs and is also designed to discuss the scientific processes that have been applied to the identification of environmental problems.

ENVS 202 General Oceanography

Credit 3

This is a survey course of the physical and chemical processes associated with the ocean environment. Topics discussed include earth history and ocean basin evolution, global plate tectonics, the marine provinces, the chemistry of sea water, air-sea interaction, oceanic control of climate, oceanic sediments, major currents, waves, tides, water column stratification, deep-sea research, coastal and estuarine processes, and marine resources. Co-requisite: ENVS 204.

ENVS 204 General Oceanography Laboratory

Credit 1

This is a laboratory experience to accompany ENVS 202. Laboratory exercises are designed to acquaint the student with basic oceanographic methods, instruments, and data analysis. Exercises include ocean floor geology, plate tectonics and basin evolution, marine charts and navigation, salinity, beach profile determinations, bathymetry, marine weather, and seismic reflection data analysis. Field trips are also conducted during which students gain practical experience using oceanographic apparatus. Co-requisite: ENVS 202. Laboratory Fee: \$25.00

ENVS 221 Principles of Environmental Science

Credit 3

This is an interdisciplinary course that examines human influences on the world's environments. This course integrates biological, physical, and chemical sciences to study the problems affecting our environment and engages social, political, and economic concepts to understand why these problems exist and the complexity of these issues. Various topics will be discussed, including ecology of natural systems, population growth, air and water pollution, global climate change, extinction of species, use of water, land, and food resources, energy use, toxic compounds, solid wastes, and legal and economic aspects of environmental degradation. This course is for science majors only. Prerequisites: BIOL 112/112H, CHEM 112/112H.

ENVS 222 Principles of Environmental Science Lab

Credit 1

This course presents applications of basic principles in environmental sciences through experimental exercises in the laboratory, demonstration of field techniques in a problem solving setting and visits to sites that illustrate these basic principles. Co-requisite: ENVS 221. Laboratory Fee: \$25.00

ENVS 301 Marine Chemistry

Credit 3

The course provides understanding of the dynamic nature of marine ecosystems. Basic oceanography, the role of the oceans in geochemical cycles, the resident time of different elements in the ocean, the chemical cycling of elements important to biological systems, effects of the chemistry of the oceans on the future of planet Earth, and examples of human impacts on ocean chemistry will be covered. Pre-requisite: BIOL 111/111H, BIOLL13/113H and CHEM 212/212H, CHEM 214/214H.

ENVS 333 Energy, Environment and Economics

Credit 3

This course examines the scientific, social, and economic factors affecting energy consumption in the United States and world wide. The effects of global energy production on the environment are emphasized as well as the potential effects of new energy sources. Because of the potential political, social and economic ramifications, the course involves discussions and readings into the role of these factors in influencing regional and global patterns of energy consumption and resultant environmental change. Prerequisite: PHYS 122, ENVS 221.

ENVS 403/601 Marine Ecotoxicology**Credit 3**

This course cuts across traditional subject boundaries by integrating different disciplines, such as chemistry and biochemistry, through ecology and statistics. It provides students with a distinct approach to solving marine environmental pollution issues stemming from stable pollutants how they interact with biotic and abiotic components of the marine ecosystem. Pre-requisites: CHEM 112/112H, CHEM 211/211H, BIOL 112/112H and MATH 210.

ENVS 411 Water Pollution and Purification**Credit 3**

This course discusses biological, chemical, and physical impurities in water, with emphasis on agricultural, industrial, and municipal water pollution, including acid mine drainage, detergents and eutrophication, thermal pollution, oil spills, and other non-point source pollution. Further study of the physical and biochemical processes for waste-water treatment, sludge handling and disposal, and land disposal of wastewaters. Prerequisites: BIOL 111, BIOL 112/112H, CHEM 112/112H, PHYS 122/182H, ENVS 221, Junior class standing or consent of the instructor.

ENVS 413 Water Pollution and Purification Lab**Credit 1**

This course consists of a three-hour laboratory session every week, designed to provide hands-on experiences in the determination of dissolved and suspended volatile solids in liquids, biochemical oxygen demand, chemical oxygen demand, turbidity, free and residual chlorine, nutrients and metals in water and wastewaters. Co-requisite: ENVS 411. Laboratory Fee: \$25.00

ENVS 434 Air Pollution**Credit 4**

This course discusses air quality measurements and air pollution control legislation classification of atmospheric pollutants and their effects on visibility, inanimate, and animate receptors are discussed. Evaluation of source emissions and principles of air pollution control governing the distribution of air pollutants are studied. The laboratory section includes hands-on experiments to study the effect of smoke on living cells, thermal inversion, particulate collection using an impactor, effects of air pollutants on materials and field trips to electric power plant and other facilities. Prerequisites: BIOL 112/112H, CHEM 112/112H, PHYS 122/182H, ENVS 221, Junior class standing or consent of the instructor. Laboratory Fee: \$25.00.

ENVS 456 Future Sources of Energy**Credit 3**

This course examines various sources of energy used in the United States and globally. Sources discussed include fossil fuels, hydro-electricity, and nuclear energy; alternative sources of energy, including geothermal, solar, photovoltaic cells, wind, tidal, hydrogen fuels from wastes and biomass, and ocean thermal gradient. Students also study processes dealing with energy conservation and energy policy and discuss current issues. Prerequisite: PHYS 122.

ENVS 460 Earth Science**Credit 3**

This course is an interdisciplinary examination of the grand challenges confronting the environmental sciences in the 21st Century. Topics examined include biogeochemical cycles, biodiversity and ecosystem functioning, climate variability, hydrologic forecasting, infectious disease and the environment, legal control of resource use, land-use dynamics, and the re-use of materials. The practical and scientific importance of each topic is discussed as well as the readiness of the scientific establishment to meet important areas for future research. Students are expected to research and answer a series of practical hypothetical environmental problems in each area discussed. Prerequisites: ENVS 221, 222, or consent of the instructor.

ENVS 497 Environmental Science Seminar/ Online**Credit 1**

The course covers discussions on current issues in Environmental Sciences and includes student presentations. Topics such as global warming, green house effects, eutrophication, desertification, and other pertinent issues on the environment are covered. The course is opened to juniors and seniors only.

ENVS 498 Independent Study**Credit 1-3**

In this course, students conduct literature survey under the supervision of a faculty member. It is designed to enhance student comprehension of specific environmental science specialty areas. Students are required to read significant literature in selected subjects followed by discussions with the instructor. The hours and credits for this course are by arrangement with the individual instructor.

ENVS 499 Undergraduate Research**Credit 1-4**

In this course, students conduct independent research project under the supervision of a faculty member. Apart from the research, students are also expected to present oral and written reports. The course is designed for juniors or seniors who have an interest in pursuing a special problem as a research project. The hours and credits for this course are by arrangement with the individual instructor.

PHYSICS

PHYS 101 Theories and Applications of Physical Science/Online

Credit 3

Physical Science is about the rules of the physical world—physics, chemistry, astronomy, geology and meteorology. This is a one-semester course intended for the non-science major. Because of the scope of these sciences, Physical Science is usually team taught whenever resources permit. Until team teaching becomes possible, choice of subject has been limited to Physics. As we assume little or no preparation on the part of the student, our choice of topics and how far to develop them is limited to emphasis on the basic concepts of each subject. This course satisfies the UMES general education requirement curriculum area III. There are three one-hour lectures per week. Prerequisites: High School Algebra or MATH 101.

PHYS 103 Physical Science Laboratory

Credit 1

This course consists of two hours laboratory work per week. Selected fundamental experiments basic to physical science are designed to provide the student opportunities to learn practical knowledge necessary for a well-rounded understanding of physical science. Laboratory Fee: \$25.00

PHYS 121 General College Physics I

Credit 3

This is the first semester of the two-semester course designed to provide the student with an overall view of the concepts, together with the ability to set-up and solve simple problems in physics. Areas covered include particle mechanics, heat, thermodynamics, and sound. This is a non-calculus based physics course. The course consists of three hours lecture per week. Prerequisite: MATH 109. Co-requisite: PHYS 123.

PHYS 122 General College Physics II

Credit 3

This is the second semester of the two-semester course in non-calculus based physics. Areas covered include: electricity, magnetism, light, and selected topics in modern physics. The course consists of three hours lecture per week. Prerequisite: PHYS 121. Co-requisite: PHYS 124.

PHYS 123 General College Physics I Lab

Credit 1

This course consists of two hours laboratory work per week. Standard laboratory experiments are selected to provide the student with practical knowledge of Physics and to enhance knowledge gained in the classroom. This course should be taken in concurrence with PHYS 121. Laboratory Fee: \$25.

PHYS 124 General College Physics II Laboratory

Credit 1

This course consists of two hours laboratory work per week. Standard laboratory experiments are selected to provide the student with practical knowledge of Physics and to enhance knowledge gained in the classroom. This course should be taken in concurrence with PHYS 122. Laboratory Fee: \$25

PHYS 161 General Physics I Mechanics and Particle Dynamics

Credit 3

This is the first semester of a three-semester calculus based course in general physics (see PHYS 262, PHYS 263). Areas covered include laws of motion, energy conservation, linear momentum, collisions, rotation and angular momentum, universal gravitation and fluid mechanics. Registration in the laboratory part of the course is required. Three lectures per week. Prerequisites: High School Physics and MATH 112. Co-requisite: PHYS 163. Concurrent registration in MATH 211 is recommended.

PHYS 163 General Physics Laboratory I

Credit 1

This is a three-hour per week laboratory course associated with General Physics I. Laboratory exercises relate to the material covered in the lectures. The course introduces students to the modern tools of collecting and analyzing data. Labs are computer based, and extensive use of a spreadsheet program is made to analyze, plot, and interpret data. Pre-requisites: High school physics and basic knowledge of using a computer and a spreadsheet program. Co-requisite: PHYS161. Laboratory Fee: \$25.00.

PHYS 181H Introductory Physics I Honors

Credit 3

This is the first semester of a two-semester calculus-based sequence in introductory physics. Topics include Newtonian mechanics, hydrostatics, thermal physics, and mechanical waves. The detailed subject matter for the course is chosen to emphasize physical principles and their applications, which are essential to an understanding of contemporary physics. Registration in the laboratory part of the course is required. Three lectures and one-hour discussion session per week. Prerequisites: High School Physics and MATH 112. Co-requisite: PHYS 183H. Concurrent enrollment in MATH 211 is recommended.

PHYS 182H Introductory Physics II Honors

Credit 3

This is the second half of the two-semester course in calculus-based introductory physics. Areas covered include electrostatics, electrodynamics, geometrical and physical optics, and selected topics in modern physics. Three lectures and one-hour discussion session per week. Registration in the laboratory part of the course is required. Prerequisites: PHYS 181H and PHYS 183H. Co-requisite: PHYS 184H.

PHYS 183H **Introductory Physics Laboratory I** **Credit 1**
The course consists of one three-hour laboratory session per week to accompany PHYS181H. Laboratory exercises are designed to relate to the material covered in the accompanying course. Experiments are computer based, and a spreadsheet program is used to analyze, plot, and interpret data. Pre-requisites: High school physics and basic knowledge of using a computer and a spreadsheet program. Co-requisite: PHYS181H. Laboratory Fee: \$25.

PHYS 184H **Introductory Physics Laboratory II** **Credit 1**
The course consists of one three-hour laboratory session to accompany PHYS182H. Laboratory exercises are designed to reinforce the material covered in the accompanying course. Most experiments are computer based. Pre-requisites: PHYS181H and PHYS 183H. Co-requisite: PHYS182H. Laboratory Fee: \$25.

PHYS 262 **General Physics II Waves, Heat, Electricity** **Credit 3**
This course consists of three lecture sessions per week. This is a second semester of a calculus based, three-semester course in general physics. Areas covered include: vibrations, waves, heat kinetic theory, thermodynamics, electrostatics, and DC circuits. Registration in the laboratory part of the course is required. Prerequisites: PHYS 161 and PHYS 163. Co-requisite PHYS 264.

PHYS 263 **General Physics III: Magnetism, Electrodynamics, Optics and Modern Physics** **Credit 3**
This is the third semester of a calculus-based general physics course. Areas covered include: Magnetism, electrodynamics, geometrical and physical optics, and selected topics in modern physics. Registration in the laboratory part of the course is required Three lectures per week. Prerequisites: PHYS 262 and PHYS 264, or PHYS 182H and PHYS 184H. Co-requisite: PHYS 265.

PHYS 264 **General Physics Laboratory II** **Credit 1**
This is a three-hour per week laboratory session associated with General Physics II. Several of the laboratory exercises are computer based and focus on reinforcing the material covered in the accompanying course. Prerequisites: PHYS161 and PHYS163. Co-requisite: PHYS262. Laboratory Fee: \$25.

PHYS 265 **General Physics Laboratory III** **Credit 1**
This is a three-hour per week laboratory course intended for students enrolled in General Physics III. Experiments are designed to reinforce the material covered in the accompanying course. Modern tools are used to gather, analyze and plot data. Pre-requisites: PHYS262 and PHYS264; or PHYS 182H and PHYS 184H. Co-requisite: PHYS263. Laboratory Fee: \$25.00

PHYS 283 **Modern Optics** **Credit 3**
This course presents an in-depth discussion of the principles of geometrical and physical optics. Approximately one-fourth of the course is devoted to geometrical optics and one-half to wave optics, including wave motion and interference, diffraction, polarization, and dispersion, etc. The remaining one-fourth of the semester is devoted to quantum optics which includes recent developments in the fields of lasers. Prerequisites: PHYS 182H and PHYS 184H; or PHYS 263 and PHYS 265.

PHYS 423 **Modern Physics** **Credit 3**
This course is a survey of atomic and nuclear phenomena, special relativity, origin of quantum theory. Bohr atom, wave mechanics, atomic structure and optical spectra. This course consists of three one- hours lecture per week. Prerequisites: PHYS 182H and PHYS 184H; or PHYS 263 and PHYS 265.

PHYS 497 **Physics Seminar** **Credit 1**
This course will discuss various current topics in physics. Prerequisite: One year of physics with "B" or better grade. It is open only with consent of instructor. Designed for juniors or seniors who have an interest in pursuing a special problem as a research project.

PHYS 498 **Independent Study** **Credit 1-3**
This course is designed to enhance student comprehension of specific physics subject area. It is open to juniors and seniors with consent of instructor only.

PHYS 499 **Undergraduate Research** **Credit 1-4**
This course is designed for juniors or seniors who have an interest in pursuing a special problem as a research project. It is open only with the consent of instructor. Prerequisite: One year of Physics with "B" or better grade.

DIRECTORY OF FACULTY

Cheney, MarcusAssociate Professor
B.S., Univ. of Baja Chem., .M.Sc. Bio-Inorg., U.C. Davis, Ph.D. Anal & Envir. Chem., U.C. Davis

Chigbu, PaulinusDirector, LMRCSC & Professor
B.Sc. & M.Sc.; University of Benin, Nigeria; Ph.D., University of Washington, Seattle

Dodoo, Joseph Lecturer
B. Sc. Polytechnic of South Bank; M.Sc., Bedford College University of London
Ph.D., King's College, University of London

Hearne, Jennifer Assistant Professor
B.S., University of Maryland Eastern Shore; Ph.D., University of Delaware

Ishaque, Ali B.Associate Professor
B.Sc., University of Science & Technology; M.Sc. & Ph.D., Free University of Brussels

Johnson, Andrea Research Assistant Professor
B.S., University of Miami; M.S., University of South Florida
Ph.D., North Carolina State University

Johnson, LindaAssociate Professor
B.S., Lincoln University; M.S., & Ph.D., Temple

Mack, Kelly Professor
B. S., University of Maryland Eastern Shore; Ph.D., Howard University

Mandouma, Ghislain Assistant Professor
B.Sc., Imperial College, London/England; M.Sc., Universite de Paris-Sud, Orsay
Ph.D., City University of New York Graduate Center

May, EricAssociate Professor
B.S., Oregon State University; M.S., North Arizona State University
Ph.D., Oregon State University

Mazzaccaro, Anthony Lecturer
B.S., University of Maryland College Park; M.S., Texas A&M University
Ph. D., Texas A&M University

McCrary, Quintece Lecturer
B.S., M.S., Tuskegee University

Mitra, MadhumiAssociate Professor
B.S., Presidency College, India; M.S., Calcutta University, India
Ph.D. North Carolina State University

Nyame, Anthony Professor
B.S., University of Science & Technology, Kumasi, Ghana
M.S., Tulane University School of Public Health & Tropical Medicine
Ph.D., University of Georgia

Okoh, Joseph Chair and Professor
B.Sc., University of Lagos, Nigeria; Ph.D., Howard University

Okulate, Mobolaji Assistant Professor
B.Sc., Ph.D., University of Lagos, Lagos, Nigeria

Pinion, Jack Lecturer
B.S., Ph.D., George Washington University

- Pitula, Joseph** **Assistant Professor**
 B.S., Rutgers University; M.S., Ph.D., University of Buffalo, NY
- Potter, Amelia** **Lecturer**
 B.S., Birmingham Southern University; M.S., University of Maryland Eastern Shore
- Ruby, Douglas** **Professor**
 B.S., Gettysburg College; M.S., Ph.D., University of Michigan
- Singh, Gurbax** **Professor**
 B.S., M.S., Delhi University; Ph.D., University of Maryland College Park
- Singleton, Jeurel** **Associate Professor**
 B.S., M.S., University of North Dakota; Ph.D., University of Ottawa, Canada
- Stevens, Bradley** **Distinguished Research Scientist and Associate Professor**
 S.B., University of Cincinnati; M.S., College of Charleston; Ph.D., University of Washington
- Taabodi, Maryam** **Lecturer**
 B.S., Salisbury University; M.S., University of Maryland Eastern Shore
- Uche, Udeochu** **Assistant Professor**
 B.Sc. & M.Sc. University of Ibadan, Nigeria; Ph.D., Howard University
- Waguespack, Yan** **Professor**
 B.S., Beijing Polytechnic University; Ph.D., Tulane University

DEPARTMENT OF CRIMINAL JUSTICE

<http://www.umes.edu/SAPS>

Dr. David Spinner, Chairperson

MISSION

The mission of the Department of Criminal Justice is to prepare students for careers in a variety of criminal justice-related settings. The program is also designed to prepare its graduates to enter master's programs in criminology and criminal justice.

OBJECTIVES

The objectives of the Criminal Justice Department are to:

1. Prepare students for careers in a variety of Criminal Justice related settings; and,
2. Prepare its graduates to enter master's level programs in criminology and criminal justice.

The specific objectives of the Criminal Justice program are to develop in each student:

1. an understanding of the principles underlying the functions of the criminal justice system and its relationship to the larger society in which it is embedded;
2. the ability to think clearly, independently, and critically about the fundamental issues in criminal justice;
3. the ability to do research, analysis and writing about criminal justice issues;
4. the foundations necessary for graduate study, and for careers in the field of criminal justice.

DEGREES OFFERED

Criminal Justice – Bachelor of Science

Criminology and Criminal Justice – Master of Science¹

DEPARTMENT GENERAL PROGRAM REQUIREMENTS

The admission of students to the undergraduate program in the Department of Criminal Justice is based upon the general admission requirements of the University.

The Criminal Justice Major – Students majoring in Criminal Justice must complete 120 semester hours of University coursework. Included in the 120 hours are a minimum of 41 semester hours of General Education Requirements, 24 hours of major Criminal Justice core courses, 21 semester hours of major elective courses, 15 semester hours of Supportive courses, and 19 semester hours of free elective courses. Major electives are criminal justice courses at the 300-400 level which are applicable to one or more of the three strand options available for the degree program. The Strands are Corrections, Law Enforcement or Pre-Law.

A minimum grade of “C” must be achieved in the core and the major elective courses. Students must maintain a grade point average of “C” or better for the supportive courses and for courses completed for graduation that are outside the major or minor such as the General Education Requirements and the free electives.

CAREER OPPORTUNITIES

A degree in Criminal Justice prepares students to work in any of the Criminal Justice systems' component areas at local, state or national levels, i.e. law enforcement, corrections, parole and probation, the courts and juvenile services. It also prepares students to pursue graduate and law degrees.

¹ See *Graduate Catalog*

²A minimum grade of “C” is required for each course.

REQUIRED MAJOR COURSES

CRJS 101	CRJS 200	CRJS 300
	CRJS 201	CRJS 312
	CRJS 204	CRJS 336
	CRJS 290	CRJS 370

CURRICULUM GUIDE FOR CRIMINAL JUSTICE

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credits</i>
CRJS 101	3	CRJS 200	3
EXSC 111 ¹	3	ENGL 102	3
ENGL 101	3	GEN ED CURR AREA III	4
CRJS 100	1	PSYC 200 ²	3
MATH 102	3	SOCI 201 ² or	
SOCI 101 ²	<u>3</u>	SOCI 202 ²	<u>3</u>
	16		16

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credits</i>
CRJS 370	3	BUED 212 ² or	3
ENGL 203	3	CSDP 220 ²	4
GEN ED CURR AREA I	3	CRJS 204	3
GEN ED CURR AREA II	3	CRJS 201	3
GEN ED CURR AREA III	<u>3</u>	ENGL 305 or	3
	15	ENGL 310	3
		Free Elective ³	<u>3</u>
			15/16

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credits</i>
CRJS Elective ⁴	3	CRJS Elective ⁴	3
CRJS Elective ⁴	3	CRJS 326	3
CRJS 312	3	GEN ED CURR AREA I	3
CRJS 401	3	GEN ED CURR AREA II	3
GEN ED CURR AREA VI	<u>3</u>	PSYC 371 ²	<u>3</u>
	15		15

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credits</i>
CRJS Elective ⁴	3	CRJS Elective ⁴	3
CRJS Elective ⁴	3	Free Elective ³	3
CRJS Elective ⁴	3	Free Elective ³	3
Free Elective ³	3	Free Elective ³	<u>3/4</u>
Free Elective ³	<u>3</u>		12/13
	15		

Total Credit Hours: 120

¹EXSC 111 cannot be repeated for credit

²Students must select a minimum of 15 credit hours from the Supportive courses listed: BUED 212, CSDP 220, PSYC 200, PSYC 371, SOCI 101, SOCI 201, SOCI 202.

³Students may take any course at the University for which they meet the prerequisites.

⁴Students may select any 300 or 400 Level CRJS course.

MINOR PROGRAM

The Minor program in Criminal Justice is designed to provide a secondary concentration for students majoring in other disciplines. The program objectives are to (1) promote informed understanding of the manner in which the criminal justice system functions, (2) closely examine the fundamental issues in criminal justice, and (3) explore criminological theory. The program consists of eighteen (18) credit hours in the following Criminal Justice courses:

REQUIRED MINOR¹ COURSES

CRJS 101	CRJS 200	CRJS 312	CRJS 430
	CRJS 201		
	CRJS 235		

¹A minimum grade of "C" is required for each course.

RECOMMENDED MAJOR AND FREE ELECTIVES BY STRAND OPTIONS

	CORRECTIONS (Major Electives)		
CRJS 350	CRJS 406	CRJS 489	SOWK 455
	CRJS 430	CRJS 492B	SOWK 460
	CRJS 435		
	CRJS 450		
	CRJS 465		

Free Elective
CRJS 234

	PRE-LAW (Major Electives)		
CRJS 300	CRJS 432	SOCI 305	SOWK 484
CRJS 302	CRJS 492D		
CRJS 323	CRJS 492F		
CRJS 375			

	Free Electives		
CRJS 234	ECON 201	ENGL 318	PHIL 101 ¹
			POLI 311

¹Course offered at Salisbury University.

COURSE DESCRIPTIONS IN CRIMINAL JUSTICE

- CRJS 100 First Year Experience Credit 3**
This course is to provide an opportunity for students to make a seamless transition from high school to college. Essential skill for transition will be explored and discussed. This course will assist students in developing cognitive skills and will assist them in adjusting personally and socially to the college environment. This course will enable first-year students to develop creative and critical thinking skills, and information literacy skills needed to facilitate a successful transition from high school to university.
- CRJS 101 Introduction to Criminal Justice Credit 3**
This course presents an overview of the functioning of the criminal justice system and its relationship to society.
- CRJS 200 Law Enforcement Credit 3**
This course is an introduction to law enforcement, with emphasis on police organizations and functions. It covers the recruitment, training, and socialization of police officers, the use of deadly force and selective enforcement of the law, and other critical issues in policing. Prerequisite: CRJS 101
- CRJS 201 Introduction to Corrections Credit 3**
Philosophical foundations of punishment, historical developments in the American penology. Corrections in contemporary American. Prerequisite: CRJS 101.
- CRJS 204 Courts Credit 3**
This course presents an introduction to the structure, jurisdiction, policies, procedures, and processes of local, state, and federal courts and the role of the defense attorney, prosecutor, and judge. Special focus on adjudication, sentencing, and the jury. Prerequisite: CRJS 101.
- CRJS 234 Law of Evidence/Honors Credit 3**
This course involves the study and evaluation of evidence and proof. Prerequisite: CRJS 101.
- CRJS 300 Criminal Law/Honors Credit 3**
An examination of the central principles of criminal law, which includes the substantive elements defining criminal conduct for specific crimes and various exculpatory conditions for criminal liability. Prerequisite: CRJS 101.
- CRJS 302 Criminal Procedure Credit 3**
General application of U.S. constitution principles to investigate and prosecutorial process of the criminal justice system. Emphasis will be placed on the Bill of Rights and its application in justice administration. Prerequisites: CRJS 204, Sophomore, Junior or Senior standing.
- CRJS 306 Victimology**
This course examines the impact of victimization upon the victim; new emphasis of the role of the victim in criminal justice practice and victim impact statement, assistance, and restitution. Prerequisite: CRJS101 for CRJS majors or permission from instructor for non-majors, and Sophomore, Junior or Senior standing.
- CRJS 312 Criminology/Honors Credit 3**
Theoretical explanations of crime: the nature and extent of crime, historical development of criminological theory; and analysis of crime control and implications. Prerequisite: CRJS 101, SOCI 201, or SOCI 202 and Sophomore, Junior, or Senior standing.
- CRJS 320 Introduction to Forensics and Criminalistics Credit 3**
A study in crime scene investigation including procedures for preservation, processing, and analysis of physical, chemical, biological, and forensic evidence to determine association to crime. Prerequisites: Sophomore, Junior or Senior standing, CRJS 204; and 3 to 4 credit hour science course with labs such as BOIL 101, CHEM 101, ENVS 101, PHYS 101 or equivalent course applicable to forensic evidence.
- CRJS 323 Organizational and Governmental Deviance/Honors Credit 3**
Analysis of internal (pilfering, embezzlement, corruption, violence, drug abuse, etc.) and external (chemical dumping, hazardous product sales, etc.) forms of state-sponsored terrorism and organizational deviance and control. Prerequisites: Sophomore, Junior or Senior standing.
- CRJS 325 Economics and Crime Credit 3**
This course will provide students with the fundamentals of economics particularly as it pertains to crime in society. Theory and cost analysis will be emphasized. Prerequisites: Sophomore, Junior or Senior standing.

- CRJS 326 Juvenile Delinquency/Honors Credit 3**
This course is an analysis of historical and contemporary factors underlying juvenile delinquency, its treatment, and its prevention. Prerequisites: Sophomore, Junior or Senior standing.
- CRJS 333 Law Enforcement Community Relations Credit 3**
Factors affecting the relationship between law enforcement agencies and the communities in which they are embedded. Police strength, use of deadly force, assaults on police, and other indices of community/police distance will be analyzed. Prerequisites: CRJS 200 and Sophomore, Junior, or Senior standing.
- CRJS 347 Terrorism and Contemporary Society Credit 3**
This course focuses on the history of terrorism, the dynamics of terrorism and society's reaction to terrorism. It includes world view of terrorism, the cause, typologies (including environmental/ecological, economic, industrial, and state-sponsored terrorism), proliferation, and global initiatives in combating terror. It also covers the definitional dilemma of the US laws on terrorism in relation to contemporary terror. It also covers the definitional dilemma of the US laws on terrorism in relation to contemporary society. Prerequisites: Sophomore, Junior or Senior standing.
- CRJS 350 Parole and Probation/Honors Credit 3**
An examination of historical development, decision-making processes, management, and supervision of Probation and Parole. The course discusses judicial diversion to community intervention and treatment programs as a rational alternative to prison overcrowding quagmire. Prerequisite: CRJS 201 and Sophomore, Junior or Senior standing.
- CRJS 359 Field Training in Criminology and Criminal Justice Credit 1-6**
This is a service-learning course which requires students to serve as mentors to juvenile delinquents.
- CRJS 360 Field Training in Criminology and Criminal Justice (with Juvenile Services) Credit 3**
This course entails a supervised research project in a criminal justice agency. Prerequisite: Junior or Senior Standing.
- CRJS 370 Statistical Methods in Criminal Justice and Criminology Credit 3**
Management philosophies for administration of criminal justice agencies; focus on organizational behavior, theories of management, planning and budgeting, administrative legal issues, and administrative problems unique to the criminal justice system. This course deals with the principles of structure, process, and procedure in criminal justice administration. Prerequisite: Sophomore, Junior and Senior standing.
- CRJS 373 Criminal Justice Administration/Online Credit 3**
Management philosophies for administration of criminal justice agencies; focus on organizational behavior, theories of management, planning and budgeting, administrative legal issues, and administrative problems unique to the criminal justice system. This course deals with the principles of structure, process, and procedure in criminal justice administration. Prerequisite: Sophomore, Junior and Senior standing
- CRJS 375 Judicial Process Credit 3**
This course examines the impact of judicial decision on social policy as it relates to criminology and criminal justice administration. Emphasis is placed on the federal constitutional courts, the growth of law, and the law making of the courts. Prerequisite: CRJS 204, Sophomore, Junior or Senior standing.
- CRJS 401 Research Methods in Criminology and Criminal Justice Credit 3**
Basic methodological and statistical (applied) issues in Criminology and Criminal Justice. Designed to provide students with a foundation in social science research methods. Prerequisite: CRJS 370, Junior or Senior standing.
- CRJS 406 Law of Corrections/Honors Credit 3**
This course examines the evolution and current status of the law governing correctional institutions, prisoners' rights, and their relationship to society. Prerequisites: Junior or Senior Standing
- CRJS 415 Dynamics of Planned Change in Criminal Justice Credit 3**
This course deals with the use of research, social science, and management theory as tools in the planning and evaluation of change in the criminal justice system. Prerequisites: Junior or Senior Standing.
- CRJS 430 Contemporary Criminological Theory/Honors Credit 3**
This course examines advances in criminological theory and research from biological, psychological, and sociological perspectives. Prerequisites: Junior or Senior Standing, CRJS 312.

- CRJS 435 Psychology of Criminal Behavior Credit 3**
 This course entails an in-depth examination of psychological factors in criminal behavior, the role of the psychologist in constructing profiles of different types of criminals, and problems in validation. Prerequisites: Junior or Senior Standing, CRJS 312.
- CRJS 450 Treatment of Control of Criminals and Delinquents/Honors Credit 3**
 This course examines alternative institutional and non-institutional approaches to treatment and control of criminal and delinquent populations. Prerequisites: Junior Standing, CRJS 312
- CRJS 451 Crime and Delinquency Prevention/Honors/Online Credit 3**
 In-depth history and typologies of crime and delinquency prevention strategies in the United States. Theoretical and practical strategies for crime prevention through mechanical construction, social engineering or environmental designs. The role of the agencies of the Criminal Justice System is analyzed in terms of current effectiveness and future potential for crime prevention. Prerequisite: Junior or Senior Standing, CRJS 401.
- CRJS 460 Minority Groups and the Criminal Justice System Credit 3**
 The involvement of minorities, especially African Americans and Hispanics, in crime and in the criminal justice system will be analyzed. Special attention will be paid to the role of racism in theories of crime and in American law and to the treatment of minorities by various components of the criminal justice system. Prerequisite: Junior or Senior Standing.
- CRJS 465 Comparative Criminal Justice System Credit 3**
 An examination, in comparative analysis, of the criminal justice and penal methods of pertinent countries and the United States. Major emphasis will be given to the issues of intent, criminal responsibility, individual and public interests, purposes, and modes of prevention, repression and punishment, methods of trial, punishment and pardon. *Prerequisite:* Junior or Senior Standing.
- CRJS 470 Independent Study Credit 3**
 An individualized approach to selected topics by guided reading and critical evaluation. A student registered for this course must submit a prospectus, outline, and bibliography and meet with the professor on weekly basis. *Prerequisite* Junior or Senior Standing, CRJS 401.
- CRJS 489 Internship in Criminology and Criminal Justice Credit 3-9**
 Field placement in an approved criminal justice or social service agency for integration of theory and practice through participant observation study. Prerequisite: Junior or Senior standing.
- CRJS 492¹ Special Topics in Criminology and Criminal Justice Credit 3**
 Special topics in criminology and criminal justice. Topic to be explored is determined by the professor. Each professor will have special designation pertaining to their course when offered. Prerequisite: Junior or Senior and CRJS 312.
- CRJS 492A Special Topics: Criminology & Corrections**
CRJS 492B Special Topics: Women in Corrections
CRJS 492C Special Topics: Crime, Class, and Ideology
CRJS 492D Special Topics: Unequal Justice
CRJS 492E Special Topics: Drugs and Crime
CRJS 492F Special Topics: Police, Law and Society
CRJS 492G Special Topics: Variable

¹All CRJS 492 courses are three credits.

DIRECTORY OF FACULTY

Brockett, Ramona **Associate Professor**
B.A. College of Saint Elizabeth; Ph.D. Rutgers University; J.D., Boston College Law School

Bynum, Evita G. **Assistant Professor**
B.S. Xavier University of Louisiana; M.S. American University; Ph.D. American University

Dahlgren, Daniel C. **Assistant Professor**
B.A., B.A., M.A., Kent State University; Ph.D., Kent State University/University of Akron

Mosley, Thomas S. **Associate Professor**
B.A., University of Memphis; M.A., University of Memphis; Ph.D., Howard University

Onyeozili, Emmanuel C. **Associate Professor**
B.A., University of Ibadan; M.A., Clark-Atlanta University; Ph.D., Florida State University

Spinner, David **Chair and Associate Professor**
Ph.D., University of Maryland, College Park

DEPARTMENT OF EDUCATION

<http://www.umes.edu/SAPS>

Dr. Karen A. Verbeke, Chairperson

MISSION

The mission of the Department of Education and Professional Education Unit is to advance the science and practice of education, and to promote related careers in counseling and mental health. Toward this end, the Department and Unit offer state-of-the-art undergraduate and graduate teacher education programs, a Master of Arts in Teaching and a graduate counselor education program. The Department of Education and Professional Education Unit seek to nurture minds, advance knowledge, promote life-long learning and adjustment, and elevate the human spirit.

OBJECTIVES

The objectives of the Department of Education are to:

1. Equip teacher candidates with the professional knowledge base of change strategies that enables them to participate in school restructuring;
2. Prepare teacher candidates to become engaged critical and creative thinkers, problem solvers, and reflective professionals;
3. Enable teacher candidates to review and embrace their personal heritage in order to facilitate learning for individuals from diverse ethnic and cultural backgrounds;
4. Develop teachers who are consumers, brokers, and generators of school-based research;
5. Prepare teacher candidates who are innovative users of and advocates for content technology-based instruction including internet resources and interactive dialogue;
6. Produce educational and community leaders who integrate state, national, and international priorities into instructional and assessment strategies;
7. Prepare teacher candidates who incorporate national and state professional standards, including INTASC principles, into their practice;
8. Prepare teacher candidates who incorporate the Professional Education Unit's Conceptual Framework into their practice;
9. Demonstrate appropriate human, conceptual, and technical skills when working with students and other educational stakeholders; and
10. Prepare teacher candidates with a commitment to the moral obligations of teaching so as to ensure equitable access to and engagement in the best possible P-12 education for all children and youth including those with disabilities, those for whom English is a second language, and those who are gifted and talented.

DEGREES OFFERED

Bachelor of Science - Special Education

Master of Arts in Teaching¹ (Agriculture, Art, Biology, Business, Chemistry, English, Family and Consumer Sciences, Mathematics, Music, Social Studies, Technology) – Master of Arts in Teaching¹

Master of Education – Counselor Education¹

Master of Education – Special Education¹

¹Consult the UMES Graduate Catalog for details.

GENERAL PROGRAM REQUIREMENTS

The initial admission of students to the undergraduate programs in the Department of Education and Teacher Education is based upon the general admission requirements of the University. The program requirements increase as students move through their teacher education program. The only teacher education program housed in the Department of Education is Special Education. However, all 12 undergraduate teacher education programs (i.e., Agriculture, Art, Biology, Business, Chemistry, English, Family and Consumer Sciences, Mathematics, Music, Social Studies, Special Education, and Technology) are administered in collaboration with the Department of Education.

The undergraduate teacher education programs lead to the Bachelor of Arts (B.A.) or Bachelor of Science (B.S.) degree in a variety of areas. The course of study prepares students to become qualified teachers, and to assume the complex role of a teacher in the classrooms of the twenty-first century. The primary goal of the undergraduate teacher education program is to ensure success within the teaching profession by: 1) providing a comprehensive knowledge base that ensures competency in the subject matter and in the processes of education; and 2) providing the opportunity to develop sophisticated clinical skills. This program reflects current trends in the field of education and emphasizes excellence in both the theoretical and applied domains.

DEPARTMENTAL AND TEACHER EDUCATION REQUIREMENTS

The course of study prescribed for all Education majors (SPECIALTY AND SECONDARY) is composed of four major phases. These four (4) phases of study constitute the standardized curriculum that all Education majors should complete. The teacher education program includes the following designated phases of study. Each program has an approved scope and sequence of courses listed in the most current edition of the *Teacher Education Handbook*. Students who wish to become teacher education majors will need to successfully complete a background check prior to any field placements in a school setting.

PHASE ONE

GENERAL EDUCATION REQUIREMENTS

The student completes the general education requirements established by the university. These courses are usually taken during the first two years of enrollment. All students at UMES are expected to complete a common body of academic course work. Teacher education majors should consult their academic advisors and the *Teacher Education Handbook* for the specific courses in their majors. **TOTAL NUMBER OF SEMESTER HOURS REQUIRED: 40-47 Hours**

PHASE TWO

PROFESSIONAL EDUCATION FOUNDATION

A series of core education courses and integrated clinical experiences, are carefully designed to provide all education majors with a critical foundation of knowledge. This knowledge-base is an essential prerequisite to advanced study in the specialization phase. **All education majors are required to complete this standardized core curriculum.** Additional courses may be required by specific programs. A total of 16 credits is required. Students must also pass a criminal background check at this phase in the program and purchase Tk20, the Unit's electronic assessment system. Professional education courses in phases two, three, and four may be repeated only once.

EDCI 200
PSYC 303⁴

EDCI 201¹
PSYC 305⁵

EDCI 306²
PSYC 307

EDSP 200³

PHASE THREE

MAJOR/SPECIALIZATION FOUNDATION - Only students who have formally advanced to Teacher Candidate status are eligible to enroll in the major/specialization phase. Standards have been established for advancement and are published by the Department of Education in the *Teacher Education Handbook*. Students are selectively admitted to this phase of the program. **They must have a grade point average of 2.75 and passing PRAXIS I scores (or passing scores on other Maryland State approved tests) for program entry, in addition to meeting other requirements.** Students must complete and submit a **Teacher Education Application** which can be obtained from the online or from the Department of Education.

¹Does not count toward graduation

²Or approved substitute course

³Special Education majors only

⁴Secondary Majors only

⁵Special Education and Specialty Education majors only

In this phase of study, each student must complete the specific courses required in their major/specialization area. This third phase of study and preparation includes coursework and integrated field work in the student's major area of specialization or concentration.

The courses which comprise the specialization phase organize and structure an in-depth study of a content/specialty area. Prospective teachers are thoroughly trained in both the content area and effective instructional delivery. Once admitted to Teacher Education, teacher candidates must maintain a minimum overall grade point average of 2.75 as well as a minimum 2.75 grade point average in their major.

The curriculum in this phase of study is established jointly by the Department of Education and the respective academic department. The number of required semester hours in the specialization phase of the teacher education program will vary depending on the specialty area. A total of 18 semester hours is required in specialization courses for Specialty majors. A total of 36 semester hours is required for specialization courses for Special Education Majors. These requirements are listed in the *Teacher Education Handbook*.

COMMON REQUIRED SPECIALIZATION COURSES FOR SPECIALTY¹
(Except Special Education and Secondary Majors)

	EDCI 311	EDCI 406	EDCI 409
EDCI 410	EDCI 4XX	EDSP 428	

**COMMON REQUIRED SPECIALIZATION COURSES FOR
SPECIAL EDUCATION MAJORS**

A total of 36 semester hours is required for specialization courses for Special Education Majors. These requirements are listed in the *Teacher Education Handbook*.

EDSP 401	EDSP 402	EDSP 403	EDSP 404
EDSP 414	EDSP 416	EDSP 422	EDSP 426
EDSP 428	EDSP 430	EDSP 431	PSYC 406

CLINICAL AND FIELD EXPERIENCES

The Department of Education requires a variety of clinical and field experiences during which students work in the field, including a full-time teaching internship. Students must be fully prepared to assume the responsibility associated with these experiences. The clinical and field experiences are a critical part of the teacher preparation programs. The *Clinical and Field Experiences Handbook* outlines all expectations and requirements. Students who wish to become teacher education majors will need to successfully complete a background check prior to any field placements in a school setting.

PHASE FOUR

TEACHING INTERNSHIP (SUPERVISED CLASSROOM TEACHING) - The internship is the culmination of the teacher education program. The Teaching Internship consists of two full-time placements in two (2) different classroom settings, in Professional Development Schools. Each setting exposes students to a different age group or level. Students will be assigned to the Teaching Internship based on program requirements and school system availability. In order to be eligible for admission to the Teaching Internship, students must meet the following requirements:

- 1) Minimum 2.75 overall grade point average. Any courses transferred into UMES will be counted as part of the cumulative grade point average.
- 2) Minimum 2.75 grade point average in major.
- 3) Successful completion of the PRAXIS II-Specialty Area Tests. Students must take and pass the PRAXIS II in their content area before being eligible for their Teaching Internship. Cut-off scores are determined by the Maryland State Department of Education. Registration for the PRAXIS II should be completed as early as possible but no later than the semester before the Teaching Internship. Passing scores must be reported to UMES from ETS before the internship begins.
- 4) All courses, with the exception of the Teaching Internship, and Senior Seminar must be completed (i.e., no incomplete grades).
- 5) Two recommendations from Teacher Education faculty.

¹Other Specialty courses are required by specific programs

- 6) Completion of the Application for Teaching Internship.
- 7) Interview with faculty that includes review of candidate's professional dispositions and cultural competencies.

- 8) The Department of Education is committed to providing a quality, supervised internship experience and to providing every student with rich and varied internship options. Every student in a degree-seeking program, who is an Education major, is assigned to an internship on a **full-time basis**. **Students must provide their transportation to all internship and field experience sites.**

SPECIALTY EDUCATION

Art/Music (PreK-12)

EDCI 440 EDCI 450 EDCI 400

Special Education (1-8; 6-12)

EDSP 442 (E) EDSP 450 (S) EDSP 400

SECONDARY EDUCATION

Secondary (7-12)

EDCI 460X/480X (Middle) EDCI470X/490X (High) EDCI 400

CURRICULUM GUIDE FOR SPECIAL EDUCATION
 Preparing Teachers to Work with Students with
 Mild and Moderate Disabilities (grades 1-8; 6-12)

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 101	3	ENGL 102	3
MATH 102	3	SOCI 101	3
ENVS 101	3	BIOL 101	3
HIST 101	3	BIOL 103	1
ARTS 101	3	EDHE 111	3
EDCI 100	<u>1</u>	PSYC 200	<u>3</u>
	16		16

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 203	3	ENGL 305 <u>or</u>	
EDCI 200	3	ENGL 310	3
EDCI 201 ¹	1	PSYC 305	3
EDCI 306	3	PSYC 307	3
POLI 200	3	MATH 210	3
EDSP 200	<u>3</u>	ELECTIVE (I)	<u>3</u>
	16		15

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
EDSP 401	3	EDSP 402	3
EDSP 414	3	EDSP 403	3
EDSP 416	3	EDSP 422	3
EDSP 426	3	PSYC 406	3
PSYC 371	<u>3</u>	Elective	<u>3</u>
	15		15

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
EDSP 404	3	EDSP 400	3
EDSP 428	3	EDSP 442	6
EDSP 430	3	EDSP 450	<u>6</u>
EDSP 431	3		15
Elective	<u>3</u>		
	15		

Total Hours: 122

¹ Does not count towards graduation.

COURSE DESCRIPTIONS IN EDUCATION

EDCI 100 First Year Experience

Credit 1

This course is to provide an opportunity for students to make a seamless transition from high school to college. Essential skills for transition will be explored and discussed. This course will assist students in developing cognitive skills and will assist them in adjusting personally and socially to the college environment. This course will enable first-year students to develop creative and critical thinking skills, and information literacy skills needed to facilitate a successful transition from high school to university. Additionally this course shall facilitate self-awareness and interpersonal communication skills. In addition, to providing information needed for student success at the University, this course serve as a conduit for students entering the field of teacher education. Students will be provided with the prerequisite needed for make a successful transition into the teacher education program. It is designed for all teacher education majors: Agriculture, Art, Biology, Business Education, Chemistry, English, Family and Consumer Sciences, Mathematics, Music, Social Studies, Special Education and Technology Education.

EDCI 200 Introduction to Contemporary Education

Credit 3

This course is a comprehensive overview of the foundations of education in the United States. It incorporates the historical, political, economic, legal, social, philosophical and curricular foundations to provide future educators with an understanding of the teaching profession and the issues and controversies confronting American education today. The topics covered in the course provide novice educators with a broad picture of P-12 education and schooling in the United States. The primary focus is the preparation of reflective teachers who will make informed decisions that will improve and enhance the learning environment for children. Students will have a required field experience in the local public schools.

EDCI 201 PRAXIS Preparation

Credit 1

This course provides training in the content and skills assessed in Praxis I testing in the areas of Reading, Writing, and Mathematics. This course is taken concurrently with EDCI 200. Credit for this course does not count towards graduation.

EDCI 306 Integrating Technology into the Curriculum

Credit 3

This course emphasizes the use of technologies to promote teaching and learning in the P-12 environment. Major software applications, Internet resources, and related technologies will be fully covered. Each class focuses on applications that include useful educational tools and methods for designing and delivering instruction.

EDCI 311 Comprehensive Assessment in Education

Credit 3

This course is designed to present an in-depth study of the purposes, principles, practices, and ethics of student assessment in elementary and secondary classrooms. The course emphasizes the basic concepts and terminology of assessment, as well as classroom applications. The course addresses the purposes, goals, and strategies for developing, administering, and interpreting a variety of assessments, including performance, portfolio, and standardized assessments. An understanding of current trends and practices in state and national assessment is emphasized. Prerequisite: Teacher Candidacy Status.

EDCI 400 Senior Seminar in Education

Credit 3

The senior seminar is designed to supplement and complement the teaching internship phase of the teacher education program. The seminar focuses on the analysis and synthesis of the internship experiences so that teacher interns may successfully integrate their experiences into future practice. Preparation of a professional portfolio, maintenance of a log book and journal, and participation in group synthesis and analysis are required. This course is intended for all secondary and P-12 specialty teacher interns. Students enroll concurrently in the teaching internship and the senior seminar. Prerequisites: Admission to the Teacher Internship. This includes passing the PRAXIS II Tests for the specific content or specialty major.

EDCI 406 Classroom Management

Credit 3

This course introduces the basic theories, techniques, and skills necessary to successfully manage small and large groups of diverse student populations at the elementary and secondary school levels. The focus of the course is on the study and application of effective individual and group management techniques based upon behavioral, cognitive, environmental, developmental, and psychoanalytic theories. Special emphasis is placed on developing supportive learning environments that promote self-esteem and motivate success. Students will have a required field experience in the local public schools. Prerequisite: Teacher Candidacy Status.

EDCI 408 Multicultural Education Credit 3
This course is designed to introduce the theories and dynamics of multicultural education. Ethnic, racial, and cultural diversity in education is explored. Through a global perspective, the impact of changing demographics on the educational system is discussed. Sensitivity and responsiveness to different economic, social, cultural, racial, ethnic, and religious backgrounds are promoted.

EDCI 409 Teaching Reading in the Content Areas: I Credit 3
This course addresses the fundamentals of the reading process, theories, and instructional strategies. It emphasizes the development of vocabulary and comprehension skills, the assessment of student reading levels, and textbook readability, with particular emphasis on the reading of content material at the secondary level. This course is intended for all secondary and P-12 specialty area teacher candidates. This course includes a required field experience. Prerequisite: Teacher Candidacy Status.

EDCI 410 Teaching Reading in the Content Areas: II Credit 3
This course addresses the literacy needs of diverse student populations and includes training in specific strategies to facilitate reading comprehension, incorporate writing to increase reading comprehension, interpret standardized reading test scores, use collaborative learning to promote literacy and content learning, and model processes for assessing literacy growth. It builds on theories and strategies in EDCI 409. A field experience/pre-internship in the area of specialization at a Professional Development School is required. This course is intended for all secondary and P-12 specialty area teacher candidates. Prerequisites: Teacher Candidacy Status and a “C” or better in EDCI 409.

EDCI 42X Curriculum and Instruction in Content Specific Areas Credit 3
This course is an in-depth study of current instructional methods and curricular materials used in teaching content in grades relative to the specific area (i.e., P-12 or 7-12). The focus of the course is on effective program development and instructional delivery. It includes lesson and unit planning, collecting reference and illustrative materials, observing and evaluating teaching, and applying effective strategies and techniques. Additional curricular topics include performance objectives, student outcomes, scheduling, community resources, and specialized equipment and technology. The philosophy, history, and important issues and trends related to the content specific area of education are included. A field experience/pre-internship in the content specific area at a Professional Development School is required. Refer to individual areas for specific course descriptions. Prerequisite: Teacher Candidacy Status.

EDCI 430 Methods and Materials for Teaching Art P-12 Credit 3
This course is an in-depth study of current instructional methods and curricular materials used in teaching art in grades P-12. The focus of the course is on effective program development and instructional delivery and includes lesson and unit planning, collecting reference and illustrative materials, observing and evaluating teaching, and applying effective strategies and techniques. Additional curricular topics include performance objectives, student outcomes, scheduling, community resources, and specialized equipment and technology. The philosophy, history, and important issues and trends related to art education are included. A field experience/pre-internship in art at a Professional Development School is required. Prerequisite: Teacher Candidacy Status.

EDCI 440 Teaching Internship: Specialty Programs (P-12): Elementary Credit 6
The student is assigned to a seven (7) or eight (8) week teaching internship at an elementary level Professional Development School. During this directed teaching experience, the student assumes the role and responsibilities of an educator on a full-time basis in the area of specialization. The internship provides the student with the opportunity to study the application of methods and techniques in a clinical setting through extended supervised practice. The student has the opportunity, under the direction and guidance of a university supervisor and a professional mentor, to refine skills and to develop professional expertise. This course is taken concurrently with EDCI 400 and EDCI 450. Prerequisites: Admission to Teacher Internship. This includes passing the PRAXIS II Tests for the specific specialty major.

EDCI 450 Teaching Internship: Specialty Programs (P-12): Secondary Credit 6
The student is assigned to a seven (7) or eight (8) week teaching internship at a secondary level Professional Development School. During this directed teaching experience, the student assumes the role and responsibilities of an educator on a full-time basis in the area of specialization. The internship provides the student with the opportunity to study the application of methods and techniques in a clinical setting through extended supervised practice. The student has the opportunity, under the direction and guidance of a university supervisor and a professional mentor, to refine skills and to develop professional expertise. This course is taken concurrently with EDCI 400 and EDCI 440. Prerequisites: Admission to Teacher Internship. This includes passing the PRAXIS II Tests for the specific specialty major.

EDCI 460 and EDCI 480 Teaching Internship: Secondary Program (7-12): Middle School Credit 6
The student is assigned to a seven (7) or eight (8) week teaching internship at a Professional Development School at the middle school level. During this directed teaching experience, the student assumes the role and responsibilities of an educator on a full-time basis in the area of specialization. The internship provides the student with the opportunity to study the application of methods and techniques in a clinical setting through extended supervised practice. The student has the opportunity, under the

direction and guidance of a university supervisor and a professional mentor, to refine skills and to develop professional expertise. This course is taken concurrently with EDCI 400 and EDCI 470 or 490. Prerequisites: Admission to Teacher Internship. This includes passing the PRAXIS II Tests for the specific content major.

EDCI 470 and EDCI 490 Teaching Internship: Secondary Programs (7-12) (High School) Credit 6

The student is assigned to a seven (7) or eight (8) week teaching internship at a Professional Development School at the high school level. During this directed teaching experience, the student assumes the role and responsibilities of an educator on a full-time basis in the area of specialization. The internship provides the student with the opportunity to study the application of methods and techniques in a clinical setting through extended supervised practice. The student has the opportunity, under the direction and guidance of a university supervisor and a professional mentor, to refine skills and to develop professional expertise. This course is taken concurrently with EDCI 400 and EDCI 460 or 480. Prerequisites: Admission to Teacher Internship. This includes passing the PRAXIS II Tests for the specific content major.

EDCI 498 Special Topics in Education Credit 3

This course provides an in-depth exploration of selected topics in education based on the needs and interests of the student. Current issues, trends, and research problems structure the focus and content of the course. A comprehensive, field based, independent research or clinical project is required. Prerequisites: Teacher Candidacy Status and permission of the instructor.

EDCI 499 Independent Study in Education Credit 1-6

This course is designed to refine the skills and expand the knowledge base in critical areas within the field of education. This self-directed course of study is individualized to meet the student's academic and professional needs. Working closely with a faculty mentor, the student develops an independent, fully detailed plan of study including goals and objectives. Successful completion of the course requires that the student complete a significant research or clinical project. Prerequisites: Teacher Candidacy Status and permission of the instructor.

SPECIAL EDUCATION

EDSP 200 Introduction to Special Education Credit 3

This course focuses on the intellectual, physical, sensory, social and emotional characteristics and needs of exceptional individuals, including those with disabilities and gifts/talents, from birth through adulthood. Emphasis is placed on a survey of the various exceptionalities as well as on an overview of historical and legislative perspectives and on current and future directions in the field of special education. Educational and supportive services appropriate for exceptional individuals are also presented, as are the roles of general and special educators in the delivery of these services. This course is designed for Teacher Education majors. Students will have a required field experience in the local public schools.

EDSP 400 Senior Seminar in Special Education Credit 3

The senior seminar is designed to supplement and complement the teaching internship phase of the teacher education program. The seminar focuses on the analysis and synthesis of the internship experiences so that teacher interns may successfully integrate their experiences into future practice. Preparation of a professional portfolio, maintenance of a log book and journal, and participation in group synthesis and analysis are required. This course is intended for all special education (1-12) teacher interns. Students enroll concurrently in the teaching internship (EDSP 442 and EDSP 450) and the senior seminar. Prerequisites: Admission to Teacher Internship. This includes passing the PRAXIS II Tests for special education.

EDSP 401 Processes and Acquisition of Reading and Language for Students with Disabilities Credit 3

This course will introduce students to the processes of language development and the relationship and role of language acquisition in reading development for students with disabilities at the elementary and secondary levels. It will analyze the relationship between oral language development, reading acquisition, and written language. In addition, the interactive nature of the reading process, including the impact of phonemic awareness will be addressed. This course is designed for students majoring in special education and includes a required clinical field experience. This course is taken concurrently with EDSP 414, EDSP 416, and EDSP 426. Prerequisite: Teacher Candidacy Status.

EDSP 402 Instruction of Reading and Language for Students with Disabilities Credit 3

This course introduces instruction of reading skills for students with and without disabilities at the elementary and secondary levels. Content includes the development of word attack and comprehension skills and the teaching of expository reading in the content areas. Emphasis is placed on the selection, organization, and evaluation of instructional content, strategies, and activities. This course is designed for students majoring in special education and is taught as part of a core of courses related to assessment and instructional programming. The course includes a required field experience and is course is taken concurrently with EDSP 403, EDSP 422, and PSYC 406. Prerequisites: Teacher Candidacy Status and a "C" or better in EDSP 401.

EDSP 403 Materials for Teaching Reading and Language for Students with Disabilities Credit 3

This course introduces various materials that can be used to provide a variety of reading and language experiences to students with disabilities at the elementary and secondary levels. Both teacher-made and commercial materials are discussed. The use of children's literature, community resources, and parental support will also be explored. Students will have a required field experience in the local public schools. This course is taken concurrently with EDSP 402, EDSP 422, and PSYC 406. Prerequisites: Teacher Candidacy Status and a "C" or better in EDSP 401.

EDSP 404 Assessment, Diagnosis, and Remediation of Reading Problems for Students with Disabilities Credit 3

This course presents an in-depth analysis of assessment, diagnosis, and remediation of reading problems for students with disabilities at the elementary and secondary levels. A thorough understanding of the diagnostic process is explored, as well as remediation techniques for comprehension, vocabulary development, and word attack skills. Attention is given to effective reporting of these results to parents and other professionals. Students will have a required clinical experience. The course is taken concurrently with EDSP 428, EDSP 430, and EDSP 431. Prerequisites: Teacher Candidacy Status and a "C" or better in EDSP 401, EDSP 402, and EDSP 403.

EDSP 414 Psycho-educational Assessment I Credit 3

This course is the first of two three-credit courses in assessment. It provides in-depth instruction relative to the comprehensive psycho-educational process as it is used to identify the educational strengths and deficits of students with disabilities at the elementary and secondary levels. The development, administration, interpretation, and application of psycho-educational testing batteries, using both informal and formal assessment instruments, are emphasized. Norm-referenced, criterion-referenced, and curriculum-based assessment measures are examined. Skills related to the professional reporting and presentation of results are developed. The course has an emphasis on assessment in the areas of social/emotional development, achievement/school performance, general interests, attitudes, and study skills. Students develop a comprehensive case study as part of this course, which also includes a required clinical experience. This course is taken concurrently with EDSP 401, EDSP 416, and EDSP 426. Prerequisite: Teacher Candidacy status.

EDSP 416 Program Development and Instructional Delivery for Students with Disabilities Credit 3

This course is designed to examine the specific programs, instructional strategies, and resources that are appropriate for students with disabilities at the elementary and secondary levels. It addresses the organization and management of special education programs and prepares students to adapt and modify curriculum. Preparing students to work collaboratively as teacher consultants, academic coaches, on interdisciplinary teams, in inclusion classrooms, and in team teaching is also a course focus, as is the development and management of student records (e.g., IEP, IFSP). A required field experience in the local public schools is part of this course. The course is taken concurrently with EDSP 401, EDSP 414, and EDSP 426. Prerequisite: Teacher Candidacy Status.

EDSP 422 Psycho-educational Assessment II Credit 3

This course is the second of two three-credit courses in assessment. It provides in-depth instruction relative to the comprehensive psycho-educational process as it is used to identify the educational strengths and deficits of students with disabilities at the elementary and secondary levels. The development, administration, interpretation, and application of psycho-educational testing batteries, using both informal and formal assessment instruments, are emphasized. Norm-referenced, criterion-referenced, and curriculum-based assessment measures are examined, with an emphasis on statewide assessment procedures. Use of the results to plan instruction is also presented. This course has an emphasis on assessment in the areas of oral language, reading, written language, and mathematics. Skills related to the professional reporting and presentation of results are developed. Students develop a comprehensive case study and an individualized education plan as part of this course, which also includes a required clinical experience. This course is taken concurrently with EDSP 402, EDSP 403, and PSYC 406. Prerequisites: Teacher Candidacy Status and a "C" or better in EDSP 414.

EDSP 426 Instruction of Mathematics for Students with Disabilities Credit 3
This course addresses mathematics for students with disabilities at the elementary and secondary levels. Relevant mathematics content (i.e., early number concepts, arithmetic, consumer mathematics, algebra, and geometry) is presented. The use of technology (e.g., calculators, computers) is also included as is an emphasis on problem solving and making mathematical connections with other content areas. The curriculum standards of the National Council of Teachers of Mathematics are used as the focus of content and pedagogy. Appropriate prescriptive strategies, resources, curricular adaptations, and instructional programming for students with disabilities are emphasized. Students will have a required field experience in the local public schools. This course is taken concurrently with EDSP 401, EDSP 414, and EDSP 416. Prerequisite: Teacher Candidacy status.

EDSP 428 Communication and Collaboration in Special Education Credit 3
This course focuses on the nature of oral and written communication - theories, models, and definitions; the role of the individual and groups in the communication process; and content and settings for communication; various formats and techniques of communication; and the differences in communication styles based on diverse groups. In addition, the course presents effective and ineffective strategies for communication with the opportunity to systematically analyze one's individual communication style as well as that of others. The educational setting serves as the context for developing these effective communication and collaboration skills. The focus of this course is primarily on communication and collaboration between general and special educators, parents, administrators, paraprofessionals and students. This course has a required clinical experience. This course is taken concurrently with EDSP 404, EDSP 430, and EDSP 431. Prerequisites: The student must have Teacher Candidacy status.

EDSP 430 Technology in Special Education Credit 3
This course explores a wide range of assistive and instructional technology applications for students with physical, cognitive, communicative, sensory, and/or multiple disabilities. Students examine the use of technology in combination with effective instructional strategies to enhance learning and promote independence in the areas of academics, mobility, communication, socialization, and participation in home, school and community activities. Students also explore electronic and print resources for assistive and instructional technology information and review research about current practices for implementation of technology-based solutions. Students in this course have a required field experience/pre-internship at a Professional Development School. This course is taken concurrently with EDSP 404, EDSP 428, and EDSP 431. Prerequisites: Teacher Candidacy status and a "C" or better in EDCI 306.

EDSP 431 Instruction of Prevocational/Vocational and Transition Programs for Students with Disabilities Credit 3
This course introduces the basic theories and practices of planning, implementing, and evaluation prevocational and vocational programs for students with disabilities at the elementary and secondary levels. Emphasis is placed on social skill development, prevocational/vocational assessment and instructional strategies, counseling techniques, and other generic skills required for transition programs. Students will have a required field experience/pre-internship at a Professional Development School. This course is taken concurrently with EDSP 404, EDSP 428, and EDSP 430. Prerequisite: Teacher Candidacy Status.

EDSP 442 Teaching Internship in Special Education (Elementary) Credit 6
This seven (7) or eight (8) week clinical internship involves teaching students with disabilities in an elementary setting at a Professional Development School. Students are expected to gradually assume the duties and responsibilities of a special education teacher, which include the following: planning, instruction, assessment, curriculum adaptation, classroom management, communication, and evaluation. The student has the opportunity, under the direction and guidance of a university supervisor and a professional mentor, to refine skills and to develop professional expertise. This course is taken concurrently with EDSP 400 and EDSP 450. Prerequisites: Admission to Teacher Internship. This includes passing the PRAXIS II Tests for special education.

EDSP 450 Teaching Internship (Secondary) Credit 6
This seven (7) or eight (8) week clinical internship involves teaching students with disabilities in a secondary setting at a Professional Development School. Students are expected to gradually assume the duties and responsibilities of a special education teacher, which include the following: planning, instruction, assessment, curriculum adaptation, classroom management, communication, and evaluation. The student has the opportunity, under the direction and guidance of a university supervisor and a professional mentor, to refine skills and to develop professional expertise. This course is taken concurrently with EDSP 400 and EDSP 442. Prerequisites: Admission to Teacher Internship. This includes passing the PRAXIS II Tests for special education.

EDSP 497 Special Topics in Special Education Credit 3
This course provides an in-depth exploration of selective topics in special education based on the needs and interests of the students. Current issues, trends and research problems structure the focus and content of the course. Prerequisites: Special Education major, Teacher Candidacy Status, and permission of the instructor.

EDSP 499 Independent Study in Special Education Credit 1-6
This course is designed to refine and expand the student's skills and knowledge base in a critical area of study in special education. This self-directed course is individualized to meet the student's professional and academic needs. The student develops an independent and detailed plan of study, including goals and objectives, under a faculty mentor's mentorship. Successful completion of a significant research or clinical project is required. Prerequisites: Special Education major, Teacher Candidacy Status, and permission of the instructor.

PSYCHOLOGY

PSYC 200 Introduction to Psychology Credit 3
This course provides a survey of general principles underlying human behavior. It includes study of the nervous system, perception, learning, memory, thinking, emotions, and individual differences in intelligence, aptitude, and personality.

PSYC 301 Child Development Credit 3
This course provides a study of child development from pre-natal development through late childhood, with special emphasis on children of primary/middle school age. The focus of the course is on cognitive, emotional, intellectual, physical, psychological, and social growth and development. Prerequisite: PSYC 200 with a grade of "C" or better.

PSYC 303 Adolescent Psychology Credit 3
This course provides an overview of the special role that adolescence plays in overall development. Emphasis is on the psychological development of the adolescent in school. Prerequisite: PSYC 200 with a grade of "C" or better.

PSYC 305 Developmental Psychology/Online Credit 3
This course presents a lifespan survey of human growth and development, beginning at conception and ending with death with emphasis on intellectual, linguistic, emotional, perceptual, social and personality development. Prerequisite: PSYC 200 with a grade of "C" or better.

PSYC 307 Educational Psychology Credit 3
This course examines scientific research and psychological principles as they apply to teaching and learning. Topics include theories of learning, intelligence, memory, creativity, human diversity, and other factors influencing effective instruction and learning. Clinical/classroom experiences provide opportunity to apply learning theory within an educational framework. Prerequisites: PSYC 200 with a grade of "C" or better.

PSYC 371 Abnormal Psychology/Online Credit 3
This course examines the concepts of normality, abnormality, and psychopathology; symptoms syndromes; and theory and research in psychopathology and psychotherapy. The nature, identification, etiology and treatment of psychological disorders are emphasized. Prerequisite: PSYC 200 with a grade of "C" or better.

PSYC 401 Introduction to Personality Theory Credit 3
This course presents the study of personality from various points of view: biological, experimental, social, and humanistic. It provides an overview of theory and empirical research in the study of personality. Prerequisite: PSYC 200 with a grade of "C" or better.

PSYC 406 Applied Behavioral Analysis Credit 3
The purpose of this course is to present an array of behavior management techniques that will enable prospective educators to manage the instructional, psychological, and behavioral needs of students. The course explores a variety of theoretical models. Students will have a required field experience in the local public schools. This course is taken concurrently with EDSP 402, EDSP 403, and EDSP 422. Prerequisites: SPED majors with Teacher Candidacy Status

PSYC 497 Special Topics in Psychology Credit 3
This course provides an in-depth exploration of selective topics in Psychology based on the needs and interests of the students. Prerequisites: A "C" or better in PSYC 200 and two additional Psychology courses, Senior Standing, and the permission of the instructor.

DIRECTORY OF FACULTY

- Agnew, Mary L.** **Associate Professor**
B.A., Central Michigan University; M.Ed., University of New Hampshire; Ph.D., University of Georgia
- Bing, Sally B.** **Associate Professor**
B.A., University of Vermont; M.Ed., University of Georgia; Ph.D., University of Georgia
- Bowers, Cheryl D.** **Assistant Professor**
B.A., Mount Holyoke College; M.S., University of Pennsylvania; Ph.D., University of Pennsylvania
- Carrington, Andrew T.** **Professor**
B.S., Hampton University; M.A., Hampton University; Ed.D., Virginia Polytechnic Institute and State University
- Goslee, Patricia A.** **Lecturer**
B.S., University of Maryland Eastern Shore; M.Ed., Wilmington College; Ed.D., Wilmington University
- Larson, Wilbert C.** **Associate Professor**
B.S., Augustana College; M.Ed., Creighton University; Ph.D., University of Nebraska
- Poole-Sykes, Kimberly J. Poole** **Associate Professor**
B.S., University of Maryland Eastern Shore; M.S., Southern Illinois University at Carbondale; Rh.D., Southern Illinois University at Carbondale
- Stuft, Derry** **Associate Professor**
B.A., Rutgers College; M.Ed., Indiana University of Pennsylvania; Ed.D., Indiana University of Pennsylvania
- Wilkins-Church, Phyllise J.** **Lecturer**
B.S. Elizabeth City State University; M.Ed. Delaware State University; Ed.D. Nova Southeastern University
- Verbeke, Karen A.** **Professor, Chair & Director of Teacher Education**
B.A., The Pennsylvania State University; M.Ed., University of Maryland; Ph.D., University of Maryland

DEPARTMENT OF ENGLISH AND MODERN LANGUAGES

<http://www.umes.edu/SAPS>

Dr. Betty Taylor-Thompson, Interim Chairperson

MISSION

The Mission of the Department of English and Modern Languages is to provide service courses for the various departments; to prepare teachers of English for middle and secondary schools; to prepare individuals for graduate schools, professional schools, and career opportunities; and to provide outreach services for surrounding schools and communities.

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The objectives of the Department of English and Modern Languages are as follows:

1. To provide opportunities for students to develop facility in communicative skills: reading, writing, speaking and listening;
2. To provide opportunities for students to speak and write a foreign language effectively;
3. To provide opportunities for students to understand, interpret, and analyze literary material;
4. To prepare students for graduate study and professional careers;
5. To prepare students for teaching middle and secondary school English.

DEGREES OFFERED

Bachelor of Arts – English (Non-Teaching)

Bachelor of Arts – English Education

DEPARTMENTAL REQUIREMENTS

UMES offers the Bachelor of Arts (B.A.) degree in English, non-teaching and English Education. In addition to the completion of the 41 required credits in General Education, all students are expected to complete 79 credit hours from a common body of academic coursework. The 79 credit hours must consist of 33 credit hours selected from the program core requirements, 12 credit hours of English electives, 12 credit hours in either French or Spanish language instruction, and 22 credit hours of free electives.

UMES offers the Bachelor of Arts (B.A.) degree in English Education. In addition to the completion of the 41 required credits in General Education, all students are expected to complete 85 credit hours from a common body of academic coursework. The 85 credit hours must consist of 30 credit hours selected from the program core requirements, 6 credit hours of English electives, 6 credit hours in either French or Spanish language instruction, and 43 credit hours of professional education requirements.

CAREER OPPORTUNITIES

The teaching program is designed to prepare individuals to become teachers of English/Language Arts in middle and high schools. The program of study provides the prospective English teacher with a broad and integrated liberal arts background, a concentrated study of English literature and language, and the techniques, knowledge, and experience to help middle, junior, and senior high school students develop to their highest potential.

ENGLISH EDUCATION

DEPARTMENTAL REQUIREMENTS

In addition to the completion of the 41 required credits in General Education, all students are expected to complete 85 credit hours from a common body of academic coursework. The 85 credit hours must consist of 30 credit hours selected from the program core requirements, 6 credit hours of English electives, 6 credit hours in either French or Spanish language instruction, and 43 credit hours of professional education requirements.

CAREER OPPORTUNITIES

Undergraduate English Education graduates are qualified to teach middle school language arts and high school English.

COMMON REQUIRED COURSES

One (1) ENGL 200, 300, or 400 Level Course¹

Two (2) ENGL 400 Level Courses²

Any two-semester sequence in French or Spanish³

REQUIRED MAJOR COURSES⁴

ENGL 204-215	ENGL 301 or
ENGL 218	ENGL 302
	ENGL 321 or
	ENGL 322
	ENGL 328 or
	ENGL 329
	ENGL 330
	ENGL 346 or
	ENGL 380
	ENGL 347

¹Student must complete 3 credit hours.

²Student must complete 6 credit hours.

³Student must complete 6 credit hours.

⁴Courses are strictly column based.

CURRICULUM GUIDE FOR ENGLISH EDUCATION

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 101	3	ENGL 102	3
FREN 101 <u>or</u>		FREN 102 <u>or</u>	
SPAN 101	3	SPAN 102	3
GEN ED CURR AREA I ¹	3	PSYC 200	3
GEN ED CURR. AREA III	3	GEN ED CURR AREA III ²	4
GEN ED CURR AREA IV	3	GEN ED CURR AREA I ³	<u>3</u>
ENGL 100	<u>1</u>		16
	16		

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
EDCI 200	3	ENGL 301 <u>or</u>	
EDCI 201	1	ENGL 302	3
ENGL 203	3	ENGL 200-400 Elective	3
PSYC 307	3	ENGL 330	3
GEN ED CURR. AREA II ⁴	3	ENGL 204-215	3
GEN ED CURR. AREA VI	<u>3</u>	GEN ED CURR AREA V	<u>3</u>
	15		15

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 204-215	3	EDCI 406	3
ENGL 321 <u>or</u>		EDCI 409	3
ENGL 322	3	ENGL 328 <u>or</u>	
ENGL 218	3	ENGL 329	3
ENGL 400 Elective	3	ENGL 346 <u>or</u>	
PSYC 303	<u>3</u>	ENGL 380	3
	15	ENGL 400 Elective	3
		EDCI 306	<u>3</u>
			18

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
EDCI 311	3	EDCI 400	3
EDCI 410	3	EDCI 480B	6
EDCI 425B	3	EDCI 490B	<u>6</u>
EDSP 428	3		15
ENGL 347	<u>3</u>		
	15		

Total Credits Hours: 126

¹Student must select from GEN ED CURR AREA I:A.

²Student must select one science course and one laboratory course.

³Student must select from GEN ED CURR AREA I:B—History.

⁴Student must select from GEN ED CURR AREA II:A.

ENGLISH NON-TEACHING

DEPARTMENTAL REQUIREMENTS

In addition to the completion of the 41 required credits in General Education, all students are expected to complete 79 credit hours from a common body of academic coursework. The 79 credit hours must consist of 33 credit hours selected from the program core requirements, 12 credit hours of English electives, 12 credit hours in either French or Spanish language instruction, and 22 credit hours of free electives.

CAREER OPPORTUNITIES

Because of literature's emphasis on human values and human interaction, graduates are prepared to work in a variety of occupations including publicity, personnel, research, sales, teaching and training. Students with backgrounds in liberal studies are potential candidates for executive and management positions. Undergraduate English majors often elect to enter graduate school in library science, law, medicine, business, and international affairs, as well as English and communications. An English major has much to offer that is essential to our society and has a wide, rather than narrow, choice of career opportunities.

COMMON REQUIRED COURSES

ENGL 200, 300, or 400 Level Course¹

Any four-semester sequence in French or Spanish.²

REQUIRED MAJOR COURSES³

ENGL 204-215	ENGL 301 or ³	ENGL 327/H
ENGL 218	ENGL 302 or	ENGL 346 or
	ENGL 321	ENGL 380
	ENGL 322/H or	ENGL 401
	ENGL 328 or	ENGL 412
	ENGL 329	ENGL 413
	ENGL 330	

¹Student must complete 12 credit hours.

²Student must complete 12 credit hours.

³The choice of **or** identified in Required Major Courses is strictly columns base.

**CURRICULUM GUIDE FOR ENGLISH
(NON-TEACHING)**

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 101	3	ENGL 102	3
GEN CURR AREA I	3	ENGL 104	3
GEN CURR AREA II ¹	3	GEN CURR AREA II ²	3
GEN CURR AREA III ³	3	GEN CURR AREA III	4
ENGL 100	1	EXSC 111 ⁴	<u>3</u>
MATH 102 or			16
MATH 109	<u>3</u>		
	16		

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 203	3	GEN CURR AREA VI	3
ENGL 204-215	3	ENGL 204-215	3
FREN 101 or		ENGL 218	3
SPAN 101	3	ENGL 305/Online or	
GEN CURR AREA I	3	ENGL 310/Online	3
Elective	<u>3</u>	FREN 102 or	
	15	SPAN 102	<u>3</u>
			15

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 301 or		ENGL 327	3
ENGL 302	3	ENGL 328 or	
ENGL 321 or		ENGL 329	3
ENGL 322	3	ENGL 401	3
ENGL 330	3	ENGL 412 or	
ENGL 346 or		ENGL 413	3
ENGL 380	3	FREN 202 or	
FREN 201 or		SPAN 202	<u>3</u>
SPAN201	<u>3</u>		15
	15		

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL Elective	3	ENGL Elective	3
ENGL Elective	3	ENGL Elective	3
Elective	3	Electives ⁵	<u>7</u>
Elective	3		13
Elective	<u>3</u>		
	15		

Total Credit Hours: 120

¹Student must choose from GEN CURR AREA II:A

²Student must choose from GEN CURR AREA II:B

³Student must choose from the Natural Sciences.

⁴Course **cannot** be repeated for credit.

⁵ Or more credits; combinations of 1, 2 or 3 credit courses are acceptable to complete required credit count.

COURSE DESCRIPTIONS IN ENGLISH AND MODERN LANGUAGES

ENGLISH

- ENGL 101 Basic Composition I Credit 3**
This course is designed to review the fundamentals of grammar, punctuation, and conventional usage, and to provide skills of organization and development in writing. Adequate opportunity for written analysis and oral discussion of selected examples of prose and creative writing are provided to encourage an interest in literature and the development of a critical attitude toward literature in general. A research paper will be required.
- ENGL 101 Honors English Composition I Honors Credit 3**
The major goal of this course is to develop proficiency in expository writing, particularly the communication of ideas in clear, precise language that demonstrates advanced knowledge of organization, grammar, and usage. This course satisfies the "Statement of Expectations" for freshman writing.
- ENGL 102 Basic Composition II Credit 3**
This course continues the study of basic elements of written composition, especially organization and development. Central to the course is the examination of selections from prose, poetry and drama. Prerequisite: ENGL 101.
- ENGL 102 Honors English Composition II Honors Credit 3**
This course is a continuation of ENGL 101H. The course will review modes of expository writing with emphasis on the research paper. The major goal is to develop proficiency in critical writing.
- ENGL 104 Introduction to Telecommunications/Online Credit 3**
This course concentrates on the history of telecommunications, regulation, and current policies and procedures. It is a prerequisite for most telecommunications courses.
- ENGL 203 Fundamentals of Contemporary Speech Credit 3**
This course requires the preparation and delivery of short original speeches, outside readings and reports. It is recommended that this course be taken during the sophomore year. Prerequisites: ENGL 101 and ENGL 102.
- ENGL 204 Introduction to Fiction Credit 3**
This course is an introduction to the development of fiction with concentration on several major fiction writers. Prerequisites: ENGL 101 and ENGL 102.
- ENGL 205 Introduction to Drama Credit 3**
This course is an introduction to drama around the world through reading, analyzing, viewing, and performance. Prerequisites: ENGL 101 and ENGL 102.
- ENGL 206 Introduction to Poetry Credit 3**
This course is an introduction to the development of poetry with concentration on several major poets. Prerequisites: ENGL 101 and ENGL 102.
- ENGL 207 Introduction to Creative Writing Credit 3**
This course provides an introduction to various techniques used by successful writers of all genres with the object of assisting students in developing and improving their technique. Prerequisites: ENGL 101 and ENGL 102.
- ENGL 215 Introduction to Film Credit 3**
This course involves a study of the motion picture as an art form and as an influence on society. Basic concepts of organization, structure, and techniques of editing are examined through the reading of selected material and the viewing of a number of short films and excerpts from feature films. The course moves from the basic psychology of visual perception through the history, theory, and critical standards of film. Prerequisites: ENGL 101 and ENGL 102.
- ENGL 218 Approaches to Grammar Credit 3**
This course provides a comprehensive review of traditional English grammar and is designed particularly for prospective teachers and writers. Prerequisites: ENGL 101 and ENGL 102.
- ENGL 236 Interviewing Credit 3**
This course is a study of methods used to prepare for and conduct interviews for articles in periodicals. Emphasis is placed on ways to structure a set of questions to elicit information and conduct an effective interview. Prerequisite: ENGL 104.

- ENGL 237 Radio Production and Programming Credit 3**
This course involves recording and control of sound in studios and on location, including introduction to radio production equipment and creative mixing and editing of multiple sound tracks. This course examines station organization, staff job descriptions, and responsibilities, along with station operation techniques. Prerequisite: ENGL 104
- ENGL 238 TV Production and Programming Credit 3**
This is a laboratory course designed to expose the student to each production position in a TV studio, including director, camera operator, audio operator, and video editor. Prerequisite: ENGL 104
- ENGL 239 Introduction to Broadcast Performance Credit 3**
This course is a study of communications theory and its application to the preparation, presentation, and criticism of radio and television performance. The course includes basic formats of broadcasting news, interviews, music, commercials, public affairs, and entertainment features. Prerequisites: ENGL 104.
- ENGL 241 Basic News writing and Reporting Credit 3**
This course is an introduction to the structure and organization in writing news for on-air presentation. The course includes news gathering techniques and ethical issues. Prerequisites: ENGL 104
- ENGL 301 American Literature I Credit 3**
This course is a survey of the major American authors and their works from the beginning of American civilization to Whitman. Prerequisites: ENGL 101 and ENGL 102.
- ENGL 302 American Literature II Credit 3**
This course is a survey of the major American authors and their works from Whitman to the present. Prerequisites: ENGL 101 and ENGL 102.
- ENGL 303 Broadcasting Management Credit 3**
This course explores theories of management. It involves study and analysis of special problems and situations confronting the manager of a broadcast or cable facility in the administration of personnel in various station departments. Prerequisite: ENGL 104
- ENGL 305 Technical Writing/Honors/Online Credit 3**
This web-based course concentrates on the techniques of expository writing in the preparation of technical material. Among the areas of concentration are writing to support graphic illustrations, writing to clarify statistical information, and writing to explain process. Students are introduced to the selective use of the library and basic research facilities, particularly the use of periodical indexes and selective bibliographies. The course is open to all degree-seeking and special students who have successfully completed the Freshman and Sophomore years and who have satisfactorily completed ENGL 101, ENGL 102, and ENGL 203.
- ENGL 310 Advanced Composition/Honors/Online Credit 3**
This course involves a study of prose techniques such as definition, classification, analysis, and process analysis. It includes the reading of model documents (essays, news stories, etc.) and a substantial amount of practice of expository writing. The course is open to all students who have successfully completed ENGL 101 and ENGL 102.
- ENGL 311 Argumentation and Persuasion Credit 3**
This course is designed to reflect and refine current theory and practice in argumentation and debate. Students develop conceptual apparatus to apply general principles as required by circumstances. The course blends theoretical explanation and practical advice. Students must master the basic terms and theories common to all argumentation which are necessary as a prelude to the more specific study in academic debate. Subsequently, the ultimate purpose of the course is to help students learn to become effective advocates. Prerequisite: ENGL 203
- ENGL 312 Group Discussion Credit 3**
Group discussion provides students with the knowledge and practical experience necessary to enable them to work with discussion groups as active and productive participants. The students will be knowledgeable of the theoretical grounding and participate in a variety of roles as a discussion-group participant. Because the course is designed with student-oriented activities as an integral part of the structure, active class participation is mandatory. Prerequisite: ENGL 203

- ENGL 317 Shakespeare Credit 3**
 This course examines characteristics and qualities of selected works of Shakespeare. Emphasis is generally placed on the more significant tragedies, comedies and histories within the context of the Elizabethan world view. [offered every Fall & Spring]
 Prerequisites: ENGL 101 and ENGL 102.
- ENGL 319 Theater Practicum Credit 1**
 This course is an opportunity for acting and technical experience through Participation Theater performed in front of a live audience. Prerequisite: Permission of the Instructor.
- ENGL 321 English Literature I Credit 3**
 This course involves a survey of selected authors and works in English Literature from the beginning through the 18th Century.
 Prerequisites: ENGL 101 and ENGL 102.
- ENGL 322 English Literature II Credit 3**
 This course is a continuation of ENGL 321 dealing with English Literature since the Restoration. This course may be substituted for ENGL 321 by English majors. Prerequisites: ENGL 101 and ENGL 102.
- ENGL 324 Literature and Film Credit 3**
 This course examines the relationship between literature and film, with particular emphasis on the problems and procedures inherent in the transition of novels and short narratives into screenplays. Prerequisites: ENGL 101 and ENGL 102.
- ENGL 325 Literary Criticism Credit 3**
 This course entails the study of various critical approaches to literature, such as textual, archetypal, psychological, and sociological. Prerequisites: ENGL 101 and ENGL 102.
- ENGL 327 African American Literature Credit 3**
 This course provides a survey of Black American Literature encompassing both oral tradition and written literature. Attention is given to the genres of poetry, drama, slave narrative, novel, and essay. Prerequisites: ENGL 101 and ENGL 102.
- ENGL 328 World Literature I Credit 3**
 This course is an introductory study of major movements and genres in Eastern, Western, and African Literatures from ancient times through the Western Renaissance, with the objective of helping students to gain knowledge of the culture of people other than American. Prerequisites: ENGL 101 and ENGL 102.
- ENGL 329 World Literature II Credit 3**
 This course is a continuation of English 328. It deals with World Literature since the Western Renaissance. Prerequisites: ENGL 101 and ENGL 102.
- ENGL 330 Advanced Public Speaking Credit 3**
 This course involves a study of rhetorical principles and models of speech composition in conjunction with the preparation and presentation of specific forms of public address. Prerequisites: ENGL 101, ENGL 102, and ENGL 203.
- ENGL 332 The African Writer Credit 3**
 This course focuses on contemporary African literature, with special emphasis on the role of the writer. The course includes many of the major African literary works (fiction, poetry, and drama) of the last sixty years. The course also focuses on the African writer's unique role as creator of functional art. Prerequisite: ENGL 327H.
- ENGL 333 Principles of Photojournalism Credit 3**
 In this course students gain an understanding as well as a working vocabulary of the historic, formal, and psychological aspects of photojournalism using still photography, video and film. Basic concepts of organization, framing, techniques of editing, etc. are examined through the reading and viewing of selected materials (photo stills, film & video) as well as the practical experience of supervised projects. Prerequisites: ENGL 104.

- ENGL 336 Computer Graphics I Credit 3**
 This is an introductory level course in computer generated graphic design and desktop publication. Through a “hands-on” approach, the student develops a basic knowledge of the various application programs of desktop publication and illustration using Macintosh computers. The student also develops the ability to create computer generated original art and learn the manipulation of scanned images, original digital camera images, basic design principles, and techniques such as layout, typography and graphic production used in various commercial arts fields.
- ENGL 337 Computer Graphics II Credit 3**
 Computer Graphics II is a continuation of Computer Graphics I (English 336) and the course work builds on the skills learned in the first semester. Further skills are gained and then applied to applications such as: PageMaker & Quark Express (used for layout design); Photoshop and Illustrator (illustration applications); After Effects & Gif Builder (introduction to video and multimedia & computer animation); and BB Edit (web page design). The course also builds on the student’s knowledge of basic design principles and techniques in design and graphic production generally started during the first semester. Prerequisite: ENGL 336
- ENGL 345 Special Topics in Literature Credit 3**
 Structured around rotating topics, this course involves an intensive study of the literary works of various authors. Prerequisites: ENGL 101, ENGL 102 and permission of the instructor.
- ENGL 346 History of the English Language Credit 3**
 This course covers major developments in the history of English to the modern period with consideration of important changes and principles of development in phonology, syntax, and semantics. Prerequisites: ENGL 101 and ENGL 102.
- ENGL 347 Adolescent and Adult Literature Credit 3**
 An eclectic survey of fiction and other forms of literature written primarily for adolescents (ages 10 through 14) and young adults (ages 15-18), the course explores and examines themes and ideas in literature relevant to the period prior to adulthood, utilizing the principles of contemporary literary criticism. The course is intended for English Education majors but is open to all students who meet the prerequisites. Prerequisites: successful completion of ENGL 101 and ENGL 102.
- ENGL 351 Communications Design Survey Credit 3**
 This course is an introduction to the study of visual communications. It involves conceptualization, graphic imagery, aesthetics, and symbolism for the communication of information through graphic design, with specific emphasis on the relationship of graphic design to advertising. Problem-solving projects related to the design profession are required. Prerequisites: ENGL 336 and ENGL 337.
- ENGL 380 Introduction to Language Science Credit 3**
 This course provides an introductory survey of contemporary linguistics with special focus on present-day American English. Prerequisites: ENGL 101 and ENGL 102.
- ENGL 401 Modern Drama Credit 3**
 This course is designed to give an overview and understanding of Modern Drama from Ibsen to the present. Prerequisites: ENGL 101 AND ENGL 102.
- ENGL 404 Studies in Drama Credit 3**
 This course allows opportunities for a variety of topics pertinent to drama. An analysis of drama from around the world through reading, viewing, performance, and various forms of artistic expression will be explored. The course also concentrates on specific social and political that foster the various types of drama produced during a particular period. Prerequisites: ENGL 101, ENGL 102 and ENGL 205.
- ENGL 405 Studies in Film Credit 3**
 This course provides an in-depth examination of some particular aspect of film. In any given semester the course may concentrate on, but by no means be limited to, such diverse topics as American film genre, the work of a particular film director, or literature-to-film transition. Prerequisites: ENGL 101, ENGL 102 and ENGL 215.
- ENGL 408 Studies in Poetry Credit 3**
 This course traces the development of poetry with concentration on several major poets. Prerequisites: ENGL 101, ENGL 102, and ENGL206.

ENGL 412 Commonwealth Literature Credit 3
This course involves intensive study of the works of writers from commonwealth countries. Attention is paid to the evolution of the author's canon, the effects on the literary context, the relationship between the literary works and the historical and cultural context of the writer. Prerequisites: ENGL 101 and ENGL 102.

ENGL 413 The Novel - East and West/Online Credit 3
This is a multicultural course that examines novels as a global form that speaks for the aspirations of the modern middle class individual and criticizes social abuses. Comparison of novels from America, Africa, Europe, and Asia are made. [Offered every Spring] Prerequisites: ENGL 101 and ENGL 102.

ENGL 472 Internship Credit 3-12
This course is an internship in various study areas arranged by and with permission of the instructor. Students wishing to travel abroad may petition for Foreign Language credit under this course. See Department Chair for details. Prerequisites: ENGL 104, ENGL 203 & permission of the instructor.

ENGL481 Dramatic writing for Film and TV Credit 3
This course is designed for students who want to learn to take ideas and develop them into treatments, screen-plays, and other verbal and visual forms. The class is conducted as a workshop; students' work is discussed in an informal atmosphere, and selected films are screened. Through the workshop format, students are encouraged to find their creative direction. Prerequisite: Successful Completion of ENGL 101 & ENGL 102 and consent of the Instructor. Enrollment is limited to seventeen students.

ENGL 499 Independent Research in English Credit 1-3
This course provides a vehicle to enable the student to range academically as far as interests and preparation carry him on a topic agreed upon by the instructor and student in the area of English and Modern Languages. The student is required to meet and confer with the instructor on specified conference dates. Limited enrollment. Prerequisite: permission of instructor.

FRENCH

FREN 101 Fundamentals of French I Credit 3
This course provides for the acquisition of basic skills in the language through drills in pronunciation, grammar, and translation. Laboratory work is required. It is recommended that students who have two or more years of high school French take an exam for credit.

FREN 102 Fundamentals in French II Credit 3
This course is a continuation of French 101. This course provides for the acquisition of basic skills in the language through drills in pronunciation, grammar and translation. Laboratory work is required. It is recommended that students who have two or more years of high school French take an exam for credit. Prerequisite: C or better in FREN101

FREN 201 Intermediate French I Credit 3
This course involves a review of grammar and pronunciation and involves graded readings of modern prose. Prerequisite: C or better in FREN 101 and FREN 102 or the equivalent.

FREN 202 Intermediate French II Credit 3
This course provides a review of idiomatic expressions, applications of language skills to reading, composition, and class discussion. Prerequisite: C or better in FREN 201 or equivalent.

FREN 301 Conversation and Composition Credit 3
This course focuses on the development of conversational proficiency in French, development of writing skills through written reports on current events and focuses on literary topics. Prerequisites: C or better in FREN 101, 102, 201 and 202, or permission of the instructor.

FREN 302 Translation Credit 3
This course is designed to develop advanced skills through training in translation and interpretation. Students translate French texts from different fields with emphasis on grammar and literary quality. They also practice translation from English into French. Prerequisites: C or better FREN 101, 102, 201 and 202, or permission of instructor.

FREN 401 French for the Business World

Credit 3

This course is an introduction to the study of terminology used in business, and styles used in commercial, private and official formats for correspondence and various common business documents. Prerequisites: C or better in FREN 302 or permission of the Instructor

FREN 402 Writers of French-Speaking Africa and the Caribbean

Credit 3

This course involves the study of selected novels expressing the culture and the aspirations of the French speaking people of Africa and the Caribbean. Prerequisites: C or better in FREN 301 and FREN 302 or permission of the Instructor.

SPANISH

SPAN 101 Fundamental of Spanish I

Credit 3

This course provides for the acquisition of basic skills in the language through drills in pronunciation, grammar, and translation of elementary prose. Lab work is required. To receive credit for this course, the student must also complete SPAN 102. It is recommended that students who have two or more years of high school Spanish take an exam for credit.

SPAN 102 Fundamentals of Spanish II

Credit 3

This course provides for the acquisition of basic skills in the language through drills in pronunciation, grammar and translation. Lab work is required. To receive credit for this course, the student must also complete SPAN 101. It is recommended that students who have two or more years of high school Spanish take an exam for credit. Prerequisite: C or better in SPAN101

SPAN 201 Intermediate Spanish I

Credit 3

This course provides a review of grammar and pronunciation. The course involves graded readings of modern prose. Prerequisites: C or better in SPAN 101 and SPAN 102 or equivalent.

SPAN 202 Intermediate Spanish II

Credit 3

This course is a review of idiomatic expressions, and applications of language skills to reading, composition, and class discussion. Prerequisites: C or better in SPAN 101, SPAN 102 and SPAN 201.

SPAN 301 Spanish Conversation and Composition

Credit 3

This course is designed for the development of conversational proficiency in Spanish. It further focuses on the development of writing skills through reports on current events and on literary topics. Prerequisites: C or better in SPAN 101, 102, 201 and 202, or permission of the Instructor.

SPAN 302 Translation/Online

Credit 3

This course is designed to develop advanced skills through training in translation and interpretation. Students translate Spanish texts from different fields with emphasis on grammar and literary quality. They also practice translation from English into Spanish. Prerequisites: C or better in SPAN 101, 102, 201 and 202, or permission of the Instructor.

SPAN 401 Spanish for the Business World

Credit 3

This course is an introduction to the study of terminology used in business, and styles used in commercial, private and official formats for correspondence and various common business documents. Prerequisites: C or better in SPAN 302 or permission of the Instructor.

SPAN 402 Writers of Spanish Expression-Spain/Latin America

Credit 3

This course is a study of selected novels expressing the culture and aspirations of the Spanish-speaking people of Spain and Latin America. Prerequisites: C or better in SPAN 302 or permission of the Instructor.

THEATER ARTS

THAR 101 Introduction to Theater

Credit 3

The course presents a survey of theater through the exploration of the components of a production, acting, set, costumes, lighting, sound, script, and the audience. Prerequisite: Permission of instructor.

THAR 102 Stagecraft

Credit 3

This course involves an investigation and application of the visual effects of stage scenery in dramatic productions with exercises in set designing. Practical experiences within current productions are offered. Prerequisite: Permission of instructor.

THAR 201 History of Theater and Drama

Credit 3

This course provides a study of the cultural forms of theater from the Greek period to the end of the Renaissance, with analysis of selected plays. Selected plays from all major periods are read and critically analyzed. Prerequisite: Permission of instructor.

THAR 202 History of Theater and Drama II

Credit 3

The course offers a study of the cultural forms of theater from the end of Renaissance to the present, with analysis of selected plays. Selected plays from all major periods are read and critically analyzed. Prerequisite: Permission of instructor.

THAR 203 Acting I

Credit 3

This course provides a survey of acting practices along with basic training in the elements of acting, with preliminary studies in movement, pantomime, interpretation, and the use of the voice. Students participate in scenes or plays. Prerequisite: Permission of instructor.

THAR 204 Acting II

Credit 3

This course is a continuation of Acting I with more advanced instruction in movement, interpretation, and voice usage. Acting technique is stressed. Students participate in selected plays. Prerequisite: Permission of instructor.

DIRECTORY OF FACULTY

- Buerkle, Marilyn** Lecturer, Visual Information Specialist
B.A., Edinboro University of Pennsylvania; M.A., American University
- Champagne, Carole A.** Assistant Professor
B.S., Wake Forest University; M.Ed., M.A., Ph.D., University of Massachusetts, Amherst
- Cooledge, Dean R.** Assistant Professor
B.A., Trinity University; M.A., Ph.D., University of Arizona
- Cooledge, Susan** Assistant Professor
B.S., Elizabethtown College; M.S., Ph.D., University of Arizona
- Dameron-Johnson, Della** Assistant Professor
B.S., Lincoln University, M.A., Northern Illinois University; Ph.D., University of Maryland College Park
- Davis, Joseph** Lecturer
B.A., Henderson State University, M.A., Memphis State University
- Green, Melissa** Lecturer
B.A., St Mary's College; M.A., Salisbury University;
- Green, Rene Pope** Lecturer
B.A., University of Pittsburg, BFA, The City College of New York; MAT, Lehman College
- Gregory, Nydia**..... Lecturer
B.A., University of Puerto Rico; M.A., Assumption College
- Harned, Courtney** Lecturer
B.A., MAT, University of Virginia
- Johnson, David** Assistant Professor
B.S., North Carolina A&T State University; M.Ed., Salisbury University; Ph.D., The Union Institute & University
- Johnston, Sandra** Lecturer
B.A., M.Ed., Shippensburg University; M.A., Salisbury University
- Miller, Bonnie**..... Lecturer
B.A., M.A., Salisbury University
- Okafor, Clement** Professor
Ph.D. Harvard University
- Pinhey, Kaye**..... Director, Instructional Technology
B.S., M.S., University of Dhaka
- Rock, Lorna**..... Visiting Lecturer
B.A., Millsaps, College; MAT, Boston University
- Rose, Wilton** Lecturer
B.F.A., New York University
- Seabrook, Barbara** Associate Professor
B.S., M.Ed., Shippensburg University; M.Ed., Ed.D., Wilmington College
- Shoge, Simeon** Lecturer
B.A., University of Ibadan; MFA., Columbia University; M.A., Washington College
- Smith, Terry** Assistant Professor
B.A., M.A., Salisbury University; Ph.D., Indiana University of Pennsylvania

Taylor, Nicole **Assistant Professor**
B.A., M.A., University of the District of Columbia; Ph.D., Howard University

Taylor-Thompson, Betty **Interim Chair**
BS, Fisk University, MLS, Atlanta University, MA and Ph.D., Howard University

Department of Fine Arts

<http://www.umes.edu/SAPS>

Mr. Ernest R. Satchell, Chairperson

MISSION

The mission of the Fine Arts Department is to provide teachers for elementary and secondary schools; to prepare students for professional non-teaching careers in Commercial Ceramics, Graphic Illustration, Commercial Photography and Sequential Arts; to provide students for graduate and Professional schools; to provide service courses for other departments; and to provide outreach services for surrounding schools and communities. In addition the Fine Arts Department provides exhibits, cultural events and other programs necessary to promote art and make the university and general community artistically richer.

OBJECTIVES

Students having completed the Art Education Program will:

1. Have the facility to understand and appreciate the philosophical nature of art, its meaning, and contribution to the individual and society in contemporary and past cultures.
2. Create, critically analyze, and evaluate works of art from a wide variety of media.
3. Develop, organize, evaluate, and administer effectively an art education curriculum in grades PreK-12.
4. Demonstrate an understanding of the developmental stages of art through which children and adolescents pass.
5. Demonstrate a working knowledge of safety precautions and hazards that are unique to studio work.
6. Design and deliver developmentally appropriate experiences in art for children in grades PreK-12.

Students having completed the Applied Design program will demonstrate the ability to do the following:

1. Design, produce, and market high-quality functional ceramic ware for both the wholesale and retail markets.
2. Operate and manage a small business.
3. Work as Photo. journalists or as commercial Photographers.
4. Work at management level positions in the applied design field.
5. Integrate conventional illustrations with high tech digital illustrations.
6. Demonstrate mastery of computer software, such as Adobe, Photoshop, Illustrator, InDesign, PageMaker, and Quark.
7. Manipulate, retouch, and alter Photographic images for commercial applications.
8. Prepare camera-ready layouts for newsletters, brochures, magazines, and newspapers.
9. Mass-produce ceramic ware using state-of-the-art forming, glazing, and firing techniques.

Upon successful completion of prescribed courses and music experiences provided in the music education program, the prospective music educator will be able to:

1. Demonstrate suitable skills and knowledge in music pedagogy, applied music, and related subject areas.
2. Demonstrate appropriate skills necessary for the teaching of music (general/choral or instrumental) in elementary, middle and secondary schools for pupils with varying learning abilities.
3. Develop evaluation instruments and assess musical performances.
4. Develop and implement classroom management procedures that contribute to a desirable learning environment.

5. Demonstrate skill in oral and written communication in music, as well as in other academic areas.

DEGREES OFFERED

Bachelor of Arts - Art Education
 Bachelor of Arts - Applied Design
 Bachelor of Arts - Music Education

GENERAL PROGRAM REQUIREMENTS

The admission of students to the undergraduate programs in the Department of Fine Arts is based upon the general admission requirements of the University.

**DEPARTMENTAL REQUIREMENTS
 ART EDUCATION TEACHING¹**

This program leads to the Bachelor of Arts degree in Art Education with specific preparation for teaching Art in elementary and secondary schools. Students who complete the program will be eligible for Pre-12 teaching certification. Students in this program must complete 126 semester hours of University courses. Included in the 125 semester hours are a minimum of 42 hours of Fine Art Core Courses and 42 hours of Professional Education Courses. A minimum GPA of 2.75 is required for all courses.

CAREER OPPORTUNITIES

A degree in Fine Arts prepares Art and Music teachers for elementary and secondary schools; students for professional non-teaching careers in Commercial Ceramics, Graphic Illustration, Commercial Photography and Sequential Arts, provides students a foundational development for graduate study.

COMMON REQUIRED COURSES

ARTS 102	ARTS 121	ARTS 201	ARTS 341
ARTS 103	ARTS 122	ARTS 202	ARTS 342
		ARTS 205	
		ARTS 206	
		ARTS 210	
		ARTS 211	
		ARTS 212	
		ARTS 221	

REQUIRED MAJOR COURSES

EDCI 200	EDCI 440A	EDSP 200B	PSYC 305
EDCI 201 ²	EDCI 450A		PSYC 307
EDCI 311			
EDCI 400			
EDCI 406			
EDCI 409			
EDCI 410			
EDCI 430			

¹For additional program requirements for the Art Education (Teaching) major, please refer to the Department of Education and the *Teacher Education Handbook*. UMES' Teacher Education Programs are accredited by the National Council for Accreditation of Teacher Education and approved by the Maryland State Department of Education.

²Does not count toward graduation.

**CURRICULUM GUIDE FOR ART EDUCATION
(Grades PreK-12)**

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 101	3	ENGL 102	3
MATH 102	3	ARTS 103	3
ARTS 101	3	ARTS 202	3
ARTS 102	3	EDHE 111	3
ARTS 201	3	GEN ED CURR. AREA II ¹	3
GNST 100	<u>1</u>	EDCI 200	3
	16	EDCI 201 ²	<u>3</u>
			19

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 203	3	ENGL 310	3
ARTS 121	3	ARTS 211	3
BIOL 101	3	ARTS 221	3
BIOL 103	1	ARTS 341	3
PSYC 305	3	GEN ED CURR AREA ³	<u>3</u>
EDSP 428	<u>3</u>		15
	16		

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ARTS 205	3	ARTS 210	3
ARTS 122	3	PSYC 307	3
ARTS 342	3	EDCI 406	3
ARTS 212	3	EDCI 409	3
GEN ED CURR. AREA ⁴	<u>3</u>	EDCI 306	<u>3</u>
	15		15

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ARTS 206	3	EDCI 400	3
EDCI 430	3	EDCI 440A	6
GEN ED CURR AREA III	3	EDCI 450A	<u>6</u>
EDCI 410	3		15
EDCI 311	<u>3</u>		
	15		

Total Credits Hours: 126

¹Student must select from GEN ED CURR AREA II:A.

²Does not count toward graduation)

³Students must select from GEN ED CURR AREA II: B

⁴Students must select from GEN ED CURR AREA I: HISTORY

**DEPARTMENTAL REQUIREMENTS
APPLIED DESIGN**

The Applied Design Program accepts as its mission the role of providing learning experiences for students who wish to pursue careers in the Applied Design fields of Graphic Illustration, Commercial Photography, Commercial Ceramics and Sequential Arts. The goal of this program is to offer an intensified curriculum in Applied Design that will enable students graduating from the program to think logically and creatively, and to function as practicing artists/crafts persons. Students in this program must complete 124 semester hours of University courses. Included in these 124 hours are 45 hours of required Foundation Courses and 38 hours of Fine Art Core Courses. A minimum GPA of 2.75 is required for all Foundation Courses and Fine Art Core Courses.

GRAPHIC ILLUSTRATION

COMMON REQUIRED COURSES

ARTS 102	ARTS 201	ARTS 304
ARTS 103	ARTS 202	ARTS 341
ARTS 122	ARTS 205	ARTS 342
	ARTS 206	BUAD 132
	ARTS 211	ECON 201
	ARTS 212	
	ARTS 213	

REQUIRED MAJOR COURSES

ARTS 313	ARTS 411	ARTS 450J
ARTS 314	ARTS 412 ¹ or	ARTS 330
ARTS 319	ARTS 420	ARTS 498J
ARTS 320		
ARTS 321		
ARTS 322		
ARTS 323		
ARTS 340		

¹Students must select either ARTS 412 or ARTS 420.

**CURRICULUM GUIDE FOR APPLIED DESIGN
GRAPHIC ILLUSTRATION**

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 101	3	ENGL 102	3
MATH 109	3	ARTS 103	3
GNST 100	1	ARTS 202	3
ARTS 102	3	ECON 201	3
ARTS 101	3	ARTS 211	<u>3</u>
ARTS 201	<u>3</u>		15
	16		

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ARTS 213	3	ARTS 341	3
ARTS 212	3	ENGL 203	3
BUAD 132	3	ARTS 206	3
ARTS 122	3	ARTS 205	3
ARTS 304	<u>3</u>	GEN ED CURR AREA I	<u>3</u>
	15		15

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 101	3	GEN ED CURR AREA II ¹	3
BIOL 103	1	GEN ED CURR AREA II ²	3
ARTS 321	3	ARTS 323	3
ARTS 342	3	ARTS 319	3
EDHE 111	3	ARTS 340	<u>3</u>
ARTS 322	<u>3</u>		15
	16		

SUMMER SEMESTER

ARTS 498J	<u>2</u>
	2

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ARTS 313	3	ARTS 314	3
ARTS 420	3	ARTS 450J	3
ENGL 305 or		GEN ED CURR AREA VI	3
ENGL 310	3	GEN ED CURR AREA III	3
ARTS 320	3	ARTS 412 or	
ARTS 411	<u>3</u>	ARTS 330	<u>3</u>
	15		15

Total Credits Hours: 124

¹Students must select from GEN ED CURR AREA II:A.

²Students must select from GEN ED CURR AREA II:B.

COMMERCIAL PHOTOGRAPHY

COMMON REQUIRED COURSES

ARTS 102	ARTS 201	ARTS 309	BUAD 132
ARTS 103	ARTS 202	ARTS 341	ECON 201
ARTS 122	ARTS 205		
	ARTS 206		
	ARTS 207		
	ARTS 211		
	ARTS 212		
	ARTS 213		

REQUIRED MAJOR COURSES

ARTS 311	ARTS 333	ARTS 410	ARTS 450K
ARTS 312		ARTS 411	ARTS 498K
ARTS 313		ARTS 412	ARTS 499K ¹
ARTS 314			

¹Students must complete two additional times for credit.

**CURRICULUM GUIDE FOR APPLIED DESIGN
COMMERCIAL PHOTOGRAPHY**

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 101	3	ENGL 102	3
MATH 109	3	ARTS 103	3
GNST 100	1	ARTS 202	3
ARTS 102	3	ECON 201	3
ARTS 101	3	ARTS 211	3
ARTS 201	<u>3</u>	ARTS 206	<u>3</u>
	16		18

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ARTS 213	3	ARTS 341	3
ARTS 212	3	ENGL 203	3
BUAD 132	3	ARTS 309	3
ARTS 122	3	ARTS 205	3
ARTS 207	<u>3</u>	GEN ED CURR AREA I ¹	<u>3</u>
	15		15

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 101	3	GEN ED CURR AREA II ²	3
BIOL 103	1	GEN ED CURR AREA II ³	3
ARTS 411	3	ARTS 314	3
ARTS 313	3	ARTS 311	3
EXSC 111 ⁴		ARTS 499K ⁵	<u>3</u>
ARTS 499K ⁵	<u>3</u>		15
	16		

SUMMER SEMESTER

ARTS 498K	<u>2</u>
	2

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ARTS 410	3	ARTS 412	3
ARTS 312	3	ARTS 450K	3
ENGL305 <u>or</u>		GEN CURR AREA VI	3
ENGL 310	3	ENGL 333	3
GEN ED CURR AREA III	3	GEN ED CURR AREA II ³	<u>3</u>
ARTS 499K ⁵	<u>3</u>		15
	15		

Total Credits Hours: 124

¹Students must select from GEN ED CURR AREA I: HISTORY.

²Students must select from GEN ED CURR AREA II:A.

³Students must select from GEN ED CURR AREA II:B.

⁴Course cannot be repeated for credit.

⁵Students must repeat ARTS 499K for credit.

APPLIED DESIGN FOR COMMERCIAL CERAMICS

COMMON REQUIRED COURSES

ARTS 102	ARTS 201	ARTS 341	BUAD 132
ARTS 103	ARTS 202		ECON 201
ARTS 121	ARTS 205		
ARTS 122	ARTS 206		
	ARTS 211		
	ARTS 212		
	ARTS 213		
	ARTS 221		

REQUIRED MAJOR COURSES

ARTS 302	ARTS 400	ARTS 450M	ARTS 498Q
ARTS 303	ARTS 401		ARTS 499M ¹
ARTS 305	ARTS 402		

¹Students must repeat course for credit.

**CURRICULUM GUIDE FOR APPLIED DESIGN
COMMERCIAL CERAMICS**

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 101	3	ENGL 102	3
MATH109	3	ARTS 103	3
GNST 100	1	ARTS 202	3
ARTS 102	3	ECON 201	3
ARTS 101	3	ARTS 211	3
ARTS 201	<u>3</u>	ARTS 121	<u>3</u>
	16		18

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ARTS 213	3	ARTS 341	3
ARTS 212	3	ENGL 203	3
BUAD 132	3	GEN ED CURR AREA II ¹	3
ARTS 122	3	ARTS 205	3
ARTS 221	<u>3</u>	GEN ED CURR AREA I	<u>3</u>
	15		15

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 101	3	GEN ED CURR AREA II ²	3
BIOL 103	1	GEN ED CURR AREA III	3
ARTS 305	3	ARTS 302	3
ARTS 342	3	ARTS 400	3
ARTS 499M ³	3	ARTS 499M	<u>3</u>
EXSC 111 ⁴	<u>3</u>		15
	16		

SUMMER SEMESTER

ARTS 498M	<u>2</u>
	2

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ARTS 303	3	ARTS 499M	3
ARTS 401	3	ARTS 402	3
ARTS 499M	3	ARTS 450M	3
GEN ED CURR AREA IV	3	GEN ED CURR AREA VI	<u>3</u>
ARTS 306	<u>3</u>		12
	15		

Total Credits Hours: 124

¹Students must select from GEN ED CURR AREA II:A.

²Students must select from GEN ED CURR AREA II:B.

³Students must be repeated course for credit.

⁴Course cannot be repeated for credit.

APPLIED DESIGN SEQUENTIAL ARTS

COMMON REQUIRED COURSES

ARTS 102	ARTS 201	ARTS 304	BUAD 132
ARTS 103	ARTS 202	ARTS 333	ECON 201
ARTS 122	ARTS 205	ARTS 341	
	ARTS 206	ARTS 342	
	ARTS 211		
	ARTS 212		

REQUIRED MAJOR COURSES

ARTS 313	ARTS 411	ARTS 450Q	ARTS 498Q ¹
ARTS 314			
ARTS 319			
ARTS 321			
ARTS 330			
ARTS 331			
ARTS 334			
ARTS 340			

¹Internship must be in the area of Sequential Arts.

**CURRICULUM GUIDE FOR
APPLIED DESIGN SEQUENTIAL ARTS**

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 101	3	ENGL 102	3
MATH 109	3	ARTS 103	3
GNST 100	1	ARTS 202	3
ARTS 100	3	ECON 201	3
ARTS 101	3	ARTS 211	<u>3</u>
ARTS 201	<u>3</u>		15
	16		

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ARTS 213	3	ARTS 341	3
ARTS 212	3	ARTS 340	3
BUAD 132	3	ARTS 206	3
ARTS 122	3	ARTS 205	3
ARTS 304	<u>3</u>	GEN ED CURR AREA I ¹	<u>3</u>
	15		15

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 101	3	GEN CURR AREA II ²	3
BIOL 103	1	ARTS 331	3
ARTS 411	3	ARTS 314	3
ARTS 330	3	ARTS 319	3
ARTS 313	3	ENGL 203	<u>3</u>
ARTS 342	<u>3</u>		15
	16		

SUMMER SEMESTER

ARTS 498Q ³	<u>2</u>
	2

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ARTS 321	3	ARTS 344	3
ARTS 332	3	ARTS 450Q	3
ENGL 305 <u>or</u>		GEN ED CURR AREA III	3
ENGL 310	3	GEN ED CURR AREA VI	3
GEN ED CURR AREA II ⁴	3	EDHE 111 ⁵	<u>3</u>
ARTS 499Q	<u>3</u>		15
	15		

Total Credits Hours: 124

¹Student must select GEN ED CURR AREA I: HISTORY.

²Student must select GEN ED CURR AREA II: A

³Internship must be in the area of Sequential Arts.

⁴Student must select GEN ED CURR AREA II:B

⁵Course cannot be repeated for credit.

MUSIC PROGRAM

The Music Program accepts as its mission the role of providing learning experiences for students who wish to pursue careers in elementary and secondary music education, providing performance opportunities through applied music study, providing performance opportunities through ensemble participation, providing foundational development for graduate study, and providing instruction for students who do not desire music as a career but wish to develop skills and knowledge of music as an avocation. The program also provides opportunities for students and members of the non-University community to experience a better quality of life through music exposure and study. Concerts, lectures, seminars, and workshops are presented to meet this aspect of our mission. Piano proficiency and musical achievement tests may be administered to freshmen and new students who elect the Music Education program. These tests are administered at designated periods prior to registration for each semester. Test results are used to counsel students in music course selection and aid them in pursuing a curriculum suitable to their abilities, talents and potential for success.

DEPARTMENTAL REQUIREMENTS

Students who are accepted as majors in Music Education must select a major applied instrument, with the approval of the appropriate applied music instructor and coordinator of the Music Program. Students who elect an orchestral instrument must fulfill the six-semester requirement in Music Ensemble: Instrumental. Students who elect piano or voice for their major applied concentration must fulfill the six semester requirement in Music Ensemble: Choral (instrumental if their performance in the ensemble will be on piano). Music Education majors are expected to perform in recitals twice each semester. Students in this program must complete 129 semester hours of University courses. Included in these 129 hours are 43 hours of required Music Core Courses and 45 hours of Professional Education Courses. A minimum GPA of 2.75 is required of all courses, and a grade of C or better is required for all music core courses.

COMMON REQUIRED COURSES

MUSI 102	MUSI 111	MUSI 201	MUSI 306
MUSI 103	MUSI 112	MUSI 203	MUSI 308
MUSI 104	MUSI 113 ¹ or	MUSI 205	MUSI 309
MUSI 105	MUSI 116A ¹	MUSI 206	MUSI310
MUSI 106		MUSI 211	MUSI 311
MUSI 107		MUSI 212	MUSI 312
MUSI 108			MUSI 313
			MUSI 314

REQUIRED MAJOR COURSES

EDCI 200	EDSP 428	EDCI 400
EDCI 201 ²	PSYC 305	EDCI 409
EDCI 311	PSYC 307	EDCI 410
		EDCI 421C ³ or
		EDCI 423C ³
		EDCI 423D
		EDCI 440C
		EDCI 450D

¹Students must select either MUSI 113 or MUSI 116A

²Course does not count toward graduation.

³Students must select either EDCI 421C or EDCI 423C.

**CURRICULUM GUIDE FOR EDUCATION
INSTRUMENTAL MUSIC
Grades PreK-12**

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 101	3	PSYC 200	3
MATH 102 or		ENGL 102	3
MATH 109	3	EXSC 111 ¹	3
ARTS 100	1	BIOL 103	1
BIOL 101	3	MUSI 103	4
MUSI 102	4	MUSI 112A-Q	1
MUSI 111A-Q	1	MUSI 113	1
MUSI 113	1	MUSI 206	<u>1</u>
MUSI 205	<u>1</u>		17
	17		

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 203	3	GEN ED CURR AREA III	3
EDCI 200	3	ENGL 305 or	
EDCI 201 ²	1	ENGL 310	3
MUSI 105	1	PSYC 305	3
MUSI 201	3	MUSI 107	1
MUSI 309	1	MUSI 108	1
MUSI 211A-Q	1	MUSI 203	2
MUSI 113	<u>1</u>	MUSI 310	1
	13	MUSI 212A-Q	1
		MUSI 113	<u>1</u>
			16

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
MUSI 101	3	GEN ED CURR AREA II	3
PSYC 307	3	EDCI 409	3
EDCI 306	3	EDCI 406	3
MUSI 104	1	EDCI 421C	3
MUSI 306	3	MUSI 106	1
MUSI 313	2	MUSI 314	2
MUSI 311A-Q	1	MUSI 312A-Q	1
MUSI 113	<u>1</u>	MUSI 113	<u>1</u>
	17		17

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
GEN ED CURR AREA I	3	EDCI 400	3
EDCI 410	3	EDCI 440C	6
EDCI 423D	3	EDCI 450D	<u>6</u>
EDCI 311	3		15
EDSP 428	3		
MUSI 308	<u>2</u>		
	17		

Total Credits Hours: 129

¹Course cannot be repeated for credit.

²Course does not count toward graduation.

**CURRICULUM GUIDE FOR MUSIC EDUCATION
GENERAL/CHORAL
Grades PreK-12**

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 101	3	PSYC 200	3
MATH 102 or		ENGL 102	3
MATH 109	3	EXSC 111 ¹	3
ARTS 100	1	BIOL 103	1
BIOL 101	3	MUSI 103	4
MUSI 102	4	MUSI 112A-Q	1
MUSI 111A-Q	1	MUSI 116A	1
MUSI 116A	1	MUSI 206	<u>1</u>
MUSI 205	<u>1</u>		17
	17		

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 203	3	GEN ED CURR AREA III	3
EDCI 200	3	ENGL 305 or	
EDCI 201 ²	1	ENGL 310	3
MUSI 105	1	PSYC 305	3
MUSI 201	3	MUSI 107	1
MUSI 309	1	MUSI 108	1
MUSI 211A-Q	1	MUSI 203	2
MUSI 116A	<u>1</u>	MUSI 310	1
	13	MUSI 212A-Q	1
		MUSI 116A	<u>1</u>
			16

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
MUSI 101	3	GEN CURR AREA II	3
PSYC 307	3	EDCI 409	3
EDCI 306	3	EDCI 406	3
MUSI 104	1	EDCI 421C	3
MUSI 306	3	MUSI 106	1
MUSI 313	2	MUSI 314	2
MUSI 311A-Q	1	MUSI 312A-Q	1
MUSI 116A	<u>1</u>	MUSI 116A	<u>1</u>
	17		17

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
GEN ED CURR AREA I	3	EDCI 400	3
EDCI 410	3	EDCI 440C	6
EDCI 423C	3	EDCI 450D	<u>6</u>
EDCI 311	3		15
EDSP 428	3		
MUSI 308	<u>2</u>		
	17		

Total Credits Hours: 129

¹Course cannot be repeated for credit.

²Course does not count toward graduation.

COURSE DESCRIPTIONS IN ART

ARTS 100 First Year Experience

Credit 1

This course is to provide an opportunity for students to make a seamless transition from high school to college. Essential skills for transition will be explored and discussed. This course will assist students in developing cognitive skills and will assist them in adjusting personally and socially to the college environment. This course will enable first-year students to develop creative and critical thinking skills, and information literacy skills needed to facilitate a successful transition from high school to university. Additionally, this course shall facilitate self-awareness and interpersonal skills. In addition, to providing information needed for student success at the University, this course serves as a conduit for students entering into the field of Applied Design. Students will be provided with prerequisite needed to make a successful transition into the Fine Arts Major. The course will develop interpersonal and conflict resolution skills providing academic, personal, social, and emotional adjustment. Prerequisites: Applied Design Majors Only.

ARTS 101 Exploration of the Visual Arts

Credit 3

This is a philosophical course in the nature of Art designed to acquaint the student with the complex phenomena that makes up the art of our time, ranging from prehistory to the present. Emphasis is placed primarily upon the visual arts of painting, drawing, sculpture, pottery, and the graphic arts. The course features specifically, the nature of visual form, the art object, the material and process by which it was formed, and the creative process. Field trips are a requirement. OPEN TO ALL STUDENTS.

ARTS 102 Drawing I

Credit 3

The purpose of this course is to allow students to record their observable environment, to express an emotional relationship to a subject, and to organize compositions into satisfying arrangements. The course is designed to enable students to develop a "Seeing Eye" by regularly sketching from direct observation. Gesture, contour, and the elements of line, value, texture, and space are explored. ARTS 102 is a beginning course in drawing. Laboratory four hours.

ARTS 103 Drawing II

Credit 3

This is a continuation of ARTS 102; regular drawing from nature will be explored with emphasis placed on an understanding of the representation of the figure and on subjective thematic drawing. Laboratory four hours. Prerequisite: ARTS 102.

ARTS 104 Introduction to Visual Culture

Credit 3

Today as part of the 21st century visual images pervade our culture more than any other period in history. Increasingly people build their ideas and attitudes about culture not from first hand experience but from images either as still photographs, video, film and electronic media. This course would look at the range of technology employed to create the new images and the cultural significance of life in a world of images. In this course students will become familiar with the key methods of visual criticism and larger social debate about the politics of information through images. Through lecture, selected reading discussion, viewings and screening the various types of visual cultural style will be examined. OPEN TO ALL STUDENTS. Lecture three hours.

ARTS 105 Fundamentals of Drawing

Credit 3

This is an introductory course in drawing designed to strengthen fundamental drawing skills and prepare students for entry into Arts 102. This course may not be applied toward the Art Core Requirements. OPEN TO ART MAJORS ONLY.

ARTS 121 Ceramics I

Credit 3

Ceramics I is designed to acquaint beginning students with the fundamental pottery processes which include forming, design, decoration, glazing, firing, and clay processing. OPEN TO ALL STUDENTS. Laboratory four hours.

ARTS 122 Sculpture I

Credit 3

This is a course designed to acquaint students with the fundamental manipulation and analysis of three-dimensional media through sculptural techniques. Studies are done in wood, metal, plaster, clay, and plastics. Emphasis is placed on creativity. Laboratory four hours. Prerequisite: ARTS 202.

ARTS 200 Jewelry I

Credit 3

This is an analytical and functional study of metals, precious stones, enamels, jeweler's tools, equipment, and their possibilities. The course includes metal embossing, casting, forging, forming techniques, and stone setting. Emphasis is focused on creativity. OPEN TO ALL STUDENTS. Laboratory four hours.

ARTS 303 Ceramics IV: Advanced Ceramics Credit 3
This is a continuation of ART 302. Emphasis is focused on the development of one's own style. This course provides the advanced ceramic student opportunities to explore throwing techniques, such as inverted stacking, throwing coils, and throwing off the hump. Emphasis is on the production of large forms and mass production throwing techniques. Laboratory four hours. Prerequisite: ARTS 302.

ARTS 304 Drawing III Credit 3
This is an advanced course in drawing that is a continuation of ARTS 103 Drawing II. Emphasis is on creative pursuits and finding one's own expressive style. Laboratory four hours. Prerequisites: ARTS 102 and consent of the instructor.

ARTS 305 Ceramics V Hand Construct Credit 3
This advanced course in hand building techniques explores Lab. construction, coil construction, hump mold construction, press mold construction, and paddling techniques. Emphasis in space will be investigated with a variety of techniques in many media. Laboratory four hours.

ARTS 306 Ceramics VI: Advanced Hand Construction Credit 3
This is a continuation of ARTS 305; emphasis is focused on the development of one's own style. Laboratory four hours. Prerequisite: ARTS 305.

ARTS 309 Photography II Credit 3
This is an intermediate level course which builds on the technical and conceptual framework established in Photography I. Topics include manipulated and altered imagery, basic introduction to color Photography, and introduction of Macintosh computer manipulation. Laboratory four hours. Prerequisite: ARTS 206.

ARTS 310 African American Art History Credit 3
This course is a study of African American art in the United States, from its African roots to the present. Emphasis is placed on painting, sculpture, pottery, and crafts. OPEN TO ALL STUDENTS. Lecture three hours.

ARTS 311 Photography III Credit 3
This course introduces students to medium and large format Photography and its use as a documentation tool. Course projects explore such topics as personal imagery, issues of political and social significance, and narrative forms. Technical information and exercises include advanced black and white film processing and Printing, and 4"x5" studio and field camera techniques. Laboratory four hours. Prerequisite: ARTS 309.

ARTS 312 Photography IV Credit 3
This course is a continuation of Photography III. Students explore color Photography and digital output, along with selected non-silver alternative Photographic practices. Laboratory four hours. Prerequisite: ARTS 311.

ARTS 313 Foundations of Visual Computing Credit 3
This course introduces students to the tools, terms, and techniques of visual computing. Students learn basic computer skills and creative methods. Students continue to strengthen their design skills by manipulating and collaring digital images. Laboratory four hours. Prerequisites: ARTS 102 and ARTS 201. OPEN TO ART MAJORS ONLY.

ARTS 314 Advanced Visual Computing Credit 3
In this intensive studio class, students continue to explore the computer medium of expression. Using powerful programs like Photoshop, and Illustrator, students will create original digital images that express an understanding of both form and content. Laboratory four hours. Prerequisite: ARTS 313. OPEN TO ART MAJORS ONLY.

ARTS 319 Representational Painting Credit 3
In this course instruction strongly emphasizes the figure as a component of representational and/or observation-based painting and drawing. The choice of painting/drawing media is entirely up to the student and can change frequently. There is an emphasis on individualized instruction. Components of this course include observation from the model, two weeks of anatomy for artists, and invented compositions using the human figure; instruction emphasizes placing figure(s) in space and studying of the drawings and paintings of old and modern masters in relation to these concerns. Laboratory four hours. Prerequisite: ARTS 342.

ARTS 320 Advanced Representational Painting Credit 3
This is a continuation of ARTS 319. Prerequisites: ARTS 319 and consent of the instructor.

ARTS 321 Water Based Media Credit 3
This course is designed to introduce students to the rewarding and challenging water based media. Students explore the wide range of applications of watercolor as they paint both from life and from their imagination. Laboratory four hours. Prerequisite: ARTS 342.

ARTS 322 Illustration I Credit 3
Illustration I is an introductory course incorporating concept, individual expression, and development of skills. Demonstrations and discussions on creative process and media are given. Students are exposed to all areas of illustration: advertising, editorial, and corporate. Various black and white and color media are introduced. Laboratory four hours. Prerequisite: ARTS 103.

ARTS 323 Illustration II Credit 3
This is an advanced course in illustration which explores painting techniques as they relate to illustration problem solving. Students work in ink, acrylic, and watercolor. Students not only concentrate on developing a personal approach to painting, but also grapple with issues of concept and design in communicating ideas visually. Class assignments are wide-ranging; investigating the applicability of techniques to editorial and book illustration, product design, and packaging. Students will work by direct observation as well as learn how to make and use Photographic reference effectively in their working processes. Laboratory four hours. Prerequisite: ARTS 322.

ARTS 330 Sequential Arts I Credit 3
This course explores the fundamentals of sequential storytelling. All levels of the comic book industry are examined; contemporary and traditional techniques are demonstrated and mastered. Laboratory four hours. Prerequisite: ARTS 103.

ARTS 331 Sequential Arts II Credit 3
This course will further examine the medium of sequential art. Advanced concepts of storytelling and pacing will be broached, and continuing study of computer applications and usage will be examined. Submission policies and standards will also be emphasized. Laboratory four hours. Prerequisite: ARTS 330.

ARTS 332 Sequential Arts III Credit 3
This course is intended as an advanced study of the sequential arts medium. As such it will investigate the current trends of the art form and its international appreciation. Alternative materials and processes of visual expression will be introduced. Experimentation with progressive styles and presentation methods will be investigated. Laboratory four hours. Prerequisite: ARTS 331.

ARTS 333 History of Sequential Arts Credit 3
This course will examine the history of sequential art. The origins of pictorial narratives will be examined from earliest stages of art history. Cave paintings, Egyptian Hieroglyphics, and illuminated manuscripts will serve as the foundation for a more focused study of cartoons and comics from the twentieth century. Lecture three hours.

ARTS 334 Elements of Cartooning Credit 3
This course covers the theory and practice of single panel and newspaper comic art. Students will learn the history and practices of the fields leading artists. Students will then begin to create their own comics by incorporating lessons in storytelling and visual impact. Students will develop and execute unique cartoons in both single panel and newspaper strip formats. Upon completion of the course, they will have developed a professional portfolio of cartoons. Laboratory four hours. Prerequisite: ARTS 103.

ARTS 340 Anatomy for Artists Credit 3
This course examines the anatomy of the human form as it applies to artists. Muscle groups and skeletal structures will be studied through handouts, observation and drawing/photography. Skeletal models, photos and live models will be analyzed and drawn from. Nudity is an essential component to this course. Anyone who is sensitive to the objective depiction and observation of the natural human form should reconsider their placement in this class. Laboratory four hours. Prerequisite: ARTS 103.

ARTS 341 Painting I Credit 3
The body of knowledge covered in ARTS 341 is represented by traditional areas of concentration. The aim of the educational experience, however, is to have the student create freely and develop a visual vocabulary of his/her own. Emphasis will be placed on structured assignments employing the traditional devices of still life figure, collage, and color phenomena exercises. Laboratory four hours. Prerequisites: ARTS 102 and ARTS 103.

- ARTS 342 Painting II Credit 3**
 The purpose of this course is to explore the ways in which painting can be used to give visual form to ideas through an experimental process. The course aims to give a more in-depth experience in painting. Students deal with problems which give a more comprehensive insight into painting in the contemporary area and more freedom of choice in the direction in which to work and explore ideas. Projects in the field of mixed media are explored. Laboratory four hours. Prerequisite: ARTS 341.
- ARTS 400 Ceramics VII: Glaze Calculations Credit 3**
 This course is designed to provide the student with an in-depth working knowledge of compounding and testing ceramic glazes. The imperial method is used as the Principle method of calculation. Testing clays and firing techniques are a major focus, along with safety precautions that must be adhered to when using ceramic chemicals. Laboratory four hours. Prerequisite: ARTS 303.
- ARTS 401 Ceramics VIII: Functional Ceramics Credit 3**
 This course is designed to provide students an opportunity to develop a line of functional ware that is uniquely their own. Laboratory four hours. Prerequisites: ARTS 300, ARTS 301, ARTS 302, ARTS 303, and ARTS 400.
- ARTS 402 Ceramics IX: Firing and Kiln Design Credit 3**
 This course is designed to provide hands-on experience in the design of ceramic kilns and in firing techniques. A major emphasis is focused on high fire reduction kilns, both gas and wood burning models. Laboratory four hours. Prerequisite: ARTS 400.
- ARTS 410 Studio Photography Credit 3**
 This course is designed to acquaint the student with fundamentals of working in the Photographic studio environment. Projects covering various techniques of studio lighting, portraiture, and product Photography are investigated. In addition, students work in experimental set design for the studio. Projects incorporate both traditional silver and color Photographic processes. Laboratory four hours. Prerequisites: ARTS 206, ARTS 309, and ARTS 311.
- ARTS 411 Digital Photography I Credit 3**
 This course examines the impact of computer technology in Photography. Topics include methods to bring images into the computer, such as digital cameras, scanning, Photo. CD, video capture, internet image access. Photographic image alteration is carried out primarily with digital technology. Laboratory four hours. Prerequisites: ARTS 206.
- ARTS 412 Digital Photography II Credit 3**
 This course is a continuation of Digital Photography I. The course gives special emphasis to the challenged digital photographers face when working with models both in the studio and on location. In addition, the course will cover advanced Photoshop techniques. Laboratory four hours. Prerequisite: ARTS 411.
- ARTS 420 Illustration III Credit 3**
 This course explores the ways in which painting can be used to give visual form to ideas through experimental processes. The course aims to give more in-depth experience in painting. Students deal with problems which give a more comprehensive insight into painting in the contemporary area and more freedom of choice in the direction in which to work and explore ideas. Projects in the field of mixed media are explored. Laboratory four hours. Prerequisite: ARTS 323.
- ARTS 450J Illustration: Senior Project Credit 3**
 This course is an extensive independent study that focuses on the uses of illustration. A formal proposal is approved by the instructor. The project may be a research topic with the results presented in a scholarly paper or a particular challenging body of work. Exhibition is required. Laboratory four hours. Prerequisite: Consent of instructor.
- ARTS 450K Photography: Senior Project Credit 3**
 This course is an extensive independent study that focuses on the uses of Photographic techniques. A formal proposal will be approved by the instructor. The project may be a research topic with the results presented in a scholarly paper or a particularly challenging body of work. Exhibition is required. Laboratory four hours. Prerequisite: Consent of instructor.

ARTS 450M Ceramics IX: Senior Projects Credit 3
In this course senior students are required to develop a project with consent of instructor. The project may be a research topic that results in the presentation of a scholarly paper, or it may be a particularly challenging body of work that includes documented research on the process or technique(s) used. Laboratory four hours. Prerequisites: Senior Standing and consent of the instructor.

ARTS 450Q Sequential Arts: Senior Project Credit 3
This course is an extensive independent study that focuses on the uses of Photographic techniques. A formal proposal will be approved by the instructor. The project may be a research topic with the results presented in a scholarly paper or a particularly challenging body of work. Exhibition is required. Laboratory four hours. Prerequisite: Consent of instructor.

ARTS 498J Internship: Illustration Credit 2
This course provides students a work experience under the direct supervision of selected professionals in their field of study. Students must register for the course during the summer semester following their junior year. The internship requires 240 hours of direct work experience. Prerequisites: Junior standing and consent of the instructor.

ARTS 498K Internship: Photography Credit 2
This course provides students a work experience under the direct supervision of selected professionals in their field of study. Students must register for the course during the summer semester following their junior year. The internship requires 240 hours of direct work experience. Prerequisites: Junior standing and consent of the instructor.

ARTS 498M Internship: Ceramics Credit 2
This course provides students a work experience under the direct supervision of selected professionals in their field of study. Students must register for the course during the summer semester following their junior year. The internship requires 240 hours of direct work experience. Prerequisites: Junior standing and consent of the instructor.

ARTS 498Q Internship: Sequential Arts Credit 2
This course provides students a work experience under the direct supervision of selected professionals in their field of study. Students must register for the course during the summer semester following their junior year. The internship requires 240 hours of direct work experience. Prerequisites: Junior standing and consent of the instructor.

ARTS 499A Independent Study: Painting Credit 3
This course provides students with the opportunity to elect specialized areas of study in painting. Students are required to meet and confer with the instructor on specified conference dates. Prerequisite: Consent of instructor.

ARTS 499B Independent Study: Printmaking Credit 3
This course provides students with the opportunity to elect specialized areas of study in Printmaking. Students are required to meet and confer with instructor on specified conference dates. Prerequisite: Consent of instructor.

ARTS 499C Independent Study: Ceramics Credit 3
This course provides students with the opportunity to elect specialized areas of study in ceramics. Students are required to meet and confer with instructor on specified conference dates. Prerequisite: Consent of instructor.

ARTS 499D Independent Study: Drawing Credit 3
This course provides students with the opportunity to elect specialized areas of study in drawing. Students are required to meet and confer with the instructor on specified conference dates. Prerequisite: Consent of instructor.

ARTS 499E Independent Study: Jewelry Credit 3
This course provides students with the opportunity to elect specialized area of study in jewelry. Students are required to meet and confer with instructor on specified conference dates. Prerequisite: Consent of instructor.

ARTS 499F Independent Study: Photography Credit 3
This course provides students with the opportunity to elect specialized areas of study in Photography. Students are required to meet and confer with instructor on specified conference dates. Prerequisite: Consent of instructor.

ARTS 499G Independent Study: Sculpture Credit 3
This course provides students with the opportunity to elect specialized areas of study in sculpture. Students are required to meet and confer with the instructor on specified conference dates. Prerequisite: Consent of instructor.

ARTS 499J Independent Study in Applied Design: Illustration Credit 3
This course is designed to provide Applied Design majors with opportunities to elect specialized areas of study in studio illustration. Students are required to receive written permission from the instructor. Laboratory four hours. Prerequisite: Upper Division standing and permission from the instructor.

ARTS 499K Independent Study in Applied Design: Photography Credit 3
This course is designed to provide Applied Design majors with opportunities to elect specialized areas of study in studio Photography. Students are required to receive written permission from the instructor. Laboratory four hours. Prerequisite: Upper Division standing and permission from the instructor.

ARTS 499M Independent Study in Applied Design: Ceramics Credit 3
This course is designed to provide Applied Design majors with opportunities to elect specialized areas of study in studio ceramics. Students are required to receive written permission from the instructor. Laboratory four hours. Prerequisite: Upper Division standing and permission from the instructor.

ARTS 499Q Independent Study in Applied Design: Sequential Art Credit 3
This course is designed to provide opportunities for art majors to explore specialized areas of sequential art. Students are required to receive written permission from the instructor. Laboratory four hours. Prerequisite: ARTS 330.

MUSIC

MUSI 100 Rudiments of Music Credit 3
This course is a study of the basic fundamentals of music with emphasis on note-reading, musical notations, keys and key signatures, musical terms, and major and minor scale formations. An introduction to sight-singing, melodic dictation, and ear training may be included. This course may not be applied toward the music education core requirement. OPEN TO ALL STUDENTS. Three hours lecture per week.

MUSI 101 Introduction to Music Credit 3
An introductory course in which the acquisition of designated skills and knowledge serves as a means of musical enjoyment. Basic music repertoire is included. OPEN TO ALL STUDENTS; however, music education majors can receive credit towards general education requirements only. Three hours lecture per week.

MUSI 101 Honors Introduction to Music-Honors Credit 3
An introductory course in which the acquisition of designated skills and knowledge serves as a means of musical enjoyment. Basic music repertoire is included. Round-table discussions and background research enhance the course for honors students. Three hours lecture per week. OPEN TO HONORS STUDENTS ONLY. Consent required.

MUSI 102 Music Theory and Application I Credit 4
This course is a study of the materials and basic stylistic elements of music. Skills in ear-training, sight-singing, melodic dictation, and intervallic and triadic recognition are developed. Through original composition and analysis of music literature, students are introduced to basic techniques of melody-writing, counterpoint, harmony, form, and orchestration. Courses must be taken sequentially. Three hours lecture and two hours laboratory per week. Prerequisite: MUSI 189 with a minimum grade of C, or consent of the instructor.

MUSI 103 Music Theory and Application II Credit 4
This course is a continuation of the study of the materials and basic stylistic elements of music. Skills in ear-training, sight-singing, melodic dictation, and intervallic and triadic recognition are developed. Through original composition and analysis of music literature, students are introduced to basic techniques of melody-writing, counterpoint, harmony, form, and orchestrations. Three hours lecture and two hours laboratory per week. Prerequisite: MUSI 102 with minimum grade of C, or consent of the instructor.

MUSI 104 Woodwind Class Credit 1
This course focuses on the essential competencies required for certification in the teaching of instrumental music. Fundamentals of breath control, characteristic tone, attack, and the development of a good embouchure are applied. The student will gain competent playing ability on flute, saxophone & clarinet as well as a working knowledge of bassoon and oboe. Instruction in the class includes performance methods and materials, care and maintenance of instruments, and the role of the woodwinds in school band and orchestras. Two laboratory hours per week. Consent required.

MUSI 105 Percussion Class Credit 1
This course explores the fundamentals of performance on selected instruments of the percussion family. The student develops the ability to perform on two percussion instruments and gains pedagogical principles of the others. Instruction in the class also includes performance methods and materials, care and maintenance of instruments, and the role of the percussion section in a school band or orchestra. Two laboratory hours per week. Consent required.

MUSI 106 String Class Credit 1
This course is an exploration of the fundamentals of performance on instruments of the string family. The student develops basic ability to perform on two string instruments and gains pedagogical principles on the others. Instruction in the class also includes performance methods and materials, care and maintenance of instruments, and the role of the string section in an orchestra. Two laboratory hours per week. Consent required.

MUSI 107 Brass Class Credit 1
This course is an exploration of the fundamentals of performance on selected instruments of the brass family. Fundamentals of breath control, characteristic tone, attack and the development of good embouchure are studied. The student develops basic ability to perform on two instruments and gains pedagogical principles of the others. Performance methods and materials, care and maintenance, and the role of the brass instruments in school bands and orchestras are studied. Two laboratory hours per week. Consent required.

MUSI 108 Voice Class Credit 1
This is a course in which voice classification, general vocal problems, and solutions to these problems are studied. Correct breathing, tone reproduction, and diction are applied and functional repertoire initiated. Pedagogical principles are developed. A proficiency examination is given at the end of the course. Two laboratory hours per week. Consent required.

MUSI 109 Introduction to Jazz History Credit 3
This course explores the styles and researches historical events which contributed to the evolution of the types of music called jazz. The philosophical and sociological relationships to the development of jazz from the late 1800's to the present are the primary focus of the course. The basic elements of music and performance practices are studied. OPEN TO ALL STUDENTS. Lecture, three hours.

MUSI 110A Preparatory Piano Class Credit 1
This is a study of elementary piano skills designed for students with limited or no previous training. The course may be repeated for credit; however, no credit toward the Music Education degree is granted. Required of Music Education majors who do not qualify for MUSI 205 or MUSI 111A, and must be repeated until performance competencies at these levels are met. A proficiency examination is administered. A grade of C or better must be earned before continuation to MUSI 110B. OPEN TO MUSIC MAJORS ONLY.

MUSI 110B Preparatory Piano Class Credit 1
This is a continuation of MUSI 110A. The course may be repeated for credit; however, no credit toward the Music Education Degree is granted. Required of Music Education majors who do not qualify for MUSI 205 or MUSI 111A and must be repeated until performance competencies at these levels are met. A proficiency examination is administered. A grade of C or better must be earned before registration for MUSI 205 or MUSI 111A. OPEN TO MUSIC MAJORS ONLY.

MUSI 111 A-Q Major Applied Credit 1
In this course, directed sequential instruction is provided with emphasis on technique development and literature studies. One 50-minute lesson per week; a minimum of six practice hours per week is recommended. A proficiency examination is required of Music Education majors with a faculty jury at the end of the semester. Prerequisite: Consent of the Instructor.

MUSI 112 A-Q Major Applied Credit 1
In this course, directed sequential instruction is provided with emphasis on technique development and literature studies. One 50-minute lesson per week; a minimum of six practice hours per week is recommended. A proficiency examination is required of Music Education majors with a faculty jury at the end of the semester. Prerequisite: Consent of the Instructor.

MUSI 113A Concert Band Credit 1
In this course, the rehearsal, study, and performance of standard and non-standard concert band literature will be explored. OPEN TO ALL STUDENTS WHO QUALIFY. May be repeated for credit. Prerequisite: Consent of Instructor.

MUSI 113B Jazz Band Credit 1
In this course, the rehearsal, study, and performance of Jazz band literature will be explored. OPEN TO ALL STUDENTS WHO QUALIFY. May be repeated for credit. Prerequisite: Consent of Instructor.

MUSI 116A Concert Choir Credit 1
In this course, the rehearsal and performance of choral literature, employing various combinations of voices, will be explored. OPEN TO ALL STUDENTS WHO QUALIFY. May be repeated for credit. Prerequisite: Consent of Instructor.

MUSI 116B Gospel Choir Credit 1
In this course, the rehearsal and performance of Black American Gospel Choir literature, employing various combinations of voices, will be explored. Does not fulfill Music Education ensemble requirements. OPEN TO ALL STUDENTS WHO QUALIFY. May be repeated for credit. Prerequisite: Consent of Instructor.

MUSI 188A Intro to Music Theory Credit 2
This is an intense, detailed study of fundamental music theory skills designed for students with limited or no previous training, as a preparation for MUSI 102. Emphasis in this course is on rhythmic and notation skills, both aural and written. These credits do not count toward the Music Education degree. Required of Music Education majors who do not qualify for MUSI 102. A proficiency examination is administered. Two hours lecture-laboratory per week. A grade of C or better must be earned before continuation to MUSI 189. OPEN TO MUSIC MAJORS AND MINORS ONLY.

MUSI 189 Exp. Core: Music Theory Prep II Credit 3
This is a continuation of MUSI 188A designed for students with limited or no previous training, as a preparation for MUSI 102. Emphasis in this course is on scales, key signatures, intervals, and basic harmonic functions. These credits do not count toward the Music Education degree. Required of Music Education majors who do not qualify for MUSI 102. A proficiency examination is administered. Three hours lecture-laboratory per week. Prerequisite: MUSI 188A with a minimum grade of C, or consent of Instructor. OPEN TO MUSIC MAJORS AND MINORS ONLY.

MUSI 201 Harmony Credit 3
This course is a continuation of harmonic principles introduced in MUSI 102 and MUSI 103, with emphasis placed upon the study of harmonic progressions, figured bass realization, modulation, and altered chords, as practiced in the eighteenth century. Some composition in small forms is required. Analysis of eighteenth and nineteenth century literature is included, with an introduction to twentieth century harmonic practices. Three hours lecture-laboratory per week. Prerequisite: MUSI 103 with minimum grade of C or consent of Instructor.

MUSI 203 Form and Analysis Credit 2
This course is a study of motive, phrase, sentence structure, song forms, sonata, rondo, and other primary musical forms. Harmonic and structural analysis of selected 17th, 18th, 19th, and 20th century compositions are explored. Aural and written experiences are undertaken. Three one-hour lectures per week. Prerequisite: MUSI 201 with a minimum grade of C or consent of Instructor.

MUSI 205 Piano Class I Credit 1
This course is a study of piano techniques useful for school and community playing. Scales, arpeggios, chordal techniques, melody and accompaniment playing, transposition, sight-reading, and improvisation are included. A proficiency examination is administered at the end of the semester with evaluation made by a faculty jury. Two laboratory hours per week. Prerequisite: MUSI 110B with a minimum grade of C, or an audition. OPEN TO MUSIC MAJORS ONLY.

MUSI 206 Piano Class II Credit 1
This course is a continuation of MUSI 205, and includes study of piano techniques useful for school and community playing. Scales, arpeggios, chordal techniques, melody and accompaniment playing, transposition, sight-reading, and improvisation are included. A proficiency examination is administered at the end of the semester with evaluation made by a faculty jury. Two laboratory hours per week. Prerequisite: MUSI 205 with a minimum grade of C, or an audition. OPEN TO MUSIC MAJORS ONLY.

- MUSI 211** **A-Q Major Applied** **Credit 1**
 In this course, directed sequential instruction is provided, with emphasis on technique development and literature studies. One 50-minute lesson per week; a minimum of six practice hours per week is recommended. A proficiency examination is required of Music Education majors with a faculty jury at the end of the semester. Prerequisite: Consent of the Instructor.
- MUSI 212** **A-Q Major Applied** **Credit 1**
 In this course, directed sequential instruction is provided, with emphasis on technique development and literature studies. One 50-minute lesson per week; a minimum of six practice hours per week is recommended. A proficiency examination is required of Music Education majors with a faculty jury at the end of the semester. Prerequisite: Consent of the Instructor.
- MUSI 288** **History of World Music** **Credit 3**
 This course is a survey of world music, forms, styles, social and political influences and the variety of musical instruments. This course may not be applied toward the music education core requirement. OPEN TO ALL STUDENTS. Three hours lecture per week.
- MUSI 306** **Instrumentation and Arranging** **Credit 3**
 This course is a study of instrumental and vocal colors, sounds, and technical capabilities of orchestral instruments and voices. Students acquire practical skills in functional arranging of various types of music. Three lecture-laboratory hours per week. Prerequisite: MUSI 203 with a minimum grade of C, or consent of the Instructor.
- MUSI 308** **Conducting** **Credit 2**
 This is a laboratory course in conducting through score-reading. Baton and hand techniques, conducting patterns, rehearsal techniques, and communicative gestures for vocal and instrumental literature of various periods will be included. Three hours lecture-laboratory per week. Prerequisites: MUSI 203 and MUSI 306, and consent of the Instructor.
- MUSI 309** **Piano Class III** **Credit 1**
 This course is a continuation of technical skills introduced in MUSI 205 and 206, with additional emphasis on accompanying vocal and instrumental literature, improvisation in classical and popular styles, chordal progressions, modulation, reduction of four-part open score, and weekly ensemble playing. Two laboratory hours per week. Prerequisites: MUSI 206 with a minimum grade of C, or by audition.
- MUSI 310** **Piano Class IV** **Credit 1**
 This course is a continuation MUSI 309, with additional emphasis on accompanying more advanced vocal and instrumental literature, improvisation in classical and popular styles, chordal progressions, modulation, reduction of four-part open score and ensemble playing. Two laboratory hours per week. Prerequisites: MUSI 309 with a minimum grade of C, or by audition.
- MUSI 311** **A-Q Major Applied** **Credit 1**
 In this course, directed sequential instruction is provided, with emphasis on technique development and literature studies. One 50-minute lesson per week; a minimum of six practice hours per week is recommended. A proficiency examination is required of Music Education majors with a faculty jury at the end of the semester. Prerequisite: Consent of Instructor.
- MUSI 312** **A-Q Major Applied** **Credit 1**
 In this course, directed sequential instruction is provided, with emphasis on technique development and literature studies. One 50-minute lesson per week; a minimum of six practice hours per week is recommended. A proficiency examination is required of Music Education majors with a faculty jury at the end of the semester. Prerequisite: Consent of Instructor.
- MUSI 313** **Music History and Literature I** **Credit 2**
 This is a survey course designed to explore the evolution of music in Western Civilization. Musical forms, styles, social and political influences on music, periods of major importance, and characteristic elements associated with instrumental, vocal, and theoretical contributions are stressed. Selected recordings, scores, and elements of research in music history are included. This course covers the Grecian Era to the seventeenth century. Three lecture hours per week. Prerequisites: MUSI 201 and MUSI 203 with a minimum grade of C, or consent of the Instructor.

MUSI 314 **Music History and Literature II** **Credit 2**
This course is a continuation of MUSI 313. This course covers the seventeenth century to the present. Three lecture hours per week. Prerequisite: MUSI 313 with a minimum grade of C, or consent of the Instructor.

MUSI 388 **Exp. Core: Small Jazz Ensemble** **Credit 1**
Students will be engaged in intense study of musical style and theoretical concepts of jazz music. Course is performance-based, and students will be required to demonstrate acquired skills through public performances. Classes meet twice per week, including lectures on theoretical concepts, and rehearsals to put concepts into practice and to develop musical skills. May be repeated for credit. Prerequisites: MUSI 102 and consent of the instructor.

MUSI 402 **A-Q Senior Recital** **Credit 2-3**
This course is preparation of a full or half recital in the major applied area. At the conclusion of the course, the student will give a public performance of approved prepared materials. Prerequisite: Consent of instructor and the Chairman of the Department.

MUSI 411 **A-Q Major Applied** **Credit 1**
In this course, directed sequential instruction is provided, with emphasis on technique development and literature studies. One 50-minute lesson per week; a minimum of six practice hours per week is recommended. A proficiency examination is required of Music Education majors with a faculty jury at the end of the semester. Prerequisite: Consent of Instructor.

MUSI 412 **A-Q Major Applied** **Credit 1**
In this course, directed sequential instruction is provided, with emphasis on technique development and literature studies. One 50-minute lesson per week; a minimum of six practice hours per week is recommended. A proficiency examination is required of Music Education majors with a faculty jury at the end of the semester. Prerequisite: Consent of Instructor.

DIRECTORY OF FACULTY

- Demanche, Michel**..... **Associate Professor**
B.F.A., University of Texas; M.F.A., North Texas State University
- Harleston, Sheila** **Assistant Professor**
B.S. Norfolk State University; M.M. Norfolk State University; Ed.D., Wilmington University
- Harrington, Christopher** **Associate Professor**
B.A, Binghamton University; M.A., Teachers College, Columbia University; M.F.A., Maryland Institute, College of Art
- Hudson, Bradley** **Instructor**
B.A., University of Maryland, College Park; M.F.A., University of Maryland, College Park
- Knier, Veronica**..... **Instructor**
B.F.A., University of Connecticut; M.M., University of Connecticut
- Lamkin, John** **Instructor**
B.S., South Carolina State University; M.M., Morgan State University; Ph.D., University of Maryland, College Park
- Nagoski, Marcelle** **Instructor**
B.A., University of Delaware; M.M. Westminster Choir College - Rider University
- Perez, Brian**..... **Instructor**
B.M., University of Minnesota; M.M., Miami University
- Satchell, Ernest** **Professor**
B.S., University of Maryland Eastern Shore; M.Ed., Towson University; M.F.A., Towson University
- VanWagenberg, Anke** **Instructor**
M.A., University of Amsterdam; Ph.D., University of Amsterdam
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DEPARTMENT OF SOCIAL SCIENCES

www.umes.edu/SAPS

Dr. Jay Lowell Bishop, Chairperson

MISSION

The Department of Social Sciences provides a learning environment that values critical thinking about social dilemmas. The Department strives to help students to understand the world around them within a broad intellectual and ethical perspective. Students are challenged to apply this expanded world view to their professions. The Department promotes an understanding of cultures, the value of research and service to the community, the importance of social responsibility, and a commitment to social justice.

OBJECTIVES

The objectives of the Department of Social Sciences are to:

1. Encourage students to analyze the operation of their own and other societies.
2. Provide students with the scientific tools and cognitive skills to analyze societies.
3. Establish a forum within which students can learn to examine and evaluate, for themselves, the major social problems confronting their own and other societies.
4. Provide students with educational opportunities that will enable them to achieve their educational and career goals.

DEGREES OFFERED

Bachelor of Arts - African American Studies
Bachelor of Arts - History
Bachelor of Arts - Sociology
Doctor of Philosophy¹ - Organizational Leadership

GENERAL PROGRAM REQUIREMENTS

The admission of students to the undergraduate programs in the Department of Social Sciences is based upon the general admission requirements of the University.

DEPARTMENTAL REQUIREMENTS

African American Studies – The major must complete 120 semester hours of University courses. Included in the 120 semester hours are a minimum of 21 hours of courses at the 100/200 level, 26 to 30 hours at the 300/400 level, and 12 to 16 hours at the 400 level. A minimum grade of “C” must be achieved in these courses.

History – The major must complete 120 semester hours of University courses. Included in the 120 semester hours are a minimum of 36 hours of courses in history. A minimum grade of “C” must be achieved in these courses. The student must maintain a 2.5 overall GPA and 2.5 in the history courses.

Social Studies – The major must complete 129 semester hours of University courses. Included in the 129 semester hours are a minimum of 34 hours of courses in professional development courses, 42 hours in social studies specialization courses, and 12 hours in the Teaching Internship. Students must be admitted to into the Teacher Education Program which requires an overall grade point average of 2.75 and a passing score of the PRAXIS I test as set by the State of Maryland.

Sociology - The major must complete 120 semester hours of University courses. Included in the 120 semester hours are a minimum of 21 hours of required sociology courses and 15 hours of sociology electives. A minimum grade of “C” must be achieved in these courses. The student must maintain a 2.5 overall GPA and 2.5 in the sociology courses.

¹Please consult the UMES Graduate Catalog for further information.

CAREER OPPORTUNITIES

A degree in the fields of the social sciences prepares students to teach, to conduct social research, to go on to graduate programs and professional schools (such as law, social work, policy, and public administration), and to work in government, public policy, business, the non-profit sector and other areas where a strong background in the social sciences is needed.

AFRICAN AMERICAN STUDIES

The African American Studies program is a four-year, multi-disciplinary, non-teaching degree leading to the Bachelor of Arts (B.A.) in African American Studies. The major provides students with an objective of Africa and the African Diaspora in the United States. The program helps students gain an understanding of relevant historical, economic, social and political problems and possible resolutions.

DEPARTMENTAL REQUIREMENTS

The African American Studies major must complete 120 semester hours of University courses. Included in the 120 semester hours are a minimum of 21 hours of courses at the 100/200 level, 26 to 30 hours at the 300/400 level, and 12 to 16 hours at the 400 level. A minimum grade of "C" must be achieved in these courses. ARTS, MUSI, HIST, POLI, ENGL, SOCI and CRJS courses must be related to the field of African American Studies. Majors should check with their advisor to be sure that their selection fulfills the requirement.

COMMON REQUIRED COURSES

CRJS 101	ENGL 204	FREN 102	HIST 101
	ENGL 205	FREN 201	HIST 102
	ENGL 206	FREN 202	HIST 122
	ENGL 207		HIST 200A
MUSI 113B	SOCI 189	SPAN 101	
MUSI 116B	SOCI 201	SPAN 102	

REQUIRED MAJOR COURSES

Majors choose from a list of approved courses available in any department at the University.

CURRICULUM GUIDE FOR AFRICAN AMERICAN STUDIES¹

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
GEN ED CURR AREA I	3	MATH 102 or Higher	3
ECON 201 or		PSYC 200	3
ECON 202	3	GEN ED CURR AREA III ² or	4
HIST 100 ¹ or 200 Level	3	BUAD 213 or	
EXSC 111 ³	3	BUED 212	3
ENGL 101/Honors/Online	3	ENGL 102/Honors/Online	3
SOSC 100	<u>1</u>	ENGL 001	<u>0</u>
	16		15/16

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ARTS 100 ¹ Level or		CRJS 101 or	
ARTS 200 ¹ Level	3	CRJS 200	3
GEN ED CURR AREA III	4	MUSI 100 ¹ or 200 Level	3
SOCI 100 ¹ or 200	3	POLI 200	3
ENGL 203	3	THAR 100 ¹ or 200 Level	3
BUAD 212 or		ENGL 305/Honors/Online or	
BUED 213	<u>3</u>	ENGL 310/Honors/Online	<u>3</u>
	16		15

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 100 ¹ or 200 Level	3	ECON 300 or 400 Level	3
ARTS 300 or 400 Level	3	ENGL 300 or 400 Level	3
ENGL 300 or 400 Level	3	ENGL 100 or 400 Level	3
HIST 300 or 400 Level	3	HIST 100 or 400 Level	3
SOCI 300 or 400 Level	<u>3</u>	MUSI 300 or 400 Level	<u>3</u>
	15		15

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CRJS 100 or 400 Level	3	300 level or	
EDUC 100 or 400 Level	3	Higher Research Course	<u>13</u>
POLI 300 or 400 Level	3		13
PSYC 300 or 400 Level	3		
FREE Elective	<u>3</u>		
	15		

¹ARTS, MUSI, HIST, POLI, ENGL, SOCI, and CRJS courses must be related to the field of African and African American Studies. Majors should check with their advisor to be sure that a course fulfills requirement.

²Students must select a lecture and laboratory course to total four (4) credits.

³Course cannot be repeated for credit.

HISTORY

The History major offers students a detailed study of world civilizations with an emphasis on issues impacting our contemporary world. Students will develop critical skills needed to assess both primary and secondary sources to better understand the past.

DEPARTMENTAL REQUIREMENTS

The major must complete 120 semester hours of University courses. Included in the 120 semester hours are a minimum of 36 hours of courses in history. In addition, 18 semester hours of the history major must be in 300 or 400 level history courses. A minimum grade of "C" must be achieved in these courses. The student must maintain a 2.5 overall GPA and 2.75 in the History courses. Majors will also master research skills necessary to develop an historical argument or thesis. Students must complete 12 credit hours in a foreign language. Effective written communication is a significant emphasis.

COMMON REQUIRED COURSES

HIST 101	HIST 201	HIST 397	HIST 300/400 Level ²
HIST 102	HIST 202		
	HIST 221		

REQUIRED MAJOR COURSES¹

ARTS 211	ENGL 218	ECON 201 or	FREN or
ARTS 212	ENGL 346	ECON 202	SPAN ³

¹Required courses are column based.

²Student must complete 16 hours in 300/400 level History.

³Student must complete 12 hours in a Foreign Language.

CURRICULUM GUIDE FOR HISTORY

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
SOSC 100	1	ENGL 102	3
ARTS or		ARTS 211	3
MUSI or		MATH 102 or Higher	3
THAR or		BUED 212 or	
ENGL	3	BUED 213	3
ECON or		HIST 100 or 200 Lower Level	<u>3</u>
GEOG or			15
POLI or			
SOCI	3		
CRJS or			
HUEC or			
PSYC or			
SOCI or			
SOWK	3		
ENGL 101	<u>3</u>		
	13		

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 203	3	FREN or	
FREN or		SPAN	3
SPAN	3	ENGL 218	3
HIST 100 or 200 Lower Level	3	HIST 221	3
EXSC ¹ or		ARTS 211 or	
BUAD or		ARTS 212	3
ENGL or		BIOL or	
SOWK or		CHEM or	
SOCI or		PHYS or	
POLI or		ENVS or	
EDCI or		PLSC or	
EDSP or		ANPT	<u>4</u>
P SYC	3		16
BIOL or			
CHEM or			
PHYS or			
ENVS or			
PLSC or			
ANPT	<u>3</u>		
	15		

¹EXSC 111 cannot be repeated for credit.

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 346	3	ARTS 300 or 400 Level or	
GEN CURR AREA VI	3	MUSI 300 or 400 Level or	
HIST 100 or 200 Lower Level	3	THAR 300 or 400 Level or	
ECON 201 or		ENGL 300 or 400 Level	3
ECON 202	3	FREN or	
FREN or		SPAN	3
SPAN		HIST 100 or 200 Lower Level	3
ARTS 300/400 Level or		ENGL 305/Honors/Online or	
MUSI 300/400 Level or		ENGL 310/Honors/Online	3
THAR 300/400 Level or		HIST 300 or 400 Upper Level	<u>3</u>
ENGL 300/400 Level	<u>3</u>		15
	15		

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
HIST 300 or 400 Upper Level	3	HIST 300 or 400 Upper Level	3
HIST 300 or 400 Upper Level	3	HIST 300 or 400 Upper Level	3
HIST 300 or 400 Upper Level	3	FREE Elective	3
FREE Elective	3	FREE Elective	3
FREE Elective	<u>3</u>	FREE Elective	1
	15	HIST 497	<u>3</u>
			16

Total Credit Hours: 120

SOCIAL STUDIES TEACHER EDUCATION

The Social Studies Education major must complete 129 semester hours of University courses. Included in the 129 semester hours are a minimum of 34 hours of courses in professional development courses, 42 hours in social studies specialization courses, and 12 hours in the Teaching Internship. Students must be admitted to the Teacher Education Program which requires an overall grade point average of 2.75 and a passing score of the PRAXIS I test as set by the State of Maryland.

REQUIRED MAJOR COURSES

ECON 201	EDCI 200	GEOG 201	HIST 101	POLI 200
ECON 202	EDCI 201 ¹	GEOG 202	HIST 102	POLI 300/400 Level
	EDCI 306		HIST 201	SOCI 201
	EDCI 311		HIST 202	SOCI 221
	EDCI 400		HIST 300/400	SOCI 222
	EDCI 406			
	EDCI 409			
	EDCI 410			
	EDCI 425E			
	EDCI 480			
	EDCI 490			
	EDSP 428			
	PSYC 200			
	PSYC 303 ² or			
	PSYC 305 ²			
	PSYC 307			

¹Course does not count toward graduation.

²Student may select either PSYC 303 or PSYC 305.

**CURRICULUM GUIDE FOR SOCIAL STUDIES
TEACHER EDUCATION**

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 101	3	BIOL 101	3
ENVS 101	3	BIOL 103	1
SOCI 101	<u>3</u>	ENGL 102	3
SOSC 100	1	HIST 102	3
HIST 101	3	PSYC 200	3
MATH 102 or Higher	<u>3</u>	SOCI 201	<u>3</u>
	16		16

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ECON 201	3	ECON 202	3
EDCI 200	3	EDCI 306 or	
EDCI 201 ¹	1	Approved Course Substitute	3
ENGL 203	3	ENGL 305 Honors/Online or	
GEOG 201	3	ENGL 310 Honors//Online	3
HIST 201	3	GEOG 202	3
POLI 200	<u>3</u>	HIST 202	<u>3</u>
	18		15

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
EXSC 111 ²	3	SOCI 222	3
PSYC 303 or		EDCI 406 ³	3
PSYC 305	3	HIST 300 or 400 Level	3
EDCI 410 ³	3	EDCI 409 ³	3
HIST 300 or 400 Level	3	POLI 300 or 400 Level	3
SOCI 221	<u>3</u>	PSYC 307	<u>3</u>
	15		18

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
EDCI 311 ³	3	EDCI 400 ³	3
EDCI 425E ³	3	EDCI 4803	6
EDSP 428 ³	3	EDCI 490 ³	<u>6</u>
PSYC 307	3		15
HIST 300 or 400 Level	<u>3</u>		
HIST 300 or 400 Level	18		

Total Credit Hours: 129

¹Course does not count toward graduation.

²Course cannot be repeated for credit.

³Student must be admitted into the Teacher Education Program.

SOCIOLOGY

The Sociology major must complete 120 semester hours of University courses. Included in the 120 semester hours are a minimum of 21 hours of required sociology courses and 15 hours of sociology electives. Sociology majors must also complete six (6) additional hours in other Social Science areas (e.g., POLI, ECON, etc.). A minimum grade of "C" must be obtained in all major courses. Students must maintain a 2.5 overall GPA and 2.5 in sociology courses.

REQUIRED MAJOR COURSES

SOCI 101	SOCI 221	SOCI 303	SOCI 431
	SOCI 222		
	SOCI 231		
	SOCI 232		

REQUIRED SUPPORTIVE COURSES

MATH 109 PSYC 200

Six (6) additional hours in other Social Science areas (e., POLI, ECON, etc.).

CURRICULUM GUIDE FOR SOCIOLOGY

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
SOSC 100	1	BIOL 101	3
SOCI 101	3	BIOL 103	3
MATH 102 or higher	3	ENGL 102	3
GEN ED CURR AREA I ¹	3	PSYC 200	3
GEN ED CURR AREA II ²	3	GEN ED CURR AREA I ³	3
ENGL 101	<u>3</u>	EXSC 111 ⁴	<u>3</u>
	16		16

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
GEN CURR AREA II ⁵	3	SOCI Elective	3
ENGL 203	3	SOCI 222	3
ENVS 101	3	SOCI 232	3
SOCI 221	3	SOCI SCI Elective	3
SOCI 231	<u>3</u>	ENGL 305 Honors/Online or	<u>3</u>
	15	ENGL 310 Honors/Online	15

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
FREE Elective	3	SOCI 300 Level Elective	3
GEN ED CURR AREA VI	3	FREE Elective	3
SOCI Elective	3	FREE Elective	3
SOCI 300 Level Elective	3	FREE Elective	3
SOCI 300 Level Elective	<u>3</u>	GEN ED CURR AREA IV	<u>3</u>
	15		15

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
SOCI Elective	3	SOCI 431	3
FREE Elective	3	SOCI SCI Elective	3
FREE Elective	3	FREE Elective	3
FREE Elective	3	FREE Elective	3
FREE Elective	<u>3</u>	FREE Elective	<u>1</u>
	15		13

Total Credit Hours: 120

¹Student must select from GEN ED CURR AREA I:A

²Student must select from GEN ED CURR AREA II:A.

³Student must select from GEN ED CURR AREA I:B

⁴EXSC 111 **cannot** be repeated for credit.

⁵Student must select from GEN Ed CURR AREA II: B

SOCIOLOGY/SOCIAL WORK

The Dual Degree Program in Sociology (UMES) and Social Work (SU) has as its objective to prepare graduates for entry level professional social work positions, state social work licensure, and graduate education in social work. The program is made possible through the shared resources of the University of Maryland Eastern Shore (UMES) and Salisbury University (SU). UMES students can earn a Bachelor of Arts in Social Work (BASW) from SU and a Bachelor of Arts Degree in Sociology from UMES. The program is accredited by the Council on Social Work Education through SU.

DEPARTMENTAL REQUIREMENTS

The program can be completed in 120 credit hours. Included in the 120 semester hours are a minimum of 21² hours of required sociology courses and 15 hours of sociology³ electives. A minimum grade of "C" must be achieved in these courses by the fall of the Junior Year. The student must maintain a 2.5 overall GPA, a 2.5 in the sociology courses and a 2.7 in social work courses. Majors must be in their second semester and have junior standing and have completed 72 hours or, if graduating at the end of the fall semester, 57 hours. Students should have completed the following courses:

BIOL 101	PSYC 200	SOCI 101	SOWK 200
BIOL 103			SOWK 300
			SOWK 310

Students should either have completed or be enrolled in these courses:

SOCI 21	SOWK 302
	SOWK 320

ADMISSION PROCEDURES

To become a Social Work major is actually a two step process. The first step occurs at the University level where a student may indicate "social work" as a desired major at the time of admission to the University as part of the admissions process, or by completing a "Change of Major" form and filing the form with the Office of the Registrar some time after the initial admission and registration.

The second step occurs at the Department level during the Fall Semester of the Junior year. All students are required to complete an Application to Major in Social Work which is reviewed by the Social Work Department Admission Committee.

REQUIRED MAJOR COURSES

MATH 109	PSYC 200	SOCI 101	SOCI 431
		SOCI 221	SOCI Electives
		SOCI 222	SOCI SCI
		SOCI 231	
		SOCI 232	

¹Student must complete 15 hours in SOCI Electives.

²Student must complete six (6) hours in the Social Sciences.

CURRICULUM GUIDE FOR SOCIOLOGY/SOCIAL WORK

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
SOSC 100	1	BIOL 101	3
SOCI 101	3	BIOL 103	1
MATH 109	3	ENGL 102	3
ENGL 101	3	PSYC 200 ¹	3
GEN CURR AREA I ²	3	GEN CURR AREA I ²	3
GEN CURR AREA II ³	<u>3</u>	SOWK 200	<u>3</u>
	16		16

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
GEN CURR AREA IV	3	SOCI 300 Level Elective	3
ENGL 203	3	SOCI 222	3
SOWK 300 HSBE I	3	SOCI 303	3
SOCI 221	3	SOWK 301 HBSE II	3
SOWK 305	<u>3</u>	ENGL 305 or	<u>3</u>
	15	ENGL 310	<u>15</u>

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
SOWK 310	3	SOCI 232	3
GEN CURR AREA VI	3	SOWK Elective	3
SOCI 231	3	SOCI 300 Level Elective	3
SOCI SCI Elective	3	SOWK 320	3
SOCI 300 Level Elective	<u>3</u>	GEN CURR AREA III ⁴	<u>3</u>
	15		15

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
SOCI Elective	3	SOCI 431	3
SOWK 400	3	SOWK 410	3
SOWK 405	3	SOWK 407	3
SOWK 406	1	SOWK 408	1
FREE Elective	<u>3</u>	FREE Elective	<u>5</u>
	13		15

Total Credit Hours: 120

¹Course will satisfy GEN CURR AREA II:B

²Student must select from GEN CURR AREA I:C – Foreign Language.

³Student must select from GEN CURR AREA II:A.

⁴Student must select from GEN CURR AREA III:B – Sciences.

COURSE DESCRIPTIONS IN GEOGRAPHY

GEOG 201 The World Geography I Credit 3
This class focuses on the imprint of cultural traits, such as religion, language and livelihood systems, on the earth's landscape. The transformation of the earth's surface as a result of cultural diversity, settlement patterns, political organization, cultural evolution, and population growth are the major topic.

GEOG 202 The World Geography II Credit 3
This course is an introduction to the geographic characteristics of the development problems and prospects of developing countries. The focuses are spatial distribution of poverty, employment, migration and urban growth, agricultural productivity, rural development, policies and international trade. Portraits of selected developing countries are presented.

HISTORY

HIST 101 History of World Civilization I/Honors Credit 3
This course surveys and interprets the gradual evolution of civilization from ancient times to the Reformation. It examines major political and socio-economic achievements, stressing non-western and Greek, Roman, and Medieval contributions to world civilization.

HIST 102 History of World Civilization II/Honors Credit 3
The course is a continuation of HIST 11 1H and a survey of world history from the Reformation to contemporary times. Emphasis is given to the growth of strong nation states, revolutions, liberalism, nationalism and imperialism, and current problems resulting from two global wars and the end of the cold war.

HIST 150 History of Philosophy Credit 3
This is an introductory course in the study of Western philosophy. It uses the prism of history to develop an overview of the seminal philosophers over the past 2500 years. Philosophical study will include the Greek and medieval periods, the post-renaissance and enlightenment periods along with the Modern and late Twentieth Century periods. Meets CA I requirements.

HIST 200A Introduction to Modern African History Credit 3
This course is an outline of contemporary African History after 1700. The course will include colonialism the struggle for independence, and the problems of economic and social development in independent Africa.

HIST 201 History of American Civilization I Credit 3
This course is a survey of American history from the pre-colonial period to the Civil War. The topics covered are the colonialization of America, the institution of slavery, the American Revolution, the foundations of American government, and the roots of the Civil War.

HIST 202 History of American Civilization II Credit 3
This course is a continuation of HIST 201 and a survey of basic post -Civil War problems, movements, and trends, including Reconstruction, industrialization, the Great Depression, two world wars, the civil rights movement, and the cold war.

HIST 221 Historical Research Credit 3
Techniques and procedures in historical research are critically reviewed. The course provides an examination of the methods and functions of research in historical scholarship and requires preparation of an undergraduate history research paper. Prerequisite: A 100/200 level HIST course and HIST Major only.

HIST 275 Swahili: History, People, Language Credit 3
This course approaches learning about history and culture of East Africa through learning the Swahili language. Prerequisite: One 100/200 level history course.

HIST 333 African American History I Credit 3
This course surveys African American History from African roots to the Civil War. Prerequisite: A 100/200 level HIST course.

- HIST 334 African American History II From 1865 to Present Times Credit 3**
This is a study of African-American History from the civil war to the Twentieth Century. Prerequisite: A 100/200 level HIST course.
- HIST 351 Latin America Credit 3**
This course surveys the development of Latin America from the pre-colonial period to the colonization of Spain to Portugal, and to independence.
- HIST 360 Ancient African History Credit 3**
This is a study of African History from the beginning of recorded history to 1800. Prerequisite: A 100/200 level HIST course.
- HIST 361 African History After 1800 Credit 3**
This is a study of African colonial issues, the struggle for independence, the emergence of nation-states and current issues in Africa. Prerequisite: A 100/200 level HIST course
- HIST 405 Presidencies of the United States ~ Seminar Credit 3**
This course will require students to select a president to research and lead the seminar on the following issues about that president throughout the semester: Pre-presidential biography, congressional relationships, domestic policy, economic strategy, cabinet and court appointments, international relations, and effectiveness as commander-in chief. A major research paper is required. Prerequisite: One 100/200 level history course.
- HIST 414 Cross-Cultural Internship in Africa Credit 4-12**
Provides an elective opportunity for students to gain cross-cultural exposure and understanding in a grassroots African community. Approved students will spend one to three months at a community educational center in Uganda in East Africa to gain cross-cultural experience living and working under the supervision of Ugandan and American educators. Section 004 (1 month) 4 credits; Section 008 (2 months) 8 credits; and Section 012 (three months) 12 credits. Prerequisite: A 100/200 level HIST, registration in HIST 418 course and HIST Major only.
- HIST 418 Cross-Cultural Internship Seminar Credit 3**
Simultaneously accompanies HIST 414. Prior to going out and after returning, students will attend a group seminar, and during the internship, interns will produce written reflections on their daily experience. Students will present an extended paper on their internship experience. Prerequisite: A 100/200 level HIST, registration in HIST 414 course and HIST Major only.
- HIST 440 East Asia from 1600 to the Present Credit 3**
This course will examine the inter-related histories of China, Japan, and Korea. The economic, social, political, religious, and cultural developments of East Asia during major historic periods will be studied. Prerequisite: One 100/200 level history course.
- HIST 450 Southeast Asia: from 1600 to the Present Credit 3**
This course will survey the histories of the nations, which comprise Southeast Asia. The economic, social, political, religious, and cultural developments of Southeast Asia during major historic periods will be studied. Prerequisite: One 100/200 level history course.
- HIST 460 Russia: From 1600 to the present Credit 3**
This course will examine the transformation of Russia from a feudal civilization to a military superpower. Attention is given to Tsarist Russia, to the Communist Revolution of 1917, Communist Russia, and the post-Communist Russian Federation. The economic, social, political, religious, and cultural developments of Russia during major historic periods will be studied. Prerequisite: One 100/200 level history course.
- HIST 497 Senior Thesis Credit 3**
The senior thesis is the culmination of student learning, analysis, and research resulting in a major research paper. The paper will involve a thorough critical examination of a significant historical controversy or historiographical issue. Prerequisites: senior history majors only. Approved topic, approved research proposal, approved bibliography, and significant research completed.
- HIST 498 Independent Study of History Credit 3**
This course is an intensive study of special topics in history for advanced students. Prerequisite: Consent of instructor Prerequisite: HIST Major only.
- HIST 499 Independent Study of History Credit 3**
This course is an intensive study of special topics in history for advanced students. Prerequisite: Consent of instructor. Prerequisite: HIST Major only.

PHILOSOPHY

PHIL 201 Introduction to Logic

Credit 3

This course will be concerned with propositional logic, a major deductive system of symbolic logic. Attention will be paid to the uses of symbolic logic in identifying and evaluating reasoning in ordinary language arguments. Both traditional and symbolic logic will be studied. CA I requirements.

PHIL 202 Ethics

Credit 3

This course involves the study of the major philosophers (i.e., Aristotle, Hobbes, Hume, Mill, Kant, etc.). Their distinctive approaches to ethics are presented. Also explored will be the relevance of their views to current debates in moral philosophy. Fundamental questions will be used that reflect on ethical issues. Meets GEN ED CURR AREA I requirements.

POLITICAL SCIENCE

POLI 200 Introduction to American Government

Credit 3

This course presents a critical study of the American political system in its contemporary context: policy-making processes, sources of conflict processes.

POLI 312 International Relations

Credit 3

The course is a study of basic components of national power and the foreign policy objectives of major nations. Proposed theories explaining the behavior of nations will also be explored.

POLI 498 Independent Study

Credit 1-3

The students with the directed guidance of the instructor, undertakes an in-depth study of a specialized area of political science. Prerequisite: Consent of instructor.

POLI 499 Independent Study

Credit 1

The study with the directed guidance of the instructor, undertakes an in-depth study of a specialized area of political science. Prerequisite: Consent of instructor.

SOCIAL SCIENCE

SOSC 100 First Year Experience

Credit 1

This basic seminar introduces the topics of mental health and effectiveness in changing world. This is an applied course to guide the student through a self-assessment process that includes developing a personal plan for academic success. Required course for all social science majors.

SOCIOLOGY

SOCI 101 Introduction to Sociology/Online

Credit 3

This class is intended to provide the student with an introduction to current theories and methods of sociology. Particular attention is paid to social structure, culture, socialization, and social inequality. Prerequisite: Not open to first time Freshman.

SOCI 201 Social Problems/Online

Credit 3

This course presents an analysis of the major social problems affecting modern society, social legislation relating to these problems, resources for treatment and prevention, and deficiencies in existing programs.

SOCI 202 Social Deviance and Social Control

Credit 3

Theories of deviance causation and their relevance to analysis of particular types of deviance, such as suicide, mental illness, addiction, sexual deviance are discussed. Investigation of the relationships between deviant and the social reaction of such behavior is the focus of the class. Prerequisites: SOCI 101 or 201.

SOCI 250 Juvenile Delinquency

Credit 3

The course juvenile delinquency is an introduction to theories of Juvenile delinquency and alternative intervention strategies for reducing the prevalence of juvenile delinquency. Prerequisites: SOCI 101 or 201.

- SOCI 303 Social Inequality Credit 3**
 This course investigates social differentiation, its influence upon behavior, and studies of social mobility patterns and their effects on this mobility. The course considers inequality that is present in both an American and International context. Prerequisites: SOCI 101 or 201.
- SOCI 306 Socialization Credit 3**
 This course covers the development of personality and the acquisition of the roles, norms, attitudes, and actions that enable a person to function as a member of social groupings. Prerequisites: SOCI 101 or 201.
- SOCI 221 Research Methods in Behavioral Science Credit 3**
 This is the first semester of a two-semester sequence. The first semester is devoted to the methods used in collecting data in the social sciences, including various measurement methodologies. Prerequisites: SOCI 101 and Math 109.
- SOCI 222 Statistical Methods in Behavioral Science Credit 3**
 This course, the second of a two-semester sequence is devoted to the statistical analysis of data, including statistical computations, interpretations, and reporting of findings. Prerequisites: SOCI 101 and Math 109.
- SOCI 313 Criminology and Penology Credit 3**
 This class provides an overview of contributions of the various schools to the development of criminology. Theories of physical, psychological, and environment factors in crime are presented. The role of the home and family, social relationships, and the methods and instrumentalities of criminal justice, and crime prevention are central to the class. Prerequisites: SOCI 101 of SOCI 201.
- SOCI 316 Marriage and Family Life Credit 3**
 The major focus of the course is given to preparation for marriage, selection of a partner, financing the marriage, problems of parenthood and family administration, successful and happy marriage, and family union. Prerequisite: SOCI 101 or 201.
- SOCI 320 Social Movement and Social Change Credit 3**
 This class is an examination of collective behavior; it considers strategies and actions of movements, as well as examines of their characteristics, membership, and structure. The relationship of the social system and its changes to the social movements will also be examined. Prerequisite: SOCI 101 or 201.
- SOCI 326 Social Psychology Credit 3**
 This course considers personality and behavior as influenced by culture and interpersonal behavior. Social influences on motivation, learning, perception, attitudes, language, and leadership are reviewed. Prerequisites: SOCI 101 or SOCI 201.
- SOCI 331 American Minority Groups Credit 3**
 This class is a study of the cultural background distribution, assimilation, and adjustment of minority groups; problems arising from the contacts among people who differ as to race and culture are examined. Prejudice and discrimination will be considered. Prerequisites: SOCI 101 or SOCI 201.
- SOCI 334 Sociology of Mental Health Credit 3**
 This course examines the practices relating to mental health in the US and other advanced industrial societies. Special attention is given to the role of economic, politics, and culture in shaping these practices and in affecting the nature and organization of mental health care. Prerequisites: SOCI 101 or 201.
- SOCI 340 Small Group Analysis Credit 3**
 The course is a study of small group structures and processes and the emergence of various structures. The course also includes techniques for the analysis of small groups. Prerequisites: SOCI 101, SOCI 201.
- SOCI 344 Social Organizational I Credit 3**
 This course reviews rational, natural, and open perspectives on formal organization. It focuses on the roots of organizational theory and recent attempts to combine those perspectives. Prerequisite: SOCI 101 or 201.

SOCI 345 Organizational Social Psychology Organizational Dynamics I Credit 3
This course provides an understanding of managerial behavior in an organizational setup. It deals with individual attitudes and behavior in interpersonal and intra-group relationships, with a specific goal to improve awareness, perception, and understanding of one's own and other's points of view and behavior. Prerequisites: SOCI 101 or 201.

SOCI 361 Social Gerontology Credit 3
The course is a sociological consideration of the aging process and the role of the elderly in modern American society. Attention is paid to the changing role of the elderly in society and to the connection of aging to the social, economic, and political structures of society and their change over time. An intentional comparison of the social status of age groups is examined. Prerequisites: SOCI 101 or SOCI 201.

SOCI 490 Sociological Internship Credit 3
Approved students are assigned to approved agencies or organizations for orientation and experience in a sociological field under the guidance of a trained professional, as well as a member of the University faculty. Prior to going out and after return, students attend a seminar. Students present an extended paper on their internship experience. Prerequisites: Thirty hours of Sociology, Senior Standing, cumulative grade point average of 2.25 or better, and permission of supervising instructor. Prerequisites: Senior sociology majors only.

SOCI 498 Independent Study in Sociology Credit 3
This class is an intensive study of specialized topics in Sociology for advanced students. Permission to take an independent study must be obtained from the instructor.

SOCI 499 Independent Study in Sociology Credit 3
This class is an intensive study of specialized topics in Sociology for advanced students. Permission to take an independent study must be obtained from the instructor.

SOCIAL WORK

SOWK 200 Introduction to Social Work and Social Welfare/Honors Credit 3
This course is the introductory course to the social work profession. It examines the social welfare system as society's response to human need and as a structure for delivery of social services. An overview of the fields of social welfare service and the social work roles in each field are provided. Twenty-five additional hours of volunteer service in a social agency are required.

SOWK 300 Human Behavior in the Social Environment I/Honors Credit 3
This course focuses on the inter-relationships of biological and psychosocial factor in human development throughout the life span. It examines the dynamics of human behavior in a social context, with beginning level social assessment. Prerequisites: SOWK 200, BIOL 101, SOCI 101, PSYC 200, or consent of instructor.

SOWK 302 Human Behavior in the Social Environment II/Honors Credit 3
This course studies human behavior as it is affected by race, class, gender, and sexual orientation. It highlights the experience of oppression and its impact on families and groups. It includes strategies to bring about social change in organizations and communities. Prerequisites: SOWK 200 and 300.

SOWK 350 Social Work Policy/Honors Credit 3
This course provides an historical and analytical overview of social welfare in the United States. It offers selective examinations of contemporary programs and services, analyses of alternative issues and problems, and evaluations of programs and services and their effectiveness. Prerequisites: SOWK 200.

SOWK 310 Basic Interviewing Skills and Techniques Credit 3
This course develops students' basic interviewing skills for assessing, goal setting, and intervention in social work settings. Its emphasis is on skill application with diverse populations. Students will also explore their personal values and belief systems.

SOWK 320 Social Work Practice I Credit 3
This is the first of three practice courses preparing students for a generalist approach to social work practice. Its emphasis is on the knowledge, values, ethics, and skills needed to develop effective helping relationships. It includes basic theories for intervention with a focus on micro level problem solving and basic interviews skills. Prerequisites: SOWK 200, 300 and 310.

- SOWK 350 Social Work with Older People Credit 3**
 This course is a study of older Americans and of the programs and policies designed to support them. It reviews social work practice skills in providing direct service to older people. Prerequisites: SOWK 200.
- SOWK 400 Social Work Practice II Credit 3**
 This is the second of three practice courses preparing students for a generalist approach to social work practice. It expands on the basic knowledge, values, ethics, and skills, with an emphasis on mezzo level problem solving. It includes theories and techniques for planning assessment and advocacy for family and small group intervention. Prerequisites: SOCI 309 or SOWK 315 and 320. Co-requisite: SOWK 406 or 407 and admission to the professional program.
- SOWK 405 Field Instruction in Social Work Credit 3**
 This course is the supervised experience in a social welfare agency with emphasis on methods and techniques in generalist social work practice. It provides an opportunity to apply theory and develop skills in delivery of social services. Co-requisites: SOWK 400 and 406. Prerequisites: SOWK 302, SOCI 309 or SOWK 315 and 320, and admission to the professional program. Students volunteer two days per week in an agency.
- SOWK 406 Field Instruction Seminar I Credit 1**
 This course is the weekly on-campus seminar students enroll in concurrently with Field Instruction I. Its format is small group discussions of field experiences with related written assignments. Co-requisites: SOWK 400, 405 Prerequisite: SOWK 320. One hour per week.
- SOWK 407 Field Instruction in Social Work II Credit 3**
 This course is the continuation of the direct experience in the delivery of social services within an assigned agency. There is an increased emphasis on assessment, intervention, and evaluation skills of generalist social work. Co-requisite: SOWK 410 and 408. Prerequisite: SOWK 405 and 406. Students volunteer two days per week in an agency.
- SOWK 408 Field Instruction Seminar II Credit 1**
 This course is the weekly on campus seminar students enroll in concurrently with Field instruction II. Its format is small group discussion of field experiences with related written assignments. Co-requisites: SOWK 407 and 410. Prerequisites: SOWK 405 and 406.
- SOWK 410 Social Work Practice III Credit 3**
 This is the third of three practice courses preparing students for a generalist approach to social work. It expands on the basic knowledge, values, ethics, and skills, of the two previous courses with an emphasis on macro level problem solving. It includes theories and techniques needed for practice within an organizational or community context. Prerequisite: SOWK 400. Co-requisites: SOWK 407 and 408.
- SOWK 450 Social Work with Families/Children Credit 3**
 This course is a survey of child welfare services and examination of current policies in social work for children and their families. It considers practice issues in protective services; in-home services to families; and substitute care including adoption and foster care. Prerequisites: SOWK 200.
- SOWK 455 Substance Abuse: Issues and Services Credit 3**
 This course is a study of alcohol and drug abuse and services related to them. The topics include theoretical perspectives on abuse, pharmacological characteristics of commonly abused substances, and stages of dependence and addiction. An overview of societal responses to substance abuse, including new enforcement, treatment, rehabilitation, and prevention, is included. Prerequisites: SOWK 200.
- SOWK 460 Social Work in Corrections Credit 3**
 This course reviews social work interventions in a variety of correctional settings. It focuses on the professional role in court and correctional procedures within institutional and community based programs. Prerequisites: SOWK 200.
- SOWK 465 Social Work in Health Care Credit 3**
 This course explores the role of social work practice in various health care settings. Its emphasis is on the changing concepts of health and illness. It assesses the nature of health and illness. It evaluates the nature of health care organizations, funding mechanisms, and ethical dilemmas in social work health care. Prerequisites: SOWK 200.

SOWK 470 Social Work in Mental Health Credit 3
This course investigates the role of the social work profession within the mental health delivery system, utilizing a generalist social work approach. It includes social work and mental health concepts, policies, research methods, and program development examined in social service agencies, community mental health facilities, and institutional accommodations. Prerequisites: SOWK 200.

SOWK 475 Social Work With Persons Who Has Disabilities Credit 3
This course provides an overview of physical, social, and emotional implications of disabilities within the context of generalist social work practice. The topics include sensitivity to discrimination in society, laws, and available service and personal and family adjustment to disability. Prerequisites: SOWK 200.

SOWK 484 Social Work and the Law Credit 3
This course is a study of social welfare, family, consumer law, and the legal authority of social agencies to make regulations. It reviews guidelines for court testimony and rules of evidence. Prerequisites: SOWK 200.

SOWK 490 Individual Directed Study Credit 1-3
This course enables advanced students to pursue topics of their own choosing with the guidance and supervision of the faculty. This course cannot duplicate any course in the department. For Independent Study, the student must have the written consent of the instructor prior to enrolling in the course. Prerequisites: SOWK 200

SOWK 499 Independent Study/Special Topics Credit 3
This course provides opportunities for investigating special themes or issues of interest to students and the social work profession. It may be repeated once under a different subtitle. For Independent Study, the student must have the written consent of the instructor prior to enrolling in the course. Prerequisites: SOWK 200.

DIRECTORY OF FACULTY

Alston Jr., David **Associate Professor**
B.A., North Carolina Central University; M.R.P., University of North Carolina; Ph.D., North Carolina State University

Barrett-Gaines, Katherine **Associate Professor**
B.A., Fordham University; M.A., University of Maryland Baltimore County; M.A., Duke University; M.A., Stafford University; Ph.D., Stafford University

Bishop, Jay **Associate Professor**
B.A., Ohio University; M.S.S.W., University of Louisville; Ph.D., Case Western Reserve University

Hopwood, Junior **Visiting Lecturer**
B.S., University of the West Indies—Trinidad and Tobago; M.S., University of West Indies—Jamaica; Ph.D., Howard University

Raymond, James **Associate Professor**
B.A., Salisbury University; M.A., Salisbury University; Ph.D., Wilmington College

Rebach, Howard **Professor**
B.A., University of Maryland, College Park; M.A., University of Maryland, College Park; M.A. Salisbury University; M.S.W., University of Maryland at Baltimore; Ph.D., Michigan State University

DEPARTMENT OF BUSINESS, MANAGEMENT AND ACCOUNTING

www.umes.edu/SBT

Dr. Kate Brown, Chairperson

MISSION

The mission of the Department of Business, Management and Accounting at the University of Maryland Eastern Shore is to deliver high quality management education to students majoring in Accounting, Business Education, and Business Administration, as well as to provide core management courses to other majors throughout the University. The mission is accomplished primarily through instruction, supported by instructional development, applied research, and service. The focus is on breadth in curricula that facilitates employment and professional career development in the private, public, and not-for-profit sectors of a global economy. In addition, the Department's curricula are designed to enhance students' awareness of the moral and ethical issues confronting organizations. The role of technology in the decision-making process is emphasized by the integration of computer concepts and applications throughout the curricula. The Department's diverse, multicultural student body is assisted in the development of high-level intellectual, interpersonal, technical, and communication skills. The Department is committed to being a regional leader in the preparation of students for viable careers in the 21st Century.

OBJECTIVES

The objectives of the programs offered in the Department of Business, Management and Accounting are to:

1. Stimulate the intellectual curiosity of students and faculty as they discover new knowledge;
2. Enhance the students' problem solving and critical thinking skills;
3. Sponsor activities that enhance students' professional and social development;
4. Promote an understanding of the economic, ethical, and legal environment in which we live and businesses operate;
5. Provide practical management learning experiences through internship and/or cooperative programs;
6. Foster an awareness of ethical and global issues facing decision makers;
7. Prepare students for careers in professional accounting and managerial positions;
8. Prepare secondary school teachers in the area of business education;
9. Meet the standards of such external bodies as the AACSB, AICPA, The Maryland State Board of Accountancy, and The Maryland State Department of Education, NCATE, and the Middle States Commission on Higher Education;
10. Prepare students for graduate study.

DEGREES OFFERED

Bachelor of Science - Accounting
Bachelor of Science - Business Administration - General
Bachelor of Science - Business Administration – Finance Concentration
Bachelor of Science - Business Administration – Marketing Concentration
Bachelor of Science - Business Education

DESCRIPTION OF PROGRAMS

The programs offered in the Department of Business, Management and Accounting are grounded in the liberal arts. Nearly 50 percent of the curricula comprise general education and other liberal arts courses necessary for the development of each student's cognitive skills. These programs prepare students for professional careers in accounting and managerial positions. Accounting students are encouraged to meet the 150 credit-hour and residency requirements to sit for the Uniform Certified Public Accountants' Examination in their respective states. The Department plans to offer a Masters of Accountancy Degree Program to meet the legislated needs of accounting students.

The Department is committed to program enhancement and is currently pursuing Accreditation under the Association to Advance Collegiate Schools of Business - International (AACSB). The Accreditation Plan for the Department has been approved to allow the Department of Business, Management, and Accounting to continue to hold membership in the AACSB – International.

The Business Education major is the only accredited program of its kind in the State of Maryland. The program is designed to develop competencies among students to teach office administration, accounting, computer concepts and applications, and other business-related courses in secondary education.

GENERAL PROGRAM REQUIREMENTS

Overall Objectives

The overall objectives of the Departmental admission standards, effective from the Fall of 2001, are to promote high quality management education while maintaining high retention and graduation rates for students admitted to the programs offered in the Department of Business, Management and Accounting.

Criteria

Students admitted to the University who choose to major in business will be admitted unconditionally to the Department of Business, Management, and Accounting if they have a combined SAT score of 900 or higher on the Math and Verbal sections, or a total of 1350 or higher on the three component scores.

Students from other programs in the University can apply to change their major to those in the Department of Business, Management and Accounting if:

- a. They have earned 28 semester credit hours with a GPA of 2.5 or higher.
- b. They have earned grades of "C" or higher in MATH 109, ENGL 101, and ENGL 102; and
- c. They have passed the English Proficiency Examination.

All students must earn a grade of "C" or better in ENGL 101, ENGL 102, MATH 109, and all foundation knowledge and major course requirements.

Transfer Students

To major in the Department of Business, Management, and Accounting, students transferring to UMES must have a minimum GPA of 2.5 and be in good standing at their former institution(s). Transfer students with a GPA less than 2.5 will be considered for admission into the Department of Business, Management, and Accounting after earning 28 credits with a 2.5 GPA during the first year of study at UMES. Grades of "C" or better must be earned in MATH 109, ENGL 101, and ENGL 102, if not completed prior to transferring. Also, the English Proficiency Examination must be passed prior to admission to the Department.

GENERAL RESTRICTIONS

1. Junior and senior level course requirements for a degree in Business Administration, Accounting, and Business Education cannot be satisfied through credit by examination, independent study, or other non-traditional methods.
2. At least 50 percent of the business credit hours required for the business administration and accounting degrees must be earned at UMES.
3. There is no business concentration in the General Studies Program.
4. Repeat courses should be taken at UMES.

GENERAL INFORMATION

Professional Development

Professional development is an integral part of preparing to establish viable management/accounting careers in business, government, and nonprofit organizations. During their sophomore and junior years, students majoring in the Department must enroll in the 0.5 credit Professional Development courses. In addition, participation in departmentally sponsored activities and student organizations is required. Appropriate business attire is required for various functions. During the first semester of the freshman year, all students must acquire appropriate business attire. Guidance is provided by the Department.

Student Organizations

The following are departmentally sponsored Student Organizations: UMES Student Chapter of the National Association of Black Accountants (NABA), Students in Free Enterprise (SIFE), National Student Business League (NSBL), Student Advisory Board (SAB), the Student Chapter of the American Marketing Association (AMA), and Phi Beta Lambda.

Honor Society

Sigma Beta Delta, a national scholastic honor society in business/management is open to students majoring in the Department who rank in the upper 5 percent of their junior class with a minimum GPA of 3.3 or in the upper 10 percent of their senior class. Students are eligible for induction the semester after they have earned 75 credits at the University of Maryland Eastern Shore. At least 50 percent of all course work must be taken on a full-time basis. The degree program must be completed within 6 years of the starting date.

Communication Skills

Written and oral communication skills are extremely important. Standard English is required for all formal settings and submissions, such as classroom interactions, presentations, written assignments, etc.

Practical Experience

All students majoring in Business Administration and Accounting are required to acquire meaningful, practical experience in a business, government, or non-profit organization. This requirement can be met in a variety of ways, such as approved work experience, voluntary services, on-campus externship, and/or faculty directed consulting/research projects. No credit is earned for these experiences.

However, students desiring credit for an approved internship must submit for approval a job description and, subsequently, a performance appraisal letter from their supervisor. Following approval by the Department Chairperson (or his/her designee) and enrollment in BUAD 480, the student will write a reflective paper approximately 25 pages in length. The reflective paper should integrate classroom knowledge with practical experiences acquired during the internship. Keeping a daily log of internship activities/tasks is required.

Teaching Internship

The Teaching Internship is the culmination of the Business Education Program. It consists of two (2) full-time placements in two (2) different classroom settings for a total of 15 weeks. The Internship Block includes the Teaching Internship and the Senior Seminar.

Center for Management Assistance and Research(C-MAR)

Through the Center for Management Assistance and Research (C-MAR), the departmental faculty and students provide technical assistance to small and micro enterprises. Particular attention is given to the needs of minority/disadvantaged small and micro business owners, as well as business development in developing regions of the world such as Southern Africa. Self-reliance is stressed through the program's encouragement and support of the entrepreneurial spirit. In addition, emphasis is placed on applied management research relative to business, government, and non-profit organizations. The C-MAR also facilitates the Business, Management and Accounting Department's goal of integrating real-world experience into the curricula via internships, consulting projects, and research projects.

DEPARTMENTAL REQUIREMENTS

Accounting – Accounting majors complete 120 hours of course work, of which 41 hours are general education, 9 are supporting liberal arts, and the remaining 70 are foundation knowledge and major requirement courses. A minimum grade of “C” must be earned in ENGL 101, ENGL 102, MATH 109, and all foundation knowledge and major requirement courses.

Business Administration – Students choose between three concentrations in the Business Administration major.

1. The General Concentration requires 41 credits of general education courses, 15 credits of supporting liberal arts, and 64 credits of foundation knowledge and major subject requirements. A minimum grade of “C” must be earned in ENGL 101, ENGL 102, MATH 109, and all foundation knowledge and major requirement courses.
2. The Finance Concentration requires 41 credits of general education courses, 9 credits of supporting liberal arts, and 70 credits of foundation knowledge and major subject requirements. A minimum grade of “C” must be earned in ENGL 101, ENGL 102, MATH 109, and all foundation knowledge and major requirement courses.
3. The Marketing Concentration requires 41 credits of general education courses, 9 credits of supporting liberal arts, and 70 credits of foundation knowledge and major subject requirements. A minimum grade of “C” must be earned in ENGL 101, ENGL 102, MATH 109, and all foundation knowledge and major requirement courses.

Business Education – The Business Education major requires 41 credits of general education, 6 credits of supporting liberal arts, 39.5 credits of foundation knowledge and major subject requirements, and 41-42 credits of Teacher Certification Requirements.

ACCOUNTING

DEPARTMENTAL REQUIREMENTS

Accounting majors complete 120 hours of course work, of which 41 hours are general education, 9 are supporting liberal arts, and the remaining 70 are foundation knowledge and major requirement courses. A minimum grade of "C" must be earned in ENGL 101, ENGL 102, MATH 109, and all foundation knowledge and major requirement courses.

Students in the Honors program must select courses in the area of Honors Accounting.

OBJECTIVES

The objectives of the Accounting Program are to:

- Provide students with understanding of the concepts, structure and meaning of accounting and financial data with the ability to produce clear and concise financial reports.
- Provide students with understanding of the process of identifying, gathering, measuring, summarizing, and analyzing financial data in business organizations.
- Provide students with understanding of the concepts, methods and process of control that provides for accuracy and integrity of financial data and safeguarding of business assets.
- Provide students with understanding of the nature of attest services and the conceptual and procedural bases for performing them.
- Provide students with understanding of taxation and its impact on financial and managerial decisions.
- Provide students with the skills to enter graduate school and conduct research.

COMMON REQUIRED COURSES

ACCT 201	BUAD 213	BUED 101	FINA 340
ACCT 202	BUAD 252	BUED 102	MKTG 308
	BUAD 300	BUED 333	
	BUAD 302		
	BUAD 353		
	BUAD 354		
	BUAD 412		
	BUAD 495		

CAREER OPPORTUNITIES FOR ACCOUNTING

The accounting program is designed for students who plan to pursue careers in Public Accounting, Corporate Accounting, Government or Not-For-Profit Accounting and related fields. It is also designed to prepare students for advanced study in Accounting and related fields.

REQUIRED MAJOR COURSES

ACCT 301	ACCT 400	ACCT 405	BUAD 414
ACCT 302	ACCT 402	ACCT 407	
ACCT 303	ACCT 405		
ACCT 308			

Students must select one course:

ACCT 304	ACCT 309	ACCT 401	ACCT 410
ACCT 309		ACCT 409	

CURRICULUM GUIDE FOR ACCOUNTING

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BUED 100	1	ENGL 102	3
ENGL 101	3	GEN ED CURR AREA I ¹	3
MATH 109	3	GEN ED CURR AREA III ²	3
PSYC 200	3	BUAD 213	3
GEN ED CURR AREAIII ²	3	SOCI 101	<u>3</u>
GEN ED CURR AREA III ³	<u>1</u>		15
	14		

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ACCT 201	3	ACCT 202	3
BUAD 252	3	ACCT 308	3
ECON 201	3	BUED 101	.5
ENGL 203	3	ECON 202	3
GEN ED CURR AREA I ⁴	<u>3</u>	ENGL 305	3
	15	GEN ED CURR AREA I ⁴	<u>3</u>
			15.5

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ACCT 301	3	ACCT 303	3
ACCT 302	3	ACCT 400	3
BUAD 302	3	BUAD 353	3
BUED 333	3	BUED 102	.5
MKTG 308	<u>3</u>	FINA 340	3
	15	GEN ED CURR AREA I ⁵	<u>3</u>
			15.5

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
Elective ⁶	3	ACCT 405	3
ACCT 402	3	ACCT 407	3
BUAD 354	3	BUAD 300	3
BUAD 412	3	BUAD 414	3
PSYC 303 or		BUAD 495	<u>3</u>
PSYC 305 or			15
PSYC 307	<u>3</u>		
	15		

Total Credit Hours: 120

¹Student must select one course from GEN ED CURR AREA I:A or D

²Student must select one science course from GEN ED CURR AREA III

³Student must select one science laboratory from GEN ED CURR AREA III

⁴Student must select one course from GEN ED CURR AREA I:C

⁵Student select one course from GEN ED CURR AREA I:B

⁶Student must select an elective in the area of Accounting.

CURRICULUM GUIDE FOR ACCOUNTING HONORS

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BUED 100	1	ENGL 102H	3
ENGL 101H	3	GEN ED CURR AREA I ¹	3
MATH 111H	3	GEN ED CURR AREA III ²	3
PSYC 200	3	BUAD 213	3
GEN ED CURR AREA III ²	3	SOCI 101	<u>3</u>
GEN ED CURR AREA III ³	<u>1</u>		15
	14		

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ACCT 201	3	ACCT 202	3
BUAD 252.	3	ACCT 408	3
ECON 201H	3	BUED 101	.5
ENGL 203	3	ECON 202H	3
GEN ED CURR AREA I ⁴	<u>3</u>	GEN ED CURR AREA I ⁴	<u>3</u>
	15		15

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ACCT 301	3	ACCT 303H	3
ACCT 302H	3	ACCT 400H	3
BUAD 302H	3	BUAD 353	3
BUED 333	3	BUED 102	.5
MKTG 308	<u>3</u>	FINA 340	3
	15	GEN ED CURR AREA I ⁵	<u>3</u>
			15.5

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>First Semester</i>	<i>Credit</i>
Elective ⁶	3	ACCT 405H	3
ACCT 402	3	ACCT 407H	3
BUAD 354H	3	BUAD 300	3
BUAD 412	3	BUAD 414	3
PSYC 303 or		BUAD 495	<u>3</u>
PSYC 305 or			15
PSYC 307	<u>3</u>		
	15		

Total Credit Hours: 120

¹Student must select course from GEN ED CURR AREA I: A or D

²Student must select one science course from GEN ED CURR AREA III

³Student must select one science laboratory from GEN ED CURR AREA III

⁴Student must select course from GEN ED CURR AREA I:C

⁵Student must select course from GEN ED CURR AREA I:B

⁶Student must select course in the area of Honors Accounting.

BUSINESS ADMINISTRATION

DEPARTMENTAL REQUIREMENTS

Students choose between a major in the Business Administration or one of two concentrations.

1. The Business Administration General requires 41 credits of general education courses, 15 credits of supporting liberal arts, and 64 credits of foundation knowledge and major subject requirements. A minimum grade of "C" must be earned in ENGL 101, ENGL 102, MATH 109, and all foundation knowledge and major requirement courses. Students in the Honors program must select courses in the area of Honors Business Administration.
2. The Finance Concentration requires 41 credits of general education courses, 9 credits of supporting liberal arts, and 70 credits of foundation knowledge and major subject requirements. A minimum grade of "C" must be earned in ENGL 101, ENGL 102, MATH 109, and all foundation knowledge and major requirement courses.
3. The Marketing Concentration requires 41 credits of general education courses, 9 credits of supporting liberal arts, and 70 credits of foundation knowledge and major subject requirements. A minimum grade of "C" must be earned in ENGL 101, ENGL 102, MATH 109, and all foundation knowledge and major requirement courses.

OBJECTIVES

The objectives of the Business Administration – General Program are to:

1. To understand theories and concepts of organizational behavior and their management.
2. To provide opportunities for developing team-work skills.
3. To learn about and become sensitive to the rights and responsibilities of employers, employees and other stakeholders.
4. To develop successful management strategies through scientific methods, simulation and information technology.
5. To help generate critical thinking and problem solving skills to face global economic challenges.
6. Provide students with the skills to enter graduate school and conduct research.

COMMON REQUIRED COURSE

ACCT 201	BUAD 213	BUED 101	FINA 340
ACCT 202	BUAD 252	BUED 102	MKTG 308
	BUAD 300	BUED 333	
	BUAD 302		
	BUAD 304		
	BUAD 353		
	BUAD 354		
	BUAD 412		
	BUAD 495		

CAREER OPPORTUNITIES

A degree in Business Administration will allow students to pursue career opportunities in a variety of areas within the field of business including marketing, general management and human resource management. The program also prepares students to be admitted into advanced degree programs.

REQUIRED MAJOR COURSES

BUAD 410	BUAD 411	BUAD 420	FINA 341
	Students must select two courses:		
ACCT 301	BUAD 306	FINA 440	MKTG 314
ACCT 402	BUAD 313	FINA 441	MKTG 315
ACCT 408	BUAD 414	FINA 442	MKTG401
	BUAD 430	FINA 443	MKTG 404
		FINA 445	MKTG 406
		FINA 446	MKTG 409
			MKTG 410
			MKTG 421

CURRICULUM GUIDE FOR BUSINESS ADMINISTRATION - GENERAL

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BUED 100	1	ENGL102	3
ENGL 101	3	GEN ED CURR AREA I ¹	3
MATH 109	3	GEN ED CURR AREA III ²	3
PSYC 200	3	BUAD 213	3
GEN ED CURR AREA III ²	3	SOCI 101	<u>3</u>
GEN ED CURR AREA III ³	<u>1</u>		15
	14		

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ACCT 201	3	ACCT 202	3
BUAD 252	3	BUED 101	.5
ECON 201	3	ECON 202	3
ENGL 203	3	ENGL 305	3
GEN ED CURR AREA I ⁴	<u>3</u>	BUAD 300	3
	15	GEN ED CURR AREA I ⁴	<u>3</u>
			15.5

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BUAD 302	3	BUAD 306	3
BUAD 304	3	BUAD 354	3
BUAD 353	3	BUED 102	.5
BUED 333	3	FINA 340	3
MKTG 308	<u>3</u>	GEN ED CURR AREA I ⁵	3
	15	GEN ED CURR AREA ⁶	<u>3</u>
			15

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BUAD Elective ⁷	3	BUAD Elective ⁷	3
BUAD 412	3	BUAD 411	3
BUAD 410	3	BUAD 420	3
FINA 341	3	BUAD 495	3
GEN ED CURR AREA ⁶	<u>3</u>	PSYC 303 or	
	15	PSYC 305 or	
		PSYC 307	<u>3</u>
			15

Total Credit Hours: 120

¹Student must select course from GEN ED CURR AREA I: A or D

²Student must select one science course from GEN ED CURR AREA III

³Student must select one science laboratory from GEN ED CURR AREA III

⁴Student must select course from GEN ED CURR AREA I:C

⁵Student must select course from GEN ED CURR AREA I:B

⁶Student may select from one course from either GEN ED CURR AREA.

⁷Student must select 300 level or above Elective.

**CURRICULUM GUIDE FOR
BUSINESS ADMINISTRATION HONORS – GENERAL**

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BUED 100	1	ENGL102H	3
ENGL 101H	3	GEN CURR AREA I ¹	3
MATH 111H	3	GEN ED CURR AREA III ²	3
PSYC 200	3	BUAD 213	3
GEN ED CURR AREA III ²	3	SOCI 101	<u>3</u>
GEN ED CURR AREA III ³	<u>1</u>		15
	14		

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ACCT 201	3	ACCT 202	3
BUAD 252	3	BUED 101	.5
ECON 201H	3	ECON 202H	3
ENGL 203	3	ENGL 305	3
GEN ED CURR AREA I ⁴	<u>3</u>	BUAD 300	3
	15	GEN ED CURR AREA I ⁴	<u>3</u>
			15.5

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BUAD 302H	3	BUAD 300	3
BUAD 304	3	BUAD 354H	3
BUED 333	3	BUED 102	.5
FINA 340H	3	FINA 341H	3
MKTG 308	<u>3</u>	GEN ED CURR AREA I ⁵	3
	15	GEN ED CURR AREA ⁶	<u>3</u>
			15

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BUAD 306	3	BUAD 410	3
BUAD 411H	3	BUAD 412	3
BUAD Elective	3	BUAD 420	3
PSYC 303 or		BUAD Elective	3
PSYC 305 or		BUAD 495	<u>3</u>
PSYC 307	<u>3</u>		15
GEN ED CURR AREA ⁶	<u>3</u>		
	15		

Total Credit Hours: 120

¹Student must select course from GEN ED CURR AREA I: A or D

²Student must select one science course from GEN ED CURR AREA III

³Student must select one science laboratory from GEN ED CURR AREA III

⁴Student must select course from GEN ED CURR AREA I:C

⁵Student must select course from GEN ED CURR AREA I:B

⁶Student may select from one course from either GEN ED CURR AREA

BUSINESS ADMINISTRATION - FINANCE

OBJECTIVES

The objectives of the Business Administration – Finance Concentration Program are to:

1. Provide students with understanding of the concepts that underlie the raising and spending of capital.
2. Provide students with understanding of the process of cash flows within an organization.
3. Provide students with understanding of the concepts of forecasting and discounting to determine appropriate investments.
4. Provide students with understanding of the nature of financial markets and institutions in the current global context.
5. Provide students with understanding of finance as it relates to them.
6. Provide students with the skills to enter graduate school and conduct research.

COMMON REQUIRED COURSES

ACCT 201	BUAD 213	BUED 101	FINA 340
ACCT 202	BUAD 252	BUED 102	MKTG 308
	BUAD 300	BUED 333	
	BUAD 302		
	BUAD 304		
	BUAD 353		
	BUAD 354		
	BUAD 412		
	BUAD 495		

CAREER OPPORTUNITIES

A degree in Business Administration – Finance will allow students to pursue career opportunities in banking, business advising, budgeting, financial analysis, brokerage, and other finance related areas. The program also prepares students to be admitted into advanced degree programs.

REQUIRED MAJOR COURSES

BUAD 410	BUAD 411	BUAD 420	FINA 341
			FINA 440

Student must select four (4) courses:

FINA 441	FINA 443	FINA 445	FINA 490
FINA 442	FINA 444	FINA 446	FINA 491

CURRICULUM GUIDE FOR BUSINESS ADMINISTRATION – FINANCE

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BUED 100	1	ENGL102	3
ENGL 101	3	GEN ED CURR AREA I ¹	3
MATH 109	3	GEN ED CURR AREA III ²	3
PSYC 200	3	BUAD 213	3
GEN ED CURR AREA III ²	3	SOCI 101	<u>3</u>
GEN ED CURR AREA III ³	<u>1</u>		15
	14		

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ACCT 201	3	ACCT 202	3
BUAD 252	3	BUED 101	.5
ECON 201	3	ECON 202	3
ENGL 203	3	ENGL 305	3
GEN ED CURR AREA I ⁴	<u>3</u>	BUAD 300	3
	15	GEN ED CURR AREA I ⁴	<u>3</u>
			15.5

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BUAD 302	3	BUED 333	3
BUAD 304	3	BUAD 354	3
BUAD 353	3	BUED 102	.5
BUED 340	3	FINA 340	3
MKTG 308	<u>3</u>	GEN ED CURR AREA I ⁵	3
	15	PSYC 303 or	
		PSYC 305 or	
		PSYC 307	<u>3</u>
			15.5

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
FINA Elective	3	FINA 440	3
FINA Elective	3	FINA Elective	3
BUAD 411	3	FINA Elective	3
BUAD 412	3	BUAD 420	3
BUAD 410	<u>3</u>	BUAD 495	<u>3</u>
	15		15

Total Credit Hours: 120

¹Student must select course from GEN ED CURR AREA I: A or D

²Student must select one science course from GEN ED CURR AREA III

³Student must select one science laboratory from GEN ED CURR AREA III

⁴Student must select course from GEN ED CURR AREA I:C

⁵Student must select course from GEN ED CURR AREA I:B

BUSINESS ADMINISTRATION - MARKETING

OBJECTIVES

The objectives of the Business Administration – Marketing Concentration Program are to:

1. Provide students with understanding of the concepts and interactions between competitive forces and marketing strategies.
2. Provide students with understanding of the concepts, processes and metrics for optimizing the position of a product and the segments it serves.
3. Provide students with the ability to plan the allocation of resources between all elements of the marketing mix including brand equity creation.
4. Provide students with the ability to analyze the implications of institutional policies on firm profitability.
5. Provide students with understanding of the theories of consumer perception, learning, motivation and attitude formation.

COMMON REQUIRED COURSES

ACCT 201	BUAD 213	BUED 101	FINA 340
ACCT 202	BUAD 252	BUED 102	MKGT 308
	BUAD 300	BUED 333	
	BUAD 302		
	BUAD 304		
	BUAD 353		
	BUAD 354		
	BUAD 412		
	BUAD 495		

CAREER OPPORTUNITIES

A degree in Business Administration – Marketing will allow students to pursue career opportunities in all types of marketing positions in marketing research, advertising, retailing, ecommerce and international marketing. The program also prepares students to be admitted into advanced degree programs.

REQUIRED MAJOR COURSES

BUAD 410	BUAD 420	MKTG 401	MKTG 410
BUAD 411		MKGT 404	

Student must select three (3) courses:

MKTG 312	MKTG 315	MKTG 406	MKTG 421
MKTG 314		MKGT 409	

CURRICULUM GUIDE FOR BUSINESS ADMINISTRATION - MARKETING

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BUED 100	1	ENGL102	3
ENGL 101	3	GEN ED CURR AREA I ¹	3
MATH 109	3	GEN ED CURR AREA III ²	3
PSYC 200	3	BUAD 213	3
GEN ED CURR AREA III ²	3	SOCI 101	<u>3</u>
GEN ED CURR AREA III ³	<u>1</u>		15
	14		

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ACCT 201	3	ACCT 202	3
BUAD 252	3	BUED 101	.5
ECON 201	3	ECON 202	3
ENGL 203	3	ENGL 305	3
GEN ED CURR AREA I ⁴	<u>3</u>	BUAD 300	3
	15	GEN ED CURR AREA I ⁴	<u>3</u>
			15.5

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BUAD 302	3	MKTG Elective	3
BUAD 304	3	MKTG Elective	3
BUAD 353	3	BUAD 354	.5
BUED 333	3	BUED 102	3
MKTG 308	<u>3</u>	FINA 340	3
	15	GEN ED CURR AREA I ⁵	<u>3</u>
			15

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
MKTG Elective	3	MKTG 410	3
BUAD 411	3	MKTG 401	3
BUAD 412	3	MKTG 404	3
BUAD 410	3	BUAD 420	3
PSYC 303 or		BUAD 495	<u>3</u>
PSYC 305 or			15
PSYC 307	<u>3</u>		
	15		

Total Credit Hours: 120

¹Student must select course from GEN ED CURR AREA I: A or D

²Student must select one science course from GEN ED CURR AREA III

³Student must select one science laboratory from GEN ED CURR AREA III

⁴Student must select course from GEN ED CURR AREA I:C

⁵Student must select course from GEN CURR AREA I:B

BUSINESS EDUCATION PROGRAM

The objectives of the Business Education Program are to:

1. Provide students with the skills to create, analyze, revise and implement curricula to prepare learners for a dynamic and rapidly changing world and to assess learner progress.
2. Provide students with the skills to build relationships with various publics to produce a vibrant, holistic learning environment.
3. Provide students with a solid foundation in general education, business content areas, and professional studies.
4. Provide students with an understanding of the need to grow continuously as a professional.
5. Provide students with the skills to enter graduate school and conduct research.

COMMON REQUIRED COURSES

ACCT 201	BUAD 302	BUED 101	MKTG 308
ACCT 202	BUAD 304	FINA 340	
	BUAD 412		

CAREER OPPORTUNITIES

A degree in Business Education will allow students to pursue career opportunities in 5-12 schools, higher education, business, government, consulting, training, and with not-for-profit organizations. The program also prepares students to be admitted into advanced degree programs.

REQUIRED MAJOR COURSES

BUAD 213	BUAD 313	BUAD 430	BUED 333
BUAD 252			BUED 414

PROFESSIONAL EDUCATION REQUIREMENTS

EDCI 200	EDCI 400	EDSP 428	PSYC 305
EDCI 201 ^{1,2}	EDCI 406		PSYC 307
EDCI 311	EDCI 409		
	EDCI 410		
	EDCI 427B		
	EDCI 480B		
	EDCI 490B		

¹Course is only required for students who have not passed the PRAXIS Examination.

²Course does not count toward graduation.

CURRICULUM GUIDE FOR BUSINESS EDUCATION

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BUED 100	1	ENGL102	3
ENGL 101	3	PSYC 200	3
MATH 109	3	GEN ED CURR AREA I ¹	3
SOCI 101	3	BUED 213	3
GEN ED CURR AREA III ²	3	BUAD 252	<u>3</u>
GEN ED CURR AREA III ³	<u>1</u>		15
	14		

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ACCT 201	3	ACCT 202	3
EDCI 200	3	BUED 101	.5
ECON 201	3	ECON 202	3
ENGL 203	3	ENGL 305/Online	3
GEN ED CURR AREA III ²	3	BUAD 313	3
EDCI 201 ^{4,5}	<u>3</u>	GEN ED CURR AREA I ⁶	<u>3</u>
	15		15.5

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BUAD 302	3	BUED 414	3
BUAD 304	3	EDCI 406	3
BUED 333	3	EDCI 409	3
FINA 340	3	PSYC 307	3
PSYC 305	3	BUAD 412	<u>3</u>
MKTG 308	<u>3</u>		15
	18		

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
EDCI 311	3	EDCI 400	3
EDCI 410	3	EDCI 480B	6
EDCI 427B	3	EDCI 490B	<u>6</u>
EDSP 428	3		15
BUAD 488C	<u>3</u>		
	15		

Total Credit Hours: 120

¹Student must select course from GEN ED CURR AREA I: A or D

²Student must select one science course from GEN ED CURR AREA III

³Student must select one science laboratory from GEN ED CURR AREA III

⁴Course does not count towards graduation.

⁵Required until PRAXIS is passed.

⁶Student must select course from GEN ED CURR AREA I:B

MINOR PROGRAMS

The Department of Business, Management and Accounting offers minors in Accounting and Business Administration and these are available to students in major programs of study outside the Department of Business, Management and Accounting. Each minor program consists of 18 semester hours of program courses with a grade of "C" or better. Courses may not be used to fulfill graduation requirements in another major.

The Business Administration minor requires:

BUAD 302 BUAD 412	FINA 340	MKTG 308	Two 300-400 business electives
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The Accounting minor requires:

ACCT 201 ACCT 202,	ACCT 301 ACCT 302	ACCT 303	ACCT 402
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COURSE DESCRIPTIONS FOR ACCOUNTING

- ACCT 201 Introductory Financial Accounting/Hybrid Credit 3**
This course is the beginning study of financial accounting principles and concepts. Emphasis is on the conceptual understanding of accounting and its role in society. Practical applications of accounting concepts are demonstrated both manually and electronically. The focus is on accounting for sole proprietorships. Not open as free or program elective. Prerequisites: Grade of "C" in ENGL 101, ENGL 102, and MATH 109.
- ACCT 202 Introductory Corporate & Managerial Accounting/Hybrid Credit 3**
Financial accounting principles and concepts as they relate to partnerships and corporations are covered. Theory and practice applicable to income determination and asset valuation are considered. In addition, managerial and cost accounting topics are explored. Prerequisite: ACCT 201.
- ACCT 301 Cost & Budgetary Control Credit 3**
This course is a study of the basic principles of managerial accounting and the environment in which cost accounting information is developed and used for decision-making. Basic cost accounting concepts under job order and process costing systems and budgeting techniques are emphasized. Prerequisite: ACCT 202.
- ACCT 302 Intermediate Accounting I/Honors Credit 3**
The course involves an in-depth study of modern financial accounting, concepts, principles, practices, and the conceptual framework on which accounting is developed. The accounting cycle, adjusting entries, corporate transactions and the preparation of financial statements are emphasized. Prerequisites: ACCT 202.
- ACCT 303 Intermediate Accounting II/Honors Credit 3**
The course is a continued in-depth study of modern financial accounting as it relates to income determination, asset valuation, and stockholders' equity. International and ethical implications are considered. Prerequisite: ACCT 302.
- ACCT 304 Managerial Accounting Credit 3**
The course consists of a study of the usefulness of financial data and financial analysis in the management functions of planning, control, and decision-making. The course surveys the elements of cost, as well as the main aspects of the accounting structure. Prerequisite: ACCT 301.
- ACCT 308 Accounting Information Systems/Hybrid Credit 3**
The course provides a basis for understanding, using and controlling accounting information systems (AIS) as found in business organizations. The principle content areas include documentation of accounting information systems; security, privacy and ethics; internal control systems, AIS and business processes. Prerequisite: ACCT 201 with a grade of 'C' or better.
- ACCT 309 Financial Statement Analysis Credit 3**
This course investigates the use of financial statements from the view of main users of these statements. Prospective users include investors, financial analysts, and creditors who have to assess the information content of accounting numbers and the predictive value of accounting data. Balance sheet and Income Statement Information, Cash Flow Statements, profitability analysis, and ratio analysis and interpretation are covered. Prerequisite: ACCT 302, with a grade of "C" or higher.
- ACCT 400 Intermediate Accounting III/Honors Credit 3**
The course is a continued in-depth study of modern financial accounting. This course covers investments, earnings per share, revenue recognition, pensions, leases, accounting for changes and cash flows. Prerequisite: ACCT 302 with "C" grade or better.
- ACCT 401 Advanced Financial Accounting/Honors Credit 3**
The course is a study of specialized issues in partnerships, business combinations, consolidation of parent and subsidiary financial statements, segment reporting, foreign currency transactions and hedging, and foreign financial statements. Prerequisite: ACCT 303 with a grade of 'C' or better.
- ACCT 402 Federal Income Tax Accounting Individual/Honors Credit 3**
The course an in-depth study of tax provisions and planning for individuals. The basic procedures involved in the determination of income tax liability of individuals are performed. Prerequisite: ACCT 302.
- ACCT 405 Government and Non-Profit Accounting/Honors Credit 3**
Accounting principles and practices for governmental and not-for-profit organizations are covered with specific emphasis on state and local government units. The course also focuses on accounting and reporting issues in private not-for-profit organizations, such as hospitals and schools. Prerequisite: ACCT 302.

ACCT 407 Auditing/Honors/Hybrid Credit 3
This is a capstone course for accounting majors. Financial auditing principles, concepts and practices including professional ethics, statistical sampling techniques, and audit liability are covered. Work paper preparation and audit reports are an important part of the course. The use of audit software is required. A thorough understanding of financial accounting is required. This capstone course in Accounting is taken during the final semester of study. Prerequisites: Senior Standing, ACCT 303, ACCT 400.

ACCT 408 Accounting Information Systems/Honors Credit 3
The course provides a basis for understanding, using and controlling accounting information systems (AIS) as found in business organizations. The principle content areas include documentation of accounting information systems; security, privacy and ethics; internal control systems, AIS and business processes. Prerequisite: ACCT 201 with a grade of 'C' or better.

ACCT 410 CPA Problems Credit 3
A study, review, and analysis of the content, form, and scope of the CPA Examination. The purpose of the course is to prepare students to sit for the Certified Public Accountants Examinations. Prerequisite: Advanced standing with minimum of 18 credit hours, or permission of instructor.

ACCT 409 Forensic Accounting Credit 3
Forensic accounting deals with the relation and application of the accounting systems used to record and summarize business and financial transaction to a legal problem. This course encompasses both investigative accounting and litigation support, with emphasis on the following topics: protection and recovery of assets; investigating and analyzing financial evidence; developing computerized applications to assist in the analysis and presentation of financial evidence; communicating findings in the form of reports and collections of documents; and assisting in legal proceedings, including testifying in court as an expert witness and preparing visual aids to support trial evidence. Prerequisites: ACCT 303 and ACCT 400.

ACCT 498 Independent Study in Accounting Credit 3
The hours for this course are by arrangement with designated or individual faculty. Under the guidance of the faculty member, students conduct an intensive investigation of a topic within the field of accounting. A written proposal is required for approval. Projects typically include library research, interviews with operating and/or staff managers, and other requirements appropriate to the topic. One of the products of this project is a report. Prerequisites: BUAD 302 and permission of instructor.

BUSINESS ADMINISTRATION

BUAD 132 Introduction to Business Credit 3
A course designed to acquaint students with the way in which business enterprises are owned, organized, managed, and controlled. It provides a broad background in common business practices by surveying the entire field of Business Administration. Not open as Free or Program Elective for business majors.

BUAD 213 Business Software Applications/Hybrid/Online Credit 3
The course is designed to develop advanced computer application competencies. Emphasis is placed on the use of various software packages in accessing and processing large quantities of data for decision making and developing practical methods for using the computer to solve quantitative business/management problems. Coverage will include advanced use of Operating System and Application Software related to spreadsheets, graphics, databases, and statistical analysis (SAS or SPSS), as applied in business and industry.

BUAD 252 Calculus with Business and Management Applications Credit 3
The course focuses on development and review of mathematical techniques in Linear Algebra and Calculus for applications in a wide variety of courses in Business and Management. Emphasis is on those techniques which are required for an understanding of Business Statistics, Operations Research, Decision Theory, and Economic Theory. Prerequisite: MATH 109.

BUAD 300 Business Ethics/Online Credit 3
The purpose of this course is to assist students in understanding ethical implications in the decision-making process and to assume their role as managers with a sense of a broader purpose and a moral consciousness. Concepts and principles are discussed in light of problem situations with ethical implications, with a focus on the development of critical and analytical thinking. Prerequisite: Sophomore standing.

- BUAD 302 Management and Organizational Behavior/Hybrid/Honors Credit 3**
This course is designed to develop a full understanding of the role of business organizations and their effective management. It deals with principles and practices of management and theory and analysis of organizations. Course content includes historical background of management theory and analysis of organizations, principles and processes of management functions, leadership, communication, and morale. Prerequisite(s): Junior standing and ECON 201, ECON 202, ACCT 201 and ACCT 202, PSYC 200, and SOCI 101. Fashion Merchandising majors only: ECON 202 and permission of the respective Department Chairs.
- BUAD 303 Advanced Organizational Behavior Credit 3**
This course provides an understanding of managerial behavior in an organizational setting. It explores individual attitudes and behavior in interpersonal and intra-group relationships, with the specific goal of improving awareness, perception, and understanding of one's own and others' points of view and behavior. Prerequisite: BUAD 302.
- BUAD 304 Small Business Management and Entrepreneurship/Hybrid Credit 3**
Development and assessment of the viability of small and micro business ventures are the focus of this course. Emphasis is on the business planning process, the management of small enterprises, feasibility studies, formulation of business plans, risk management, and entrepreneurial characteristics. Not open as Free or Program Elective. Prerequisites: BUAD 302 and Junior standing.
- BUAD 306 Human Resource Management Credit 3**
This course involves a study of company personnel objectives, programs, policies and procedures relating to manpower planning, recruitment, selection, training and development, compensation, and employee appraisal. Prerequisites: BUAD 302 and Junior standing.
- BUAD 307 Industrial Relations Credit 3**
Emphasis is on union-management relations and their effect upon personnel programs and economic and legal analysis of the union/management activities: collective bargaining trade agreements, strikes, boycott and lock-out; arbitration, mediation and conciliation, company unions, employee representation, and injunctions. Prerequisite: Junior standing.
- BUAD 313 Advanced Business Applications/Hybrid Credit 3**
The course is designed to develop computer application techniques for skilled users. Emphasis is placed on more advanced commands and techniques as applied in business and industry. Prerequisite: BUAD 213
- BUAD 353 Business Statistics I/Honors Credit 3**
The course deals with descriptive as well as inferential statistics with specific reference to business. Major topic areas covered are measures of central tendency, variation, probability, estimation, and test of hypothesis. Prerequisite: BUAD 252.
- BUAD 354 Business Statistics II/Hybrid/Honors Credit 3**
Advanced inferential statistics are emphasized. The topics covered include time series, regression analysis, chi-square test, and analysis of variance as these relate to solutions to business and economic problems. Prerequisite: BUAD 353.
- BUAD 410 Production Management/Hybrid/Honors Credit 3**
Emphasis is placed on production management, planning, and control in service and manufacturing enterprises. Topics include quality management, process selection, demand forecasting, materials planning and control, and capacity planning. Case studies are used to analyze the manufacturing and service environments in terms of operational planning, the use of teams, teamwork, and decision making regarding problems commonly confronting managers and supervisors in national and transnational production organizations. Prerequisites: BUAD 302, BUAD 354, and FINA 340.
- BUAD 411 Operations Research and Decision Theory/Hybrid/Honors Credit 3**
The course is designed to acquaint students with the latest Operations Research and Decision Analysis techniques. It includes Linear Programming, Transportation, Queuing, Algorithm simulations and other models. Prerequisite(s): BUAD 252 and BUAD 354 or MATH 112 and MATH 210.
- BUAD 412 Business Law I Credit 3**
The study of laws governing commercial and business transactions are emphasized. Major areas of consideration are the forces that determine business laws, contracts, commercial paper, and bailment's. Prerequisites: BUAD 302.

- BUAD 414 Business Law II Credit 3**
The course will continue the emphasis on private law partnerships, corporations, risks, and property. It also examines public laws pertaining to government regulations of business competition, markets, and labor relations. Prerequisites: BUAD 412.
- BUAD 420 International Business Credit 3**
This course is designed to develop an understanding of the various interdisciplinary factors bearing on the operations of businesses in a global economy. Emphasis is on the economic, political and social environment. Prerequisites: BUAD 302.
- BUAD 480 Directed Study and Practical Applications in Business and Accounting Credit 3**
This course is designed to reinforce knowledge in certain specialized areas of study. It is structured to meet the needs of the students taking the course. Enrolled students are assigned to faculty advisors with whom they work out specific plans of study. Students will have the primary responsibility of completing all assignments. Approved internships with written projects are also appropriate. Prerequisite(s): Senior standing and consent of the Chair.
- BUAD 488A Business and Economic Indicators Credit 3**
This course provides a framework to illustrate how important economic indicators interact and how their changes affect business decisions. The identification of major supply side and demand side economic indicators is followed by analysis of their effects at firm, industry sector, and macroeconomic levels. Topics covered include Federal Reserve policy on interest rates, GDP growth rate, unemployment rate, business inventories, consumer confidence, and consumer price index. Prerequisites: ACCT 202, ECON 201 & 202, BUAD 302, MKTG 308.
- BUAD 488C Ethical, Economic, Managerial and Societal Considerations of Technological Information Systems Credit 3**
This course will examine the evolution of technological systems exploring the impact on business, economics, knowledge acquisition, and society. Management considerations, system options, technology adoption models, major theories, security and data control issues, and factors that can either stimulate or deter technological implementation will be covered. The role of enterprise resource planning in supply chain, data, customer relationship, human resource, financial, and project management will be discussed. Critical legal and ethical issues will also be explored.
- BUAD 490 Senior Seminar in Business Credit 3**
Topics of current interest are announced before registration. The course provides opportunity for individualized, in-depth study with presentation to and criticism by peers. Prerequisite: Senior standing.
- BUAD 491 Research Methods in Business/Honors Credit 3**
The planning of research and the collection, analysis, and interpretation of data are important aspects of the course. A completed research project is required.
- BUAD 495 Strategic Management/Hybrid/Honors Credit 3**
The course is designed to integrate the knowledge and analytical skills acquired in the functional subject areas in Business Administration and related areas. The scope of the subject matter includes responsibilities of top management, together with the organizational processes for formulating and implementing organizational strategy. The course includes the integration of the functional areas of Economics, Accounting, Management, Marketing, Finance, and Law. This course uses case study methods and pedagogical techniques to deal with business problems and to formulate business policies and strategies. Prerequisite(s): Senior standing. To be taken during final semester of study. Capstone course culminating with the completion of a high quality written research project.
- BUAD 498 Independent Study in Management Credit 3**
The hours for this course are by arrangement with designated or individual faculty. Under the guidance of the faculty member, students conduct an intensive investigation of a topic within the field of management. A written proposal is required for approval. Projects typically include library research, interviews with operating and/or staff managers, and other requirements appropriate to the topic. One of the products of this project is a report. Prerequisites: BUAD 302 and consent of instructor.

BUSINESS EDUCATION

BUED 100 First Year Experience/ Business

Credit 1

The course is interdisciplinary in nature with emphasis on preparing graduates for productive personal and professional lives. Course content includes the following: orientation to The University; the role and responsibilities of the students; the student as a member of the University team; expectations of the faculty and staff; effective study techniques; time management, conflict management; stress management; test taking skills; and learning style assessment. Determination/perseverance, time on task and help-seeking are emphasized. The faculty facilitator relies heavily on guest lectures for selected topics.

BUED 101 Sophomore Professional Development

Credit .5

A continuation of BUED 100 with emphasis on strategic planning for life, including personal and career planning, decision making, values clarification, and occupational testing. Interpersonal skill development, business etiquette, dressing for success, and the need for continued intellectual development are topics that are stressed. Business and professional resource persons present selected topics. Prerequisite: Business major with Sophomore Standing.

BUED 102 Junior Professional Development

Credit .5

A continuation of BUED 101 with emphasis on strategic planning for life including personal and career planning, decision making, values clarification, and occupational testing. Interpersonal skill development etiquette, dressing for success and the need for continued intellectual development are stressed. Business and professional resource persons present selected topics. Prerequisite: Business major with Junior Standing.

BUED 212 Computer-Concepts/ Applications I/Hybrid/Online

Credit 3

The course introduces students to electronic information processing. Emphasis is placed on various computer concepts and applications. Contemporary computer software including System Software, and Application Software for word processing, spreadsheets and databases relevant to business and industry are taught. Not Open as Free or Program Elective.

BUED 333 Business Communications/Hybrid

Credit 3

This course prepares students for the future by enhancing writing, speaking, and delivery skills, as well as critical thinking and analytical skills that focus on how to organize reports and presentations, solve problems, and build arguments. Students will utilize technology in demonstrating presentation and organization skills associated with communicating in a business/management environment. Prerequisites: ENGL 102, ENGL 203, and Junior Standing.

BUED 414 Management/Online

Credit 3

A study of the various scientific and management principles applicable to office organization and control, office systems and procedures. Also included are office layout and equipment and personal supervision. Prerequisites: Senior Standing, BUAD 302

FINANCE

FINA 340 Financial Management/Hybrid/Honors

Credit 3

The course is designed to provide a basic understanding of principles and practices in the area of business finance as an integral part of the business enterprise. It deals with sources and allocation of funds, channels and procedures of financing in the capital market, internal and external financing and inter-firm relations, corporate finance and international capital markets, and public regulations by government and non-government agencies. Prerequisites: ACCT 202, ECON 201, and ECON 202.

FINA 341 Investment and Security Analysis/Hybrid/Honors

Credit 3

The course involves financial analysis of investment alternatives available to individual and institutional investors. Security analysis is employed in the allocation and evaluation of specific investments and in dealing with the problems of changing economic and financial conditions. Prerequisite: FINA 340.

FINA 440 Advanced Financial Management/Hybrid/Honors

Credit 3

The course is designed to develop analytical and decision-making abilities of students in relation to varied problems that normally confront financial management. Problem areas include financial planning and control of current operations and long-term capital commitments, income management, evaluation of income-producing property, and expansion through merger and consolidation. Prerequisite: FINA 340.

FINA 441 Insurance and Business Risks

Credit 3

The course deals with the study of risks and the methods of meeting them through the insurance mechanism. Basic principles and types of coverage for social business relations, and principles and types of coverage for social business risks are studied. Special emphasis is placed on business risks, coverage, and problems of risk management. Prerequisite: FINA 340

FINA 442 Principles of Real Estate/Hybrid Credit 3
The course is designed to study the principles, techniques and legal implications of acquiring and selling real estate. Areas covered include the factors influencing real values of residential, commercial and industrial properties, and relevant laws governing contracts, agency, brokerage, listings, agreements, deeds, titles, mortgage instruments, liens, landlord and tenant relationships, settlements, appraisal, real estate financing, real estate licensing laws, and ethics. Prerequisites: ACCT 202, ECON 201, ECON 202 or consent of instructor

FINA 443 Futures and Options Credit 3
The focus of this course is the understanding of options and futures. Theoretical issues as well as practical matters will be discussed. Emphasis will be on the valuation of derivatives and applications to the management of financial risk. Techniques for managing both individual and corporate investment risk will be examined. Speculation strategies will also be discussed. Prerequisite: FINA 341

FINA 444 Entrepreneurial and Small Firm Finance Credit 3
The focus of this course is the assessment of the financial needs and sources of funds for new firms based on forecasting cash flows. Topics for discussion will include the value of the endeavor to the entrepreneur, strategic issues such as the tradeoffs between alternative financing choices, and issues of financial flexibility and control. While the primary focus will be new ventures, discussion of the financing of existing small firms will be included. Prerequisite: FINA 340

FINA 445 Financial Institutions Credit 3
The focus of this course is the role of institutions in the flow of funds in the economy. The banking sector, from the Federal Reserve to local retail banks, will be thoroughly examined. The development and regulatory issues of financial markets will be discussed. The course will include the theoretical underpinnings of financial markets as well as practical issues relating to money. Prerequisites: ECON 201 and 202

FINA 446 Personal Finance Credit 3
The focus of this course is the management of an individual's money. Topics will include saving, investing, cash management, and credit. Discussion will focus on decision making and the acquisition of relevant information. Prerequisite: Junior Standing.

FINA 490 Senior Seminar in Finance Credit 3
This course provides the opportunity for advanced study of topics in finance; offerings to be announced prior to registration. Will satisfy elective requirement in Finance Concentration program. Prerequisite: Senior standing.

FINA 491 Research Methods in Finance/Honors Credit 3
The focus of this course is the planning and execution of a research project, including the collection, analysis and interpretation of data on a topic in Finance. A completed research report is required. Prerequisite: Senior standing.

FINA 498 Independent Study in Finance Credit 3
The hours for this course are by arrangement with designated or individual faculty. Under the guidance of the faculty member, students conduct an intensive investigation of a topic within the field of finance. A written proposal is required for approval. Projects typically include library research, interviews with operating and/or staff managers, and other requirements appropriate to the topic. One of the products of this project is a report. Prerequisites: BUAD 302 and consent of instructor.

MARKETING

MKTG 308 Principles of Marketing/Hybrid Credit 3
The focus is on introducing the nature and fundamentals of marketing activities in the modern industrial economy. This course deals with the analysis of the socio-economic and psychological factors, influencing consumer behavior, market measurement and forecasting methods, development of marketing programs in the areas of product-line, price, promotion and channels of distribution, procedures for planning and controlling marketing operations and the legal aspects of marketing. Prerequisites: ECON 201, ECON 202, ACCT 202 and Junior standing. (Fashion Merchandising Majors only. ECON 202 and permission of the respective Department Chairs).

MKTG 312 Sales Management Credit 3
The course involves a study of the techniques and policies in the administration of the sales organization with respect to the market strategies. Managerial functions, such as selecting, training, compensating, and supervising field sales personnel, are also dealt with. The course also includes planning, implementing, and coordinating the sales program with the total marketing effort of the firm. Prerequisite: MKTG 308.

- MKTG 314 Retail Management Credit 3**
 The course involves a study of retailing as a marketing institution from the standpoint of management. Topics covered include the store location, layout and facilities, policy formulation in the areas of buying, merchandising, pricing, inventory planning and controlling, sales promotion, customer service, and general management problems. Prerequisite: MKTG 308.
- MKTG 315 E-Commerce Credit 3**
 This course is designed to familiarize students with the emergence and importance of electronic commerce. The course examines the exchange of business information, products, services and payments over the Internet and World Wide Web. Students will understand the field of electronic commerce and its basic vocabulary, as well as learn the skills to develop electronic commerce applications (on the web). Prerequisite: MKTG 308.
- MKTG 401 Advertising Management Credit 3**
 Emphasis is on an analysis of advertising problems from the points of view of the general administrator and marketing manager. The major topics covered are determining the role of advertising in an organization's total set of strategies, coordinating and integrating advertising with the total marketing effort, and developing of appropriate copy, media selection, client-agency relationships, and available techniques to measure the effectiveness of advertising expenditures. Prerequisite: MKTG 308
- MKTG 404 Consumer Behavior and Theory Credit 3**
 This course examines motivation, cognition, and learning of preferences and tastes from the interdisciplinary perspective of the social sciences. Dynamics of consumer demand and behavior are emphasized. Prerequisite: MKTG 308.
- MKTG 406 Purchasing Management Credit 3**
 The course involves a study of the problems in industrial, institutional, and government purchasing, such as the purchasing of raw material, supplies, and equipment. Procedures for procurement, value analysis, quality control, and inventory control are covered. Factors in determining suitability of product, preparation of specifications, and legal aspects are also dealt with. Prerequisite: MKTG 308.
- MKTG 409 Marketing Research Credit 3**
 The focus is on the process of acquiring, classifying and interpreting primary and secondary marketing data at the macro and micro level needed for profitable marketing decisions. Skills in evaluating the appropriateness of inductive, deductive, survey, observational, and experimental methodologies are developed. Recent developments in the systematic recording and use of internal and external data needed for marketing decisions are evaluated. The course focuses on integrating problem formulation, research design, questionnaire construction, sampling, data collection and data analysis to yield valuable marketing information. The course also examines the proper use of statistical applications such as time series analysis as well as qualitative methods, with an emphasis on the interpretation and use of results. Prerequisite: MKTG 308
- MKTG410 Marketing Strategy and Policy Credit 3**
 This course emphasizes the managerial aspects of marketing and distribution problems. The course specifically deals with the factors affecting consumer demand, methods of satisfying it, the structure of the market, marketing methods, and the problems of various agencies, competitive practices, and management of the selling activities of a business, including distribution policies, pricing, and organizing and planning of market operations. Prerequisite: MKTG 308.
- MKTG 421 International Marketing Credit 3**
 The focus is on company survival and growth in developed and emerging markets. This course examines the challenge of entering and operating effectively in foreign markets. Decisions must be made regarding international marketing objectives, strategies and policies, foreign market selection and entry, adaptation and customization of products, distribution channel design and communication programs to fit each foreign market. International marketing organization, international marketing research, planning and control are discussed. Student projects will explore and demonstrate understanding of cultural and language issues through readings, case discussion, class presentations and a term project. Techniques for communicating and marketing products and services in a specific country that accommodate cultural differences are emphasized. Prerequisite: MKTG 308.
- MKTG 498 Independent Study in Marketing Credit 3**
 The hours for this course are by arrangement with designated or individual faculty. Under the guidance of the faculty member, students conduct an intensive investigation of a topic within the field of marketing. A written proposal is required for approval. Projects typically include library research, interviews with operating and/or staff managers, and other requirements appropriate to the topic. One of the products of this project is a report. Prerequisites: BUAD 302 and consent of instructor.

DIRECTORY OF FACULTY

- Ali, Mohammad** **Assistant Professor**
B.A., University of Dhaka, Dhaka, Bangladesh; M.A., University of Dhaka; M.B.A., University of Dhaka; M.S., Ph.D.,
University of Florida
- Brown, Kate** **Associate Professor & Chair**
B.A., M.B.A., Ph.D. University of Connecticut
- Buzzetto- More, Nicole** **Associate Professor**
B.A., Marist College; M.S., College of New Rochelle; Ed.M., Columbia University; Ed.D., Columbia University
- Das, Monisha** **Associate Professor**
B.A., University of Calcutta, India; M.A., University of Bombay, India; M.B.A., J. Bajaj Institute of Management Studies; Ph.D.,
Golden State University
- Habib, Nagy** **Associate Professor**
B.A., Higher Commercial Institute, Egypt; M.A., New York University; Ph.D., Indiana University, Bloomington
- Hummer, William** **Lecturer**
B.G.S., University of Nebraska at Omaha; M.B.A., University of Montana; M.S., University of Delaware
- Lee, Kyung Joo** **Associate Professor**
B.B.A., Korea University, Seoul, Korea; M.B.A., Indiana University; Ph.D., University of Arizona
- Li, Diane** **Associate Professor**
B.S., Shandong University; M.S., Ph.D., Old Dominion University
- Mitchell, Bryant** **Associate Professor**
B.S., University of Maryland Eastern Shore; M.B.A., Columbia University; Ph.D., Clemson University
- Moore, John** **Professor**
B.S., Michigan State University; M.B.A., James Madison University; Ph.D., Virginia Commonwealth University
- Panda, Dandeson** **Associate Professor**
B.S., University of the District of Columbia; M.B.A., Atlanta University; Ph.D., Howard University
- Sampson, Allen** **Lecturer**
B.S., Morgan State University; M.B.A., Wharton Graduate School of Business, University of Pennsylvania
- Sharma, Dinesh** **Professor**
B.S., Maharshi Dayanand University; M.S., Meerut University; M.S., University of North Carolina; Ph.D., Chaudhary Charan
Singh University

DEPARTMENT OF ENGINEERING AND AVIATION SCIENCES

www.umes.edu/SBT

Ali Eydgahi, Chairperson

MISSION

The mission of the Department of Engineering and Aviation Sciences is to provide quality professional degree programs, to prepare students for employment in their chosen field, to establish close partnerships with and facilitate technology transfers to industry and government, to prepare students for advanced studies, to contribute to economic development of the State, and to provide related service to the campus community and the community at large.

OBJECTIVES

The objectives of the programs offered in the Department of Engineering and Aviation Sciences are as to:

1. Provide students with academic curricula that develop a strong background in Engineering and Aviation Sciences concentration areas.
2. Prepare students for life long learning.
3. Expose students to social, historical, and ethical issues involving Engineering and Aviation Sciences.
4. Promote interaction between the university and the community through departmental activities by faculty and students.
5. Encourage, through recruitment, outreach, and intervention programs, minorities and women to pursue careers in the Engineering and Aviation Sciences programs.
6. Provide students in the department opportunities for scholarship, work-study arrangements, summer employment, and jobs.

DEGREES OFFERED

Bachelor of Science - Engineering

With Specializations in:

- Aerospace
- Computer
- Electrical
- Mechanical

Bachelor of Science - Aviation Sciences

With concentration in:

- Professional Pilot
- Aviation Electronics
- Aviation Management
- Aviation Software

GENERAL PROGRAM REQUIREMENTS

The admission of students to the Engineering program is based upon SAT scores, high school or college grades, and preparation in mathematics and science in high school or college. The course sequence and prerequisites for the Engineering program require that the student place into MATH 112, Calculus I, in order to complete the program in eight semesters.

Students admitted to the university who do not place appropriately in mathematics will be permitted to enroll in the Engineering or Aviation Sciences programs. These students will require additional preparatory courses at UMES prior to starting the core courses in the Engineering program, and this may extend their program by one or more semesters. Successful completion of the Bridge, Jump Start, PACE, or similar programs during the summer prior to students' Freshman year is highly recommended.

Collaborative Agreements with Other Institutions of Higher Learning

UMES maintains collaborative agreements with various community colleges in the state of Maryland to provide students the opportunity to complete a bachelor's degree in Engineering or Aviation Sciences programs by combining upper level courses taken through UMES with their lower level courses taken at the community college. In all cases, students desiring to earn a UMES Engineering or Aviation Sciences degree must complete all UMES degree requirements. Students normally enter the collaborative program upon completion of their associate degree, but may elect to enroll concurrently in both programs, taking UMES courses and community college courses simultaneously. In some cases, credit towards the community college degree may be granted for UMES courses; for details, the student's community college must be consulted. Attainment of an associate degree is not required for award of a UMES Engineering or Aviation Sciences degree if all UMES degree requirements are met. Transfer credit toward a UMES degree for courses taken at a community college is granted in accordance with the MHEC regulations. Collaborative agreement students who wish to enroll in the UMES program must apply for admission to UMES as transfer students using the procedures specified elsewhere in this catalog. Students accepted in the program will be assigned a UMES advisor for planning their degree completion.

CAREER OPPORTUNITIES

Engineering is a profession in which fundamentals of mathematics and natural sciences are applied to develop and create techniques and products for the benefits of humanity. Aerospace engineers design and develop various types of imaginable flying machines such as military fighter jets or unmanned aerial vehicles. Computer engineers deal with all aspects of the design, construction, and operation of computer systems and their hardware and software. Electrical engineers are involved in much of the technology in computers, communication systems, power systems, satellites, microelectronics, and integrated circuits. Mechanical engineers design and develop all types of machinery such as artificial organs, robotics, manufacturing, automotive, or air conditioning.

COMMON REQUIRED

ENGE 100	ENGE 370	MATH 211	PHYS 262
ENGE 150	ENGE 380	MATH 212	PHYS 263
ENGE 170	ENGE 382	MATH 321	PHYS 264
ENGE 240	ENGE 383		PHYS 265
ENGE 241	ENGE 476		
ENGE 250	ENGE 477		
ENGE 251			
ENGE 260			
ENGE 261			
ENGE 270			

REQUIRED MAJOR COURSES¹

Aerospace Specialization (ENAE)

ENAE 342	ENAE 412	ENAE 462	ENAE 472
ENAE 345	ENAE 420	ENAE 464	ENAE 475
ENAE 389	ENAE 430	ENAE 465	
	ENAE 440	ENAE 467	
	ENAE 442	ENAE 472	

Computer Specialization (ENCE)

ENCE 350	ENCE 452	ENCE 460	ENCE 742
ENCE 352	ENCE 454	ENCE 462	ENCE 475
ENCE 387	ENCE 456	ENCE 464	
	ENCE 458	ENCE 468	
		ENCE 469	

¹Students must take five courses and one lab from one of the areas of specialization.

Electrical Specialization (ENEE)¹

ENEE 330	ENEE 443	ENEE 460	ENEE 472
ENEE 348	ENEE 444	ENEE 462	ENEE 475
ENEE 385		ENEE 464	
ENEE 387		ENEE 465	
		ENEE 468	
		ENEE 469	

Mechanical Specialization (ENME)¹

ENME 342	ENME 422	ENME 462	ENME 472
ENME 345	ENME 425	ENME464	ENME 475
ENME 346	ENME 430	ENME 468	
ENME 422	ENME 440	ENME 469	
ENME 425	ENME 442		

¹Students must take five courses and one lab from one of the areas of specialization.

CURRICULUM GUIDE FOR ENGINEERING

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CHEM 111	3	ENGE 170	3
CHEM 113	1	ENGL 102	3
ENGE 100	1	MATH 211	4
ENGE 150	3	PHYS 161	3
ENGL 101	3	PHYS 163	<u>1</u>
MATH 112	<u>4</u>		14
	15		

SOPHMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGE 250	3	ENGE 240	3
ENGE 251	1	ENGE 241	1
ENGE 260	3	ENGE 261	3
ENGL 203	3	ENGE 270	3
MATH 321	4	MATH 212	4
PHYS 262	3	PHYS 263	3
PHYS 264	<u>1</u>	PHYS 265	<u>1</u>
	18		18

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGE 340	3	ENGE 320	3
ENGE 341	1	ENGE 382	3
ENGE 362	3	ENGE 383	1
ENGE 370	3	GEN ED CURR AREA	3
ENGE 380	3	Specialization Elective	3
ENGL 305	<u>3</u>	Specialization Elective	<u>3</u>
	16		16

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGE 476	2	ENGE 477	2
GEN ED CURR AREA	3	GEN ED CURR AREA	3
GEN ED CURR AREA	3	GEN ED CURR AREA	3
Specialization Elective	3	Specialization Elective	3
Specialization Lab	<u>2</u>	Specialization Elective	<u>3</u>
	13		14

Total Credit Hours: 124

AVIATION SCIENCES

GENERAL PROGRAM REQUIREMENTS

The Aviation Sciences program does not have any specific admissions requirements for general admission to UMES, although this is subject to change. The course sequence and prerequisites for Aviation Sciences program require that the student place into MATH 109, College Algebra, or higher (except for Aviation Electronics, which requires placement into MATH 112, Calculus I) in order to complete the program in eight semesters.

Students admitted to the university who do not place appropriately in mathematics will be permitted to enroll in the Aviation Sciences programs. These students will require additional preparatory courses at UMES prior to starting the core courses in Engineering or Aviation Sciences programs, and this may extend their program by one or more semesters. Successful completion of the Bridge, Jump Start, PACE, or similar programs during the summer prior to students' Freshman year is highly recommended.

DEPARTMENTAL REQUIREMENTS

The Aviation Sciences program consists of 120 total credit hours. Students complete 34 credit hours of Aviation core courses and choose one of four concentrations. The concentration areas are Professional Pilot, Aviation Electronics, Aviation Management, Aviation Software, and each consists of 33 credit hours. The curricula include 41 credit hours of general education courses, 6 credit hours of support courses, and 6 hours of Aviation elective courses.

CAREER OPPORTUNITIES

Aviation Sciences is the study of the technical and professional skills and disciplines necessary for the operation and management of aviation enterprises including piloting, business management /administration, and supporting technical areas such as development of aviation specific electronic and software systems. Career opportunities include Professional Pilots, Air Traffic Controllers, Airport Managers, Airline Managers, General Aviation Operation Managers, and Navigation/Communication/Flight Control System Designers and Programmers

Flight Training

The flight training course syllabus (certified by the Federal Aviation Administration under Part 61 and 141 of the Federal Air Regulations) is designed to prepare students for their FAA pilot and flight instructor certificates in the most effective and efficient manner possible. UMES' ground instruction provides a broad base knowledge and experience that are needed for good decision-making of pilots. Flight training is accepted from FAA Part 61 & 141-approved flight schools operating under memorandum of understanding (MOU) with UMES. Training is monitored by appropriately-rated UMES aviation faculty who also conduct periodic stage checks in flight as part of the students' flight training courses.

Flight Training Expenses

Because the per-student cost of flight training is so much greater than the costs of other University of Maryland Eastern Shore (UMES) educational activities, this cost is not included in the UMES tuition. Fees paid for flight training are considered qualified educational expenses and will be paid directly to the flight training contractor.

Students interested in financial aid to cover the cost of flight training should meet with their departmental advisor and the financial aid office to discuss the various options available. Students enrolled in flight training courses may request that their student budget be increased so that they may be eligible for loans or scholarships above and beyond the UMES tuition and fees. Any additional financial aid will be refunded to the student (or in the case of parental loans, to the parent) and can then be applied to flight training expenses through the flight training provider.

Training Aids

The Aviation program training aids include a complete selection of visual aids, computer access, and the latest software support for pilots, such as PC-based flight simulation programs and FAA written knowledge test preparation packages. The department has an FAA-certified Frasca 142 flight training system and a Precision Flight Controls CAT-V MFD advanced aviation training system on campus for instrument and procedures instruction at all levels, from basic flight to advanced multi-engine operations.

Simulator Use

The FAA allows a portion of student's aeronautical training to be conducted with the University's Flight Training Systems and simulators. This provides a significant cost savings over the use of an aircraft for the same experience. Additionally, solo practice in the simulator is very useful. As with other laboratory facilities at UMES, it is necessary to charge for the use of the flight simulator to cover the costs of operation and maintenance. Students enrolled in flight training practicum courses will be assessed a lab fee for simulator use. The lab fee is based on the projected number of hours students will be able to complete in the flight simulator toward completion of flight training courses. The lab fee provides for unlimited usage of the flight simulator. The lab fee for the 2008-2009 academic year is \$250 and will be charged for enrollment in the following courses: AVSC 142, AVSC 143, AVSC 153, AVSC 162, AVSC 163, AVSC 252, AVSC 253, AVSC 254, AVSC 452, AVSC 462, AVSC 472.

Medical Examination

To qualify for flight training, a student must be enrolled in a degree program at UMES or other member school of the University System of Maryland and pass an appropriate FAA Aviation Medical Examination. An Aviation Medical Examination is a physical exam given by an FAA-approved physician known as an Aviation Medical Examiner (AME). It is important that students embarking on a career as a Professional Pilot know before they proceed whether they have a medical condition which would prevent employment as a pilot. Therefore, students intending to enroll in the Professional Pilot concentration are encouraged to obtain an FAA Second Class medical (the level required to act as a pilot for compensation or hire) and Student Pilot certificate before arriving on campus. AME's are listed on the internet at www.faa.gov/pilots/amelocator. For further assistance, contact the UMES Aviation Sciences program office. AME's are available in the UMES area to provide examinations to those who do not have one when they arrive. Fees for this examination are approximately \$50 - \$75, and for students under age 40 with no abnormal conditions, the examination is good for three years of training.

Aviation Security Requirements

Federal regulations (49 CFR Part 1552) enacted in 2004 require all flight training students to either document US citizenship or complete a Federal security background check. Students may participate in non-flight programs without complying with these regulations, but those in flight programs must comply before their first flight. The background checks apply to all non-US citizens, including nationals of other countries with permanent resident status in the US. These checks include fingerprinting, photographing, and submitting personal data, copies of passports, visas, and other documents to the Transportation Security Administration (TSA). US citizens must present either a current valid US passport or an original or raised-seal official copy of their certificate of birth or naturalization. Non-US citizen students must make application to the US Transportation Security Administration and pay a fee (currently \$130.00) to TSA. This must be accomplished before starting flight training at UMES and again before starting instrument training and multiengine training although the fee will only be charged one time. All actions necessary to accomplish this check may be completed at the UMES campus and/or at the location of the flight training provider when the student arrives for training. Training may begin as soon as the application is completed, but may be suspended if TSA rejects the student or requires further checks. UMES is legally obligated to deny training to any student rejected by TSA. As the TSA Flight Student security program is not under UMES' control, UMES cannot accept any responsibility for it nor can UMES make any promise that any student will pass the checks. More information on the TSA Flight Student security program may be found on the Internet at <https://www.flightschoolcandidates.gov/>.

Credit for Prior Flight Training

Students who arrive with FAA pilot and/or flight instructor certificates and ratings will be granted academic credit for completion of the courses for the certificates and ratings held upon satisfactory demonstration of proficiency to the University's standards (AABI Criterion 2.9). This may be accomplished by taking standardized test in university simulator lab using FAA Practical Test Standards, or via departmental oral exam and interview.

The following Federal Aviation Administration (FAA) certifications will be eligible for academic credit:

Private Pilot Certification

AVSC 141 AVSC 112 AVSC 142

Private Pilot with Instrument Rating¹

AVSC 161 AVSC 162

Commercial Certificate with Instrument Rating²

AVSC 251 AVSC 252 AVSC 253
AVSC 254

¹Students must select courses listed in Private Pilot Certification plus courses listed in Private Pilot with Instrument Rating.

²Students must select courses listed in Private Pilot Certification, Private Pilot with Instrument Rating plus Commercial Certificate with Instrument Rating.

Since the holder of a Commercial Pilot Certificate has previously met the requirements of the Private Pilot Certification and Instrument Rating, applicants will receive credit for those foundation courses after showing proof that the applicant holds a Commercial Pilot's License.

Certified Flight Instructor Certificate

AVSC 451 AVSC 452

Certified Flight Instructor – Instrument¹

AVSC 461 AVSC 462

Multi-Engine Rating

AVSC 472

COMMON REQUIRED MAJOR

AVSC 112	AVSC 305	BUED 212 ² or	MATH 211 ³
AVSC 131	AVSC 331	ENGE 170 ⁴	
AVSC 151	AVSC 421	BUAD 252	
AVSC 201	AVSC 441		
AVSC 202	AVSC 490		
AVSC 231			
AVSC 241			

REQUIRED MAJOR COURSES

Professional Pilot Concentration

AVSC 141	AVSC 251	AVSC 302	AVSC 451
AVSC 143	AVSC 252	AVSC 311	AVSC 452 ⁵ or
AVSC 153	AVSC 253	AVSC 342	AVSC 472
AVSC 161	AVSC 254	AVSC 380	
AVSC 163			

Aviation Management Concentration

AVSC 132	AVSC 431	ACCT 201	ECON 201
AVSC 232	AVSC 432	ACCT 202	ECON 202
AVSC 261	AVSC 442		
AVSC 355			

Aviation Electronics Concentration

AVSC 302	EDTE 211	ETEE 303	ETEE 421
AVSC 361	EDTE 212	ETEE 335	ETEE 425
		ETEE 355	ETEE 485
			ETEE 486

Aviation Software Concentration

AVSC 302	CSDP 220	CSDP 301	CSDP 401
	CSDP 221	CSDP 305	
	CSDP 222	CSDP 321	
	CSDP 250	CSDP 350	

¹Courses listed in Certified Flight Instructor Certification plus courses listed in Certified Flight Instructor - Instrument.

²Student must select either BUED 212 or ENGE 170.

³Students majoring in Aviation Electronics and Aviation Software must select MATH 211.

⁴Student must select either ENGE 170 or BUED 212.

⁵Student must select from either AVSC 452 or AVSC 472.

CURRICULUM GUIDE FOR AVIATION SCIENCES

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
AVSC 100	1	AVSC 131	3
AVSC 112	3	AVSC 152	3
ENGL 101	3	BUED 212 or	
MATH ¹	3	ENGE 170	3
Concentration Course	<u>3</u>	ENGL 102	3
	13	Concentration Course	<u>3</u>
			15

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
AVSC 201	3	AVSC 202	3
AVSC 241	3	AVSC 231	3
Concentration Course	3	MATH ¹	3
ENGL 203	3	SOCI 101	3
Science Course with Lab	<u>4</u>	SOCI ²	<u>3</u>
	16		15

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
AVSC 305	1	Concentration Course	3
AVSC 331	3	Concentration Course	3
Concentration Course	3	ENGL 305 or	
Concentration Course	3	ENGL 310	3
GEN ED CURR AREA	3	GEN ED CURR AREA	3
PSYC 200	<u>3</u>	Science Course	<u>3</u>
	16		15

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
AVSC Elective	3	AVSC Elective	3
AVSC 421 or		AVSC 441	3
PSYC ³ or		AVSC 490	3
SOCI ³	3	Concentration Course	3
Concentration Course	3	Concentration Course	<u>3</u>
Concentration Course	3		15
EXSC 111 ⁴	<u>3</u>		
	15		

Total Credit Hours: 120

¹Student must select supportive MATH course required by Concentration.

²Student must select a course in the Social Sciences area.

³Student must select either PSYC or SOCI Upper Level Advanced Behavior course.

⁴EXSC 111 cannot be repeated for credit.

COURSE DESCRIPTIONS FOR AVIATION SCIENCES IN AVIATION SCIENCES

AVSC 100 First Year Orientation with Aviation

Credit 1

This course offers an overview of the aviation industry and an overview of college life. This course is an orientation for incoming freshmen and covers stress and time management and life skills. In addition, the course explores ethics, educational requirements, FAA requirements, scholarship availability, career opportunities, and the need to be trained.

AVSC 112 Aviation Fundamentals

Credit 3

This course provides a basic overview of aviation, including Fundamentals of Flight, Flight Operations, Aviation Weather, Performance and Navigation, and Integrating Pilot Knowledge and Skills. Critical thinking is stressed. Aviation Science students in the Professional Pilot Concentration should enroll concurrently in AVSC 141.

AVSC 131 Air Transportation

Credit 3

This course covers the history, development, and present status of air transportation, including: government legislation, regulations, the FAA and CAB organizations and functions; classification of air carriers; facilities and airline operations; future air transportation requirements; economics and social implications.

AVSC 132 Introduction to Aviation Business

Credit 3

This course is an introductory course to provide an overview of the structure of business, management and organization, human resources, financial management, production, labor-management relations, marketing, accounting, and insurance as well as the global dimensions of business and social responsibilities of business as these topics relate to aviation business. Also included is an exploration of the management of FBOs and other general aviation enterprises. Prerequisite: AVSC 131.

AVSC 141 Private Pilot Ground Lab

Credit 1

This course provides ground and simulator instruction to meet FAA private pilot aeronautical knowledge requirements. Subjects include all applicable Federal Aviation Regulations (FARs), visual flight rules (VFR) navigation, aviation weather, aircraft operations, safety considerations, etc. Training includes instruction necessary to complete the airmen knowledge requirements of the Private Pilot Airplane airmen knowledge test (FAA written exam). This course is designed for students in the Professional Pilot Concentration and should be taken concurrently with AVSC 112 Aviation Fundamentals. Prerequisite: MATH 101 with "C" or better, placement into MATH 109, or permission of instructor. Co-requisite: AVSC 112

AVSC 142 Private Pilot Flight

Credit 3

This course includes actual flight and simulator time to meet private pilot requirements. Topics include all FAA required maneuvers such as: aircraft pre-flight operations, airport and traffic pattern operations, flight maneuvering, flight at slow airspeeds, normal and crosswind takeoffs and landings, control and maneuvering of the aircraft solely by reference to flight instruments, cross-country navigation, maximum performance takeoffs and landings, night flying and emergency operations. Upon successful completion of this course the student will have the aeronautical experience and skill requirements for, and will have obtained, an FAA Private Pilot Airplane Single Engine Land certificate. This course, completed together with AVSC 162, is the equivalent of AVSC 143, 153, and 163. Lab fee \$250. Co-requisite: AVSC 141.

AVSC 143 Primary Flight Training I

Credit 2

This course includes actual flight and simulator time to meet the requirements of the first two stages of the FAA 141 Private Pilot Flight syllabus. Topics include the FAA required maneuvers such as: aircraft pre-flight operations, airport and traffic pattern operations, flight maneuvering, flight at slow airspeeds, normal and crosswind takeoffs and landings, control and maneuvering of the aircraft solely by reference to flight instruments, cross-country navigation training, maximum performance takeoffs and landings, night flying and emergency operations. Upon completion of this course, the student will have passed the Private Pilot Stage I and Stage II stage checks. Lab fee \$250. Co-requisite: AVSC 141.

AVSC 152 Meteorology & Environmental Issues

Credit 3

This course covers the following topics: the atmosphere, atmospheric energy and temperature, pressure and density altitude, wind, atmospheric circulation systems, air-masses, fronts, vertical motion and stability, atmospheric moisture, tornadoes, thunderstorms, and local winds. Hazards associated with weather, such as wind shear, turbulence, icing, instrument meteorological conditions (IMC), etc. are also covered, as are applications of weather knowledge, including aviation weather resources and weather evaluation for flight. Air and noise pollution are introduced. Pre/Co-requisite: AVSC 112.

AVSC 153 Primary Flight Training II Credit 2
This course includes actual flight and simulator time to meet the requirements of the final stage of FAA Part 141 Private Pilot flight syllabus and the first stage of the FAA Part 141 Instrument Rating Flight syllabus. Topics include the FAA required maneuvers such as: solo cross-country navigation, and basic radio navigation. Upon successful completion of this, the student will have passed the Private Pilot Stage II stage check, the Private Pilot end of course check, the FAA Private Pilot Airplane Single Engine Land practical test, and the Instrument Rating Stage I stage check. Lab fee \$250. Prerequisites: AVSC 141, AVSC 143. Co-requisite: AVSC 161.

AVSC 161 Instrument Rating Ground Credit 3
This course provides ground and simulator training to meet FAA's instrument pilot aeronautical knowledge requirements. Subjects include Federal Aviation Regulations (FAR's) for instrument flight; IFR navigation; aviation weather; function, use, and limitations of flight instruments; etc. Training includes instruction necessary to complete the airmen knowledge requirements for the Instrument Airplane airmen knowledge test (written exam). Prerequisite: AVSC 141. Co-requisite: AVSC 152.

AVSC 162 Instrument Rating Flight Credit 3
This course provides flight and simulator training for instrument pilot operations necessary to operate an airplane safely and accurately under instrument flight rules (IFR) within the National Airspace System. Upon successful completion of this course the student will have demonstrated both the aeronautical knowledge and skill requirements for, and will have obtained, an FAA Instrument Airplane Rating. This course, completed together with AVSC 142, is the equivalent of AVSC 143, 153, and 163. Lab fee \$250. Prerequisites: AVSC 141 and AVSC 142. Co-requisites: AVSC 161 and 152.

AVSC 163 Primary Flight Training III Credit 2
This course provides flight and simulator training for instrument pilot operations which is necessary to safely and accurately perform standard instrument approaches to operate an airplane under Instrument Flight Rules (IFR) within the National Airspace System. Upon successful completion of this course, the student will have passed the Instrument Rating Stage III and III stage checks, the Instrument Rating end-of-course check, and the FAA Instrument Airplane Rating practical test. Lab fee \$250. Prerequisites: AVSC 153, AVSC 161, and AVSC 152.

AVSC 188 Flight Training Credit 0
This course provides students with flight training activities. Students in flight training shall sign up for three sections of this course each semester to ensure three half days of flight training per week. Prerequisite: Enrollment in UMES Flight Training program.

AVSC 201 The National Airspace System Credit 3
Students review federal aviation regulations (FAR), the National Airspace System (NAS) structure, equipment, and cloud clearance requirements for the different airspace classifications including special use airspace (SUA). Students study the different air traffic control (ATC) facilities, terminal and en-route, to learn the various controller positions and functions. Students use the ATC simulator to demonstrate confidence in their ability to safely control at least 10 aircraft in a high density terminal environment. Students plan a flight and fly their flight plan on the flight simulator, describing the airspace and communications requirements as they proceed. Future plans for the NAS are discussed. Prerequisite: AVSC 112.

AVSC 202 Air Traffic Control Credit 3
This course briefly reviews the history of the US Air Traffic Control (ATC) system. Students learn current ATC procedures and phraseology by flying and controlling air traffic in high density terminal environments. Students learn the ATC facilities and required operational positions (workstations). Teamwork, between pilots and controller, to move aircraft safely through today's ATC system is stressed. Prerequisite: AVSC 201.

AVSC 226 Air Traffic Control Operations Credit 3
This course is provides the requisite aeronautical knowledge to successfully pass the Federal Aviation Administration Air Traffic Selection Training Aptitude Test Written Exam. Students will cover topics including the aircraft separation, NOTAMS, radar, FAA Orders, LOAs, regulations, navigation, publications, IFR structure, weather, PIREPS, communications, ATC clearances and strip marking as it relates to Air Traffic Controller duties. Students will practice hands on air traffic control procedures utilizing desk-top and/or an ATC simulator. Prerequisites: AVSC 202. Lab fee: \$250.

AVSC 231 Airline Management I Credit 3
This course studies the operational requirements of Part 135 and 121 carriers in the National Airspace System. Discussions include value analysis of different aircraft types for various users, cost-effective operations, marketing considerations, facilities, equipment suitability, aircraft acquisition and modernization. Typical subjects include aviation regulations, records and documents associated with air carrier operations. Prerequisite: AVSC 131 or ECON 201.

AVSC 232 Airport Management Credit 3
The student is provided knowledge of airport administration, design, and planning. Airport operations and practices discussed include security, fire protection, facility maintenance, environment, public affairs, political, social and economical issues. Prerequisites: AVSC 231 or permission of instructor.

AVSC 241 Aviation Safety Credit 3
Aviation Safety is designed to promote sound practice, and an understanding of the safety-net for commercial and general aviation. This course provides the student with a foundation and framework in aviation and transportation safety. The course objectives are: to gain an understanding of the knowledge, skills, and abilities required in aviation; to enhance the student's safety awareness; to familiarize the student with hazards associated with the aviation environment; and to impart to the student a broad understanding of the United States' safety system. Some typical areas are: safety data, investigations, aviation maintenance, collision avoidance, Cockpit Resource Management (CRM), physiology, situation awareness, and human factors. Prerequisite: AVSC 112.

AVSC 251 Commercial Pilot Ground Credit 3
In this course, ground instruction to meet FAA Commercial Pilot aeronautical Knowledge requirements is provided. Subjects include all FAR's applicable to commercial pilot privileges, limitations, and flight operations; airplane performance, aerodynamics, performance prediction, weight and balance control; advanced airplane systems, including fuel injection, high performance power plants, environmental systems, complex aircraft systems, and commercial flight maneuvers. Training includes instruction necessary to complete the airmen knowledge requirements for the (FAA written exam) Commercial Pilot Airplane airmen knowledge test (written exam). Prerequisites: AVSC 152, AVSC 153, AVSC 161 and AVSC 253. Co-requisites: AVSC 201 and 241.

AVSC 252 Commercial Pilot Flight I Credit 2
This course is actual flight and simulator time for private pilots to learn commercial pilot operations. Emphasis is on advanced cross-country and night operations. Upon successful of this course the student will have mastered the VFR cross-country and night aeronautical knowledge and skill requirements for an FAA Commercial Pilot Certificate. Lab fee \$250. Prerequisite: AVSC162. Co-requisite: AVSC 251.

AVSC 253 Commercial Pilot Flight II Credit 2
This course is actual flight and simulator time for private pilots to learn commercial pilot operations. Emphasis is placed on more advanced aerodynamics, aircraft performance, and practical experience to pilot a complex aircraft. Upon successful completion of this course the student will have mastered the complex aircraft aeronautical knowledge and skill requirements for an FAA Commercial Pilot Certificate. Lab fee \$250. Prerequisite: AVSC 251 and AVSC 252.

AVSC 254 Commercial Pilot Flight III Credit 2
This course is actual flight and simulator time for private pilots to learn commercial pilot operations. Emphasis is on commercial flight maneuvers and practical experience to master the aircraft. Upon completion of this course, the student will have mastered the complex aircraft aeronautical knowledge and skill requirements for an FAA Commercial Pilot Certificate. Lab fee \$250. Prerequisite: AVSC 251, AVSC 252 and AVSC 253.

AVSC 261 Aviation Organization and Leadership Credit 3
This course is a study of the various organizational theories as they apply to the aviation industry. The course will cover the topics of human resources management, labor relations, classical and rational theories of organizational structure and management, the evolution of business organization and the economics of organizations. Prerequisites: AVSC 231.

AVSC 301 Aircraft Dispatcher Credit 3
This is a preparatory course for the FAA Aircraft Dispatcher written examinations. The course is a review of the aviation core concepts and technology as they apply to the Aircraft Dispatcher. Prerequisites: AVSC 152, AVSC 201, AVSC 202, AVSC 241, and either AVSC 251 or AVSC 112 and permission of the instructor.

AVSC 302 Advanced Aircraft Systems Credit 3
This course covers all aircraft systems, their theory of design, operations, trouble shooting and maintenance standards. Study includes propulsion systems, associated instruments, auxiliary systems, propeller and control; aircraft structure, aircraft electrical and lighting, hydraulic and pneumatic systems, avionics, brakes and tires, deicing, flight instrumentation, navigation systems, and ELT. This course covers an in-depth understanding of a typical turboprop commuter-type aircraft as well as an overview of the design and development process of commercial aircraft. Prerequisite: AVSC112 and AVSC 251 or permission of instructor.

- AVSC 305 Aviation Career Preparation Credit 1**
This course is designed to prepare Aviation Science students for entry into the aviation career field. Topics and assignments will include resume writing, course portfolio creation, and development of interview skills through the use of mock interviews. This course will prepare students to enter an Internship and complete AVSC 380. Prerequisite: Junior Standing
- AVSC 311 Aerodynamics & Aircraft Performance Credit 3**
Students in this course study the fundamentals and more advanced theory of flight, the standard atmosphere, and subsonic and supersonic aerodynamics. Topics include airfoils, the complete aircraft, various aerodynamic shapes, wind tunnels, elements of airplane performances, principles of stability and control, and propeller and jet propulsion. Prerequisite: AVSC 112, MATH 112 or BUAD 252, PHYS 121 or PHYS 161 or PHYS 181, and Junior standing.
- AVSC 312 Advanced Aerodynamics and Performance of Flight Vehicles Credit 3**
This course is designed for Junior or Senior students who have interest in pursuing in-depth studies of aircraft performance, including stability, sonic and hypersonic propulsion, and an introduction into space mechanics and reentry techniques. Prerequisite: AVSC 311.
- AVSC 323 Sport Pilot Ground School Credit 1**
This course is provides the requisite aeronautical knowledge to successfully pass the Federal Aviation Administration Sport Pilot Certificate Written Exam. Students will cover topics including aircraft design and basic aerodynamics, flight Instruments, Federal Aviation Regulations (FARs), meteorology, ground operations, flight planning and navigation techniques, and required endorsements.
- AVSC 331 Aviation Law Credit 3**
This course is a study of the foreign and domestic legal system (federal, state, and local laws and regulations) concerning air transportation and implications as they relate to operations, contracts, insurance, liability, and regulatory status, in the field of aviation. Emphasis is on domestic and international legal aspects of air transportation. Prerequisites: AVSC 112, AVSC 131 and Junior standing.
- AVSC 342 Flight Physiology Credit 3**
This course provides an understanding and overview of physiological situations that can interfere with safety. Topics include high altitude physiology, gas laws, human anatomy, hypoxia, fatigue, jet lag, stress, drugs, alcohol, spatial disorientation, vision, and the associated human factor issues. Prerequisite: AVSC 241 and Junior standing.
- AVSC 355 Airport Planning Credit 3**
This course provides a step by step process of airport design, layout, construction and all planning aspects of a medium hub-sized commercial airport. The student is provided with the knowledge of zoning laws, environment considerations, blueprint design, etc. The student will design and complete his/her own airport layout. Prerequisites: AVSC 131 and AVSC 231 or permission of instructor.
- AVSC 361 Communication Electronics Credit 3**
This course introduces the fundamentals of communication electronics. Topics introduced include signal, noise, FM/AM modulation, digital modulation, FSK, transmitting and receiving circuits, antenna, wave propagation, microwave devices, transmission lines, wave guides, radar systems, fiber optics, and practical applications. Prerequisites: PHYS122, MATH112, ENGE 170 and Junior standing.
- AVSC 365 Transportation Security Credit 3**
This course will focus on Transportation Security Administration regulations covering aviation, railroad, highway, marine, and pipeline transportation. Requirements for all modes of transportation will be covered, with emphasis on aviation security. Personnel and the technology needed to provide a safe and secure environment for airports and airlines will be discussed. Advanced security technology and its use to significantly increase the level of security in transportation will be covered. Prerequisite: Junior Standing.
- AVSC 380 Cooperative or Internship Credit 1-3**
Students are provided a cooperative or internship in the public or private sector to give the student an opportunity to gain experience and professional skills in an area related to aviation. Prerequisite: AVSC 305, Junior standing.
- AVSC 381 Cooperative or Internship II Credit 1-3**
Students are provided a cooperative or internship in the public or private sector to give the student an opportunity to gain experience and professional skills in an area related to aviation. Prerequisite: AVSC 305, Junior standing.

- AVSC 382 Cooperative or Internship III Credit 1-3**
 Students are provided a cooperative or internship in the public or private sector to give the student an opportunity to gain experience and professional skills in an area related to aviation. Prerequisite: AVSC 305, Junior standing.
- AVSC 398 Aviation Studies Abroad Credit 3**
 This course will examine the historical, economic, and political events that shaped the National Airspace System of foreign nations. The goal of the course will be to understand the differences between U.S. operations domestically as compared to abroad. Students will study current trends in international aviation policy by examining foreign Civil Aviation Authority's regulations and discussing their impact on future operations worldwide. Students will study under a host institution as approved by the department. Fees: Will vary on the host site location. Prerequisite: Departmental Approval.
- AVSC 421 Aviation Psychology Credit 3**
 This course is designed to introduce students to human factors and crew resource management theory in aviation that relate to diverse areas such as engineering, psychology, physiology, aerospace safety and flight training. Special attention will be paid to the flight crew ergonomics, technology integration, human performance, pilot selection and training. Prerequisite: PSYC 200 or equivalent, AVSC 241 and Junior status.
- AVSC 431 Maintenance Management Credit 3**
 The aviation industries are concerned about the design and operation of maintenance control systems. The ratio of maintenance craftsmen to operators is higher than traditional industry standards. This fact leads to the realization that the effective management of production resources would yield more benefits to the organization. The emphasis of this course is placed on computer information systems. Seniors or Juniors will demonstrate the knowledge needed to set up and maintain a maintenance program. Prerequisite: Junior standing.
- AVSC 432 Airline Management II Credit 3**
 This course is a study of the business practices, operations, and management principles used by domestic and international airlines. The following topics are discussed: regional airlines, fleet planning, customer services, routing the efficient flow of air traffic, domestic and foreign airline competition, and fare structuring. Prerequisite: AVSC 261 or permission of instructor.
- AVSC 441 Human Factors In Aviation Credit 3**
 Human factors, an interdisciplinary subject, is an empirical science that deals with human capabilities and behavior as applied to a given system. Technical disciplines contributing to human factors are anthropometry, biomechanics, engineering, mathematics, and psychology. This course is a study of the interface and relationship between humans and machines in the aviation environment. The outcome adjusts the things or ways people use them and the environment for a better match of capabilities, limits, or needs. Human Factors in Aviation is designed to bridge the gap between theory and practical application in aviation. The course material will include: performance, design, human senses, information processing, workload, group interaction, fatigue, errors, memory allocation and introduction to controls and displays. Prerequisite: AVSC 421.
- AVSC 442 Safety Management Credit 3**
 This course is a design course. Students will design their own safety plan for the company of the student's choice. The course covers safety quantification, laws, regulations and policies. Topics include: OSHA, cost analysis, hazardous conditions, failure models, risk analysis, and performance measurements. Prerequisite: AVSC 241 and Junior Status.
- AVSC 451 Certified Flight Instructor Airplane - Ground Credit 3**
 This course provides ground instruction required by the FAA for the student to become a FAA certified flight instructor. This course includes fundamentals of instruction, including responsibilities and requirements for instruction of private and commercial airplane flight students. Training includes instruction necessary to complete the airmen knowledge requirements (FAA written exam) for Fundamentals of Instruction and Certified Flight Instructor-Airplane. Prerequisite: AVSC 163, AVSC 251.
- AVSC 452 Certified Flight Instructor Airplane - Flight Credit 2**
 Flight instruction required by the FAA for the student to become a FAA certified flight instructor is the focus of this course. The course includes: fundamentals of instruction; technical subject areas; preflight preparation; preflight lessons on a maneuver to be performed in flight; preflight procedures; airport and seaplane base operations; takeoffs, landings, and go-arounds; fundamentals of flight; performance maneuvers; ground reference maneuvers; slow flight, stalls and spins; basic instrument maneuvers; emergency operations; and post flight procedures. Successful completion of this course includes passing the FAA practical test for Certified Flight Instructor-Airplane. Lab fee \$250. Prerequisites: AVSC 254, AVSC 311. Co-requisite: AVSC 451.

AVSC 461 Certified Flight Instructor - Instrument (Ground) Credit 2
This course provides ground instruction and practice teaching dealing with flight operations pertinent to training students in the instrument flight environment. Training includes instruction necessary to complete the airmen knowledge requirements (FAA written exam) for the Certified Flight Instructor-Instrument (Airplane) rating, and simulator console instructor. Prerequisites: AVSC 254, AVSC 451.

AVSC 462 Certified Flight Instructor - Instrument (Flight) Credit 1
Flight instruction and practice teaching dealing with flight operations pertinent to training students in the instrument flight environment are provided in this course. Training includes instruction necessary to complete the aeronautical skill and experience requirements for the practical test for a FAA Certified Flight Instructor-Instrument (Airplane) certificate. Lab fee \$250. Prerequisite: AVSC 452. Co-requisite: AVSC 461.

AVSC 472 Multi-Engine Pilot Flight Credit 1
Students receive flight instruction necessary to provide the aeronautical skill and knowledge to meet the requirements for the addition of the multi-engine land class rating with instrument privileges. Lab fee \$250. Prerequisite: AVSC 254.

AVSC 490 Special Topics in Aviation Credit 3
This is the capstone course for all Aviation Science students. The course is a project/design or research course in an area of mutual interest to the student and faculty advisor. Prerequisite: Senior Standing.

AVSC 498 Special Topics in Aviation- Aerospace Credit 1-6
This is a reading or research course. Credits can vary with the workload of the research. This course may be repeated (with different topics) for a maximum of 12 credits. Prerequisite: Senior standing.

AVSC 499 Senior Seminar Credit 3
In this senior seminar course, topics vary from year to year. The purpose of this course is to expose Seniors to developing concepts and technology in aviation or aerospace. Prerequisite: Senior standing.

AEROSPACE

ENAE 342 Fluid Mechanics Credit 3
This course covers fluid properties; fluid statistics; conservation of mass, momentum, and energy in control volumes; steady and unsteady Bernoulli's equation; differential analysis of fluid flow; dimensional analysis and similitude; introduction to laminar and turbulent flow; Introduction to boundary layers; lift and drag. Prerequisite: MATH 321, ENGE 261

ENAE 345 Thermodynamics Credit 3
This course covers work and heat transfer; the study of classical thermodynamics approach to closed systems and control volumes; properties and processes of gases and vapors; zeroth, first, and second laws of thermodynamics for closed systems and control volumes; entropy; thermodynamic power and refrigeration/heat pump cycles. Prerequisite: ENGE 261

ENAE 389 Space Systems Design Credit 3
This course covers the design of a complete space system, systems analysis, trajectory analysis, entry dynamics, propulsion and power systems, structural design, launch vehicle integration, avionics, thermal and environmental control, human factors, support systems, and weight and cost estimates; and latest practices in space systems and design of a space mission. Prerequisite: ENGE 261, ENGE 362

ENAE 412 Space Navigation and Guidance Credit 3
This course covers fundamentals of astrodynamics; two-body orbital initial-value and boundary-value problems; celestial mechanics, Kepler's problem, Lambert's problem, orbit determination, multi-body methods, mission planning, and recursive algorithms for space navigation; applications to space vehicle navigation and guidance for lunar and planetary missions for both powered flight and midcourse maneuvers. Prerequisite: ENGE 261

ENAE 420 Aerodynamics Credit 3
This course covers the introduction to aerodynamics fundamental concepts such as lift, drag, moment, pressure distribution, boundary layers; potential theory of bodies; airfoil theory and applications; finite wing theory and applications; introduction to Navier-Stokes equations; laminar boundary layers; turbulent boundary layers; instability and turbulence/separation; introduction to airfoil design. Prerequisite: ENAE 342.

ENAE 430 Finite Element Analysis Credit 3
This course covers the introduction to finite element method and application; relations between stresses, strains, displacements, temperature and material properties; discretization and meshing; force vector, displacement vector, stiffness matrix, assembly process, solution techniques; truss elements, beam elements; triangular and quadrilateral elements; iso-parametric formulation; plane stress and plane strain applications; penalty and Lagrangian methods; software applications. Prerequisite: ENGE 270, ENGE 362

ENAE 440 Mechatronics Credit 3
This course covers physical and mathematical modeling of mechanical, electrical, electromechanical, thermal, fluid, and multidisciplinary physical systems; sensors and electronics for measurements of system; embedded/external feedback control using conventional and intelligent control algorithms; computer aided engineering tools for mechatronic system design and analysis; practical applications using mechatronic devices. Prerequisite: ENGE 370, ENGE 382

ENAE 442 Micro-Electro-Mechanical Systems Credit 3
Basic integrated circuit manufacturing processes; electronics devices fundamentals; microelectromechanical systems fabrications including surface micromachining, bulk micromachining, and lithography; introduction to micro-actuators and microsensors such as micromotors, grippers, accelerometers and pressure sensors; physics of MEMS, scaling law, heat transfer, mechanics, electrostatics; introduction to micro-fluid systems; mechanical and electrical issues in micromachining; packaging techniques; CAD tools to design microelectromechanical structures. Prerequisite: ENGE 380

ENAE 462 Digital Control Systems Credit 3
Introduction to techniques for the analysis and design of digital control systems; linearization; difference equations; z-transforms; design of linear controllers; digital implementation of control systems. Prerequisite: ENGE 382.

ENAE 464 Embedded System Design Lab Credit 2
Fundamentals of embedded system hardware and firmware design; embedded processor selection; hardware/firmware partitioning; architecture and instruction set of a microcontroller; firmware architecture, design, and debugging; circuit design, layout, and debugging; development tools; a set of design experiments utilizing a popular microcontroller for practical applications. Prerequisite: ENGE 383.

ENAE 465 Remote Sensing and Image Processing Credit 3
Passive remote sensing from aerial platforms; basic principles of photogrammetry; geospatial information technology, georeferencing, mosaicking, and rectification; RGB and CIR imagery, multi-spectral imagery; fundamentals of digital image processing; introduction to active remote sensing; applications of remote sensing in engineering and sciences. Prerequisite: ENGE 370

ENAE 467 Design of Autonomous Aerial Systems Credit 3
Introduction to unmanned aerial vehicles, manned and unmanned aircraft design; conceptual unmanned aerial vehicles design based on concepts drawn from airplane aerodynamics, aircraft structure, stability and control, propulsion and compressible flows, navigation, guidance, communication, and design of control sensors; design for efficiency, design for performance, design for stability; introduction to ground, wind tunnel and flight testing. Prerequisite: ENAE 420

ENAE 472 Selected Topics in Engineering Credit 3
This course covers selected topics on special or current topics and issues relating to engineering structured for students in engineering and other areas. Prerequisite: Permission of Instructor

ENAE 475 Engineering Seminar Credit 3
This course covers a general seminar course that covers current topics in aerospace Engineering. Prerequisite: Permission of Instructor.

ENGINEERING - COMPUTER

ENCE 350 Computer Organization Credit 3
This course provides an introduction to the structure and function of computers, digital computer organization, design of digital computer at the machine and microprogramming level, assembly language programming concepts, data and instruction formats, architecture of the central processing unit, input-output peripherals, registers, memory unit, addressing modes, subroutines and their linkages. Prerequisite: ENGE 250.

- ENCE 352 Microprocessors & Microcomputers Credit 3**
 This course focuses on microprocessor architectures, instruction sets, and applications, bus structures, memory, and I/O interfacing. The course also covers assembly language programming, real-time system design, interrupt-driven system design, LSI peripheral configuration and drivers, and embedded-system design. Prerequisite: ENGE 250.
- ENCE 387 Simulation & Virtual Reality Credit 3**
 This course offers an introduction to computer simulation and virtual reality; fundamental of 3-D simulation modeling; analysis of model output; interaction devices for virtual environments; physical based simulation; virtual prototypes; data exchange and data communication; user interfaces and interactive applications; complete virtual reality systems; using simulation and virtual reality software for modeling. Prerequisite: ENGE 370.
- ENCE 452 Artificial Intelligence Credit 3**
 Introduction to theoretical and computational techniques related to human and machine intelligences, selection of data representations and algorithms useful in the design and implementation of intelligent systems, knowledge representation languages, problem-solving heuristics and machine learning are the focus of this course. Prerequisite: ENGE 370
- ENCE 454 Computer System Architecture Credit 3**
 This course provides an overview of fundamentals of computer design; cost and performance models; evaluation methodologies; implementation techniques and tools; instruction set architectures; parallel and pipeline design; memory system design and basic concepts in storage systems. Prerequisite: ENCE 352.
- ENCE 456 Microprocessors Design Lab Credit 2**
 Hardware designed experiments to provide practical experience in the design, construction, components selection, and interfaces of digital computers and data transmission systems are examined in this course. Prerequisite: ENCE 352. Co-requisite: ENCE 454
- ENCE 458 VLSI Design Credit 3**
 This course focuses on the introduction to the concepts of large-scale integrated circuit design; device fabrication and modeling; designing CMOS combinational and sequential circuits; designing arithmetic building blocks and memory structures; interconnection and timing issues; testing and verification; simulation and use of current CAD tools. Prerequisite: ENGE 340
- ENCE 460 Digital Signal Processing Credit 3**
 This course explores an introduction to digital signal processing; discrete-time description of signals; z-transform; digital filter structures; infinite and finite impulse response filter design techniques. Prerequisite: ENGE 330
- ENCE 462 Digital Control Systems Credit 3**
 This course offers an introduction to techniques for the analysis and design of digital control systems; linearization; difference equations; z-transforms; design of linear controllers; and digital implementation of control systems. Prerequisite: ENGE 382.
- ENCE 464 Embedded System Design Lab Credit 2**
 Fundamentals of embedded system hardware and firmware design, embedded processor selection, hardware/firmware partitioning, architecture and instruction set of a microcontroller, firmware architecture, design, and debugging, circuit design, layout, and debugging, development tools, and a set of design experiments utilizing a popular microcontroller for practical applications are examined. Prerequisite: ENGE 383.
- ENCE 468 Robotics Credit 3**
 This course examines an introduction to industrial manipulator systems; Kinematic and dynamic models of robotic arms; homogeneous transformations; forward and inverse kinematics; motion control through coordinate transformations; and robotic vision and sensors. Prerequisite: MATH 321, ENGE 382.
- ENCE 469 Robotics and Automation Design Laboratory Credit 2**
 This course continues the topics covered in ENCE 468 through laboratory experiments to design and develop flexible automation systems utilizing robot manipulators. Prerequisite: ENCE 468.
- ENCE 472 Selected Topics in Engineering Credit 3**
 This course covers selected topics on special or current topics and issues relating to engineering structured for students in engineering and other areas. Prerequisite: Permission of Instructor.

ENEE 468 Robotics Credit 3
This course is an introduction to industrial manipulator systems; Kinematic and dynamic models of robotic arms; homogeneous transformations; forward and inverse kinematics; motion control through coordinate transformations; robotic vision and sensors. Prerequisite: MATH 321, ENGE 382.

ENEE 469 Robotics and Automation Design Laboratory Credit 2
This course provides laboratory experiments to design and develop flexible automation systems utilizing robot manipulators based on topics covered in ENEE 468 Robotics course. Prerequisite: ENEE 468.

ENEE 472 Selected Topics in Engineering Credit 3
This course covers selected topics on special or current topics and issues relating to engineering structured for students in engineering and other areas. Prerequisite: Permission of Instructor.

ENEE 475 Engineering Seminar Credit 3
This is a general seminar course that covers current topics in electrical Engineering. Prerequisite: Permission of Instructor.

ENGINEERING

ENGE 100 First Year Orientations with Engineering Credit 1
An overview of the engineering profession and college life; an orientation for incoming freshmen to stress, time management, ethics, and life skills; educational requirements, scholarship availability, career opportunities, and the importance of teamwork are explored. Prerequisite: Engineering Freshman Status.

ENGE 150 Modern Engineering Design Credit 3
This course provides an introduction to modern engineering design with emphasis on various aspects of developing a product via hands-on design approach, communication skills, and teamwork, use of product visualization and computer software such as word processing, power point, and spreadsheet; students work as teams to develop and design a working prototype. Prerequisite: MATH 109. Lab fee: \$25.00.

ENGE 170 Programming Concepts for Engineers Credit 3
This course provides an introduction to algorithms, overview of computers and programming, principles of software development, high level languages, C-programming; input/output, data types and variables, operators and expressions, selection structure, repetition, functions, arrays, pointers, strings, structure data types, linked list, stream and file management and debugging and documentation are provided in this course. Prerequisite: ENGE 150

ENGE 240 Basic Circuit Theory Credit 3
The course focuses on basic circuit elements, resistors, capacitors, inductors, independent and dependent sources, and operational amplifier; Kirchhoff's laws; nodal and mesh analysis; superposition; Thevenin and Norton theorems; DC and AC steady state analysis; Transient analysis for first and second order circuits; and phasors. Prerequisite: MATH 211. Co-requisite: MATH 321, ENGE 241.

ENGE 241 Analog Circuit Lab Credit 1
This course is an introduction to basic measurement techniques and electrical laboratory equipment, power supplies, oscilloscopes, multi-meters, and function generators; and experiments concerning principles taught in ENGE 240 Basic Circuit Theory course. Prerequisite: MATH 211. Co-requisite: ENGE 240.

ENGE 250 Digital Logic Design Credit 3
This course is an introduction to number systems, elements of binary arithmetic and codes; Boolean algebra; Karnaugh map and simplification of gate networks; Quine-McCluskey method; adders, subtractors, comparators, multiplexers and demultiplexers, and PLAs; latches, flip-flops, shift registers, counters, and memories; design and analysis of combinational logic and synchronous sequential circuits. Prerequisite: ENGE 170. Co-requisite: ENGE 251.

ENGE 251 Digital Logic Lab Credit 1
This course provides an introduction to basic laboratory skills in operating digital test equipment, testing digital logic circuits, generating test inputs and analyzing outputs, and emphasis is placed on experiments concerning principles taught in ENGE 250 Digital Logic Design course. Prerequisite: ENGE 170. Co-requisite: ENGE 250.

- ENGE 260 Statics Credit 3**
 This course offers addition, subtraction, and multiplication of force and moment vectors, equilibrium of particles, planar, and 3-dimensional rigid bodies under the action of forces and moments, applications of equilibrium principles to simple trusses, frames, and machines, center of mass and centroids, moments of inertia; internal forces and moments; and shear force and bending moment diagrams. Prerequisite: MATH 112.
- ENGE 261 Dynamics Credit 3**
 This course covers kinematics and kinetics of particles and rigid bodies; relative motion, force acceleration, work energy, and impulse momentum relationships in Cartesian, normal tangential, polar, spherical, and cylindrical coordinate systems; and an introduction to design analysis involving dynamics principles. Prerequisite: MATH 211, ENGE 260.
- ENGE 270 Computer Aided Design Credit 3**
 This course is an introduction to 3-D solid modeling, engineering drawings, assembly modeling and computer animation based on parametric feature-based CAD systems such as Solid Works along with an overview on main geometric modeling theoretical concepts behind commercial CAD systems. Prerequisite: ENGE 150.
- ENGE 320 Statistics and Probability for Engineers Credit 3**
 This course examines probability, random variables and processes, discrete and continuous distributions and densities, collection and presentation of sample data, frequency distributions and histograms, confidence intervals, hypothesis testing, basic problems of statistical inference, linear regression and correlation, designing engineering experiments. Prerequisite: MATH 321.
- ENGE 340 Analog & Digital Electronics Credit 3**
 Conceptual operation of PN-junction diodes, bipolar junction transistors (BJTs), and mono-oxide semiconductor field effect transistors (MOSFETs); transistor circuits for inverters, NAND, and NOR gates; semiconductor memory; large and small signal characteristics of diodes and transistors; basic transistors configurations; DC bias and small signal analysis of BJTs and MOSFETs; multiple-transistor circuits such as operational and differential-amplifiers; frequency response of simple amplifiers. Prerequisite: ENGE 240. Co-requisite: ENGE 341.
- ENGE 341 Analog & Digital Electronics Lab Credit 1**
 This course provides laboratory experiments concerning topics taught in ENGE 340 analog and digital electronics course. Prerequisite: ENGE 241. Co-requisite: ENGE 340.
- ENGE 362 Mechanics of Materials Credit 3**
 Students will be introduced to stress, strain, materials properties, and Hooke's law; distortion of engineering materials in relation to changes in stress or temperature; torsion of circular rods and tubes; bending and shear stresses in beams; deflection of beams; thin wall pressure vessels; combined loading; stress and strain transformation; buckling of columns; engineering applications. Prerequisite: MATH 211, ENGE 260.
- ENGE 370 Computational Methods in Engineering Credit 3**
 Fundamentals of linear algebra and basic operations of vectors and matrices are discussed; students will also study error analysis, solution of a system of linear equations, iterative solution of nonlinear equations, numerical integration, and numerical solution of differential equations. An introduction to Matlab software programming and applications relating to the computational functions in Matlab is included. Prerequisite: MATH 211. Co-requisite: MATH321.
- ENGE 380 Instrumentations Credit 3**
 This course provides principles of measurement and instrumentation, transduction and calibration, noise measurement and signal conditioning, data acquisition, recording, and presentation, sensor selection to measure temperature, pressure, flow, level, force, and torque, transducers to measure translational displacement, velocity, acceleration, and vibration, rotational displacement, velocity, acceleration measurement and sensor application to measure different physical phenomena. Prerequisite: ENGE 240. Co-requisite: ENGE 340.
- ENGE 382 Control Systems Credit 3**
 Mathematical models of control system are discussed in addition to Laplace transform; signal flow graph; frequency and time domain characteristics of the system response; methods of linear control system analysis and designs, root locus, Bode, and Nyquist plots; stability theory; design specifications in time and frequency domains; compensator design; and PID controller design. Prerequisite: MATH 321. Co-requisite: ENGE 383.
- ENGE 383 Instrumentation & Control Lab Credit 1**
 This course involves experiments on topics covered in ENGE 380 Instrumentations and ENGE 382 Control Systems courses. Prerequisite: ENGE 380. Co-requisite: ENGE 382.

ENGE 476 Senior Design Project I Credit 2
Students are introduced to a design project to demonstrate their ability to engage in the practice of engineering as a profession. Students in consultation with the supervising professor and course coordinator must identify and implement a design project. The topic may be analytical, numerical, experimental, or field-oriented, utilizing knowledge gained from academic and research experiences integrated in the curriculum. A written proposal, literature search, and an oral presentation are required. Use of professional engineering standards and a design approach are required. Prerequisite: Senior Standing and Permission of Instructor.

ENGE 477 Senior Design Project II Credit 2
This course is a continuation of ENGE 476 Senior Design Project I, with the same standards and requirements. A progress report, a final report, and an oral presentation are required. Prerequisite: ENGE 476.

ENGINEERING – MECHANICAL

ENME 342 Fluid Mechanics Credit 3
This course explains fluid properties, fluid statistics, conservation of mass, momentum, and energy in control volumes, steady and unsteady Bernoulli's equation, differential analysis of fluid flow, and dimensional analysis and similitude. This course also provides an introduction to laminar and turbulent flow in addition to an introduction to boundary layers, lift and drag. Prerequisite: MATH 321, ENGE 261.

ENME 345 Thermodynamics Credit 3
This course offers insight into work and heat transfer, the study of classical thermodynamics approach to closed systems and control volumes, properties and processes of gases and vapors, zeroth, first, and second laws of thermodynamics for closed systems and control volumes, entropy, thermodynamic power and refrigeration/heat pump cycles. Prerequisite: ENGE 261.

ENME 346 Heat Transfer Credit 3
This course examines conduction, convection, radiation, heat storage, energy conservation, steady-state/transient conduction, thermal circuit modeling, multidimensional conduction, surface radiation properties, enclosure radiation exchange, surface convection/fluid streams over objects, non-dimensional numbers, laminar, turbulent, thermo buoyant flow, boiling and condensation and heat exchangers. Prerequisite: ENME 342.

ENME 422 Mechanisms and Machine Design Credit 3
This course focuses on Kinematic and dynamic analysis of motion of linkages, cams, and gears/gear trains, synthesis and analysis of motion in machines, visualizing motion in mechanisms and machinery using simulation software environments as well as exploration of machine/mechanism design solution for specified requirements. Prerequisite: ENGE 261, ENGE 370.

ENME 425 Rapid Prototyping and Product Development Credit 3
This is an introduction to rapid prototyping; product development process; materials for rapid prototyping; CAD solid model interaction with rapid prototyping systems; applications of rapid prototyping technologies to product development and design; rapid tooling process, rapid manufacturing process; reverse engineering. Prerequisite: ENGE 270, ENGE 362.

ENME 430 Finite Element Analysis Credit 3
This is an introduction to finite element method and application; relations between stresses, strains, displacements, temperature and material properties; discretization and meshing; force vector, displacement vector, stiffness matrix, assembly process, solution techniques; truss elements, beam elements; triangular and quadrilateral elements; iso-parametric formulation; plane stress and plane strain applications; penalty and Lagrangian methods; and software applications. Prerequisite: ENGE 270, ENGE 362.

ENME 440 Mechatronics Credit 3
In this course, emphasis is placed on physical and mathematical modeling of mechanical, electrical, electromechanical, thermal, fluid, and multidisciplinary physical systems; sensors and electronics for measurements of system; embedded/external feedback control using conventional and intelligent control algorithms; computer aided engineering tools for mechatronic system design and analysis and practical applications using mechatronic devices. Prerequisite: ENGE 370, ENGE 382.

ENME 442 Micro-Electro-Mechanical Systems Credit 3
This course offers basic integrated circuit manufacturing processes; electronics devices fundamentals; microelectromechanical systems fabrications including surface micromachining, bulk micromachining, and lithography; introduction to micro-actuators and microsensors such as micromotors, grippers, accelerometers and pressure sensors; physics of MEMS, scaling law, heat transfer, mechanics, electrostatics; introduction to micro-fluid systems; mechanical and electrical issues in micromachining; packaging techniques; and CAD tools to design microelectromechanical structures. Prerequisite: ENGE 380.

- ENME 462 Digital Control Systems Credit 3**
This is an introduction to techniques for the analysis and design of digital control systems; linearization; difference equations; z-transforms; design of linear controllers; and digital implementation of control systems. Prerequisite: ENGE 382.
- ENME 464 Embedded System Design Lab Credit 2**
Fundamentals of embedded system hardware and firmware design are the focus of this course. Students will also learn embedded processor selection, hardware/firmware partitioning; architecture and instruction set of a microcontroller, firmware architecture, design, and debugging, circuit design, layout, and debugging; development tools and a set of design experiments utilizing a popular microcontroller for practical applications. Prerequisite: ENGE 383.
- ENME 468 Robotics Credit 3**
This course provides an introduction to industrial manipulator systems, Kinematic and dynamic models of robotic arms, homogeneous transformations, forward and inverse kinematics, motion control through coordinate transformations, and robotic vision and sensors. Prerequisite: MATH 321, ENGE 382.
- ENME 469 Robotics and Automation Design Laboratory Credit 2**
This course involves laboratory experiments to design and develop flexible automation systems utilizing robot manipulators based on topics covered in ENME 468 Robotics course. Prerequisite: ENME 468.
- ENME 472 Selected Topics in Engineering Credit 3**
This course offers selected topics on special or current topics and issues relating to engineering structured for students in engineering and other areas. Prerequisite: Permission of Instructor.
- ENME 475 Engineering Seminar Credit 3**
This is a general seminar course that covers current topics in Mechanical Engineering. Prerequisite: Permission of Instructor.

DIRECTORY OF FACULTY

- Burrows-McElwain, J. Bryan** Lecturer
B.S., University of Maryland Eastern Shore; M.S., Embry Riddle Aeronautical University
- Dabipi, Ibibia K** Professor
B.S., Texas A&I University; M.S., Ph.D., Louisiana State University
- Eydgahi, Ali** Professor and Chair
B.S., Detroit Institute of Technology; M.S., Ph.D., Wayne State University
- Hartman, Christopher** Lecturer
B.S., University of Maryland Eastern Shore, M.S., Embry Riddle Aeronautical University
- Ibrahim, Mamoun Y** Lab Manager
B.S., University of Gezira; M.S., Tuskegee University
- Jin, Yuanwei** Assistant Professor
B.S., M.S., East China Normal University; Ph.D., University of California at Davis
- Matin, Payam H.** Assistant Professor
B.S., University of Science and Technology; M.S., University of Tehran; Ph.D., Oakland University
- Nagchaudhuri, Abhijit** Professor
B.S., Jadavpur University; M.S., Tulane University; Ph.D., Duke University
- Stockus, Anthony J.** Coordinator, Engineering
B.A., Chapman College; M.B.A., Central Missouri State University

DEPARTMENT OF HOTEL AND RESTAURANT MANAGEMENT

<http://www.umes.edu/SBT>

Ernest P. Boger, Chairperson

MISSION

The mission of the Department of Hotel and Restaurant Management (HRM) within the School of Business and Technology is to prepare entry level hospitality management professionals with essential skills for long term hospitality career success and industry leadership.

HRM also fosters research and service of direct application and benefit to the State of Maryland and the global hospitality industry. Exhibit #1

The essential skills referenced in the mission statement translate operationally into a six-point graduate success profile objective/outcome that holds that UMES/HRM graduates will possess:

- Hospitality Attitude
- Marketing Mindedness
- Quantitative Competence
- Technological Fluency
- Relevant Work Experience
- International/Multicultural Sensitivity

This profile is delivered across the HRM curriculum and measured via a Student Learning Outcome Assessment Process (SLOAP) with the expectation that students will be able to:

- identify and describe the fundamental principles and practices of restaurant management and hotel management operations;
- apply proper culinary terminology to professional communications;
- manage food production and service, design staffing schedules, plan and analyze menus;
- apply research theory and techniques, including survey design and analysis in verbal and written formats;
- identify, integrate and apply basic accounting, cost accounting, financial analysis and reporting necessary for effective decision-making in the hospitality industry;
- develop, organize and plan hospitality events and demonstrate the ability to evaluate, critique and prepare with summaries including recommendations

OBJECTIVES

The objectives of the Department of Hotel and Restaurant Management are to:

1. Demonstrate adequate knowledge in general and specific matters of communication, mathematics, computers, social and natural sciences, humanities, and health and physical education.
2. Explain the historical development and current market segmentation of the hospitality industry.
3. Plan, purchase and prepare meals in quantity and reflecting a variety of service styles in hospitality experience.
4. Demonstrate basic management skills of planning, organizing and controlling.
5. Demonstrate basic business administration skills of accounting, financial analysis and marketing.
6. Demonstrate basic knowledge and management skills related to front office, housekeeping and engineering departments of hotel operations.

DEGREES OFFERED

Bachelor of Science – Hotel and Restaurant Management

Bachelor of Science – PGA Golf Management

DEPARTMENTAL REQUIREMENTS

The admission of students to the undergraduate programs in the Department of Hotel and Restaurant Management is based upon the general admission requirements of the University.

Students wishing to pursue a major in Hotel and Restaurant Management must meet all University of Maryland Eastern Shore entrance requirements. Freshmen must take a Basic Skills Test during their first semester as a major and demonstrate ability at a determined grade level. In order to remain in good standing in Hotel and Restaurant Management Department Degree programs, the student must maintain a minimum GPA of 2.0 with no grade less than "C" in major coursework and general education courses, where required. Transfers into the major must present an overall GPA of not less than 2.0. All majors must show progress in major and professional course work, attend and actively participate in the Student Professional Association (Eta Rho Mu) and demonstrate interest in the hospitality industry.

All Hotel and Restaurant Management (HRM) majors are required to complete 1000 hours of hospitality work experience as a requirement for graduation.

Specific business attire, culinary uniform requirements and related requirements are available in the HRM Student Handbook.

Students majoring in Hotel and Restaurant Management must complete a total of 120 hours of University courses. This includes 41 credit hours of General Education requirements, 64 hours of major core requirements, 3 credit hours of supportive courses and 12 hours of departmental electives.

COMMON REQUIRED COURSES

FMGT 101	FMGT 211	FMCT 301	FMCT 371
FMCT 110	FMCT 212	FMGT 350	FMGT 372

REQUIRED MAJOR COURSES

HMGT 100 A/B	HMGT 200 A/B	HMGT 300 A/B	HMGT 401
HMGT 101	HMGT 220	HMGT 301	HMGT 402
HMGT 110		HMGT 303	HMGT 440
HMGT 120		HMGT 304	HMGT 445
HMGT 130		HMGT 305	HMGT 470
		HMGT 350	HMGT 475
			HMGT 480
			HMGT 488
			HMGT 490
			HMGT 491
			HMGT 497
			HMGT 498
			HMGT 499

CAREER OPPORTUNITIES

The Bachelors degree in Hotel and Restaurant Management at UMES prepares graduates for a wide variety of entry level management positions in the hospitality industry. These include Hotel Front Office, Housekeeping, and Marketing positions, as well as Banquet, Restaurant and Special event Management. Broader foodservice areas include contract operations, quick service to upscale free standing restaurant management, and private catering as lucrative career paths. The prevalence of major overlapping skill sets in the hospitality industry means that graduates will also be prepared for a selection of complimentary management career paths in travel/tourism, entertainment and related supportive industry services. While preparation for management is at the core of the HRM curriculum, sufficient emphasis is placed on entrepreneurship for those individuals who are motivated to own their own business and create long-term wealth.

CURRICULUM GUIDE FOR HOTEL AND RESTAURANT MANAGEMENT

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 101	3	ENGL 102	3
BUAD 132	3	MATH 102	3
BIOL 101	3	GEN ED CURR AREA III	3
BIOL 103	1	FMGT 101	2
HMGT 101	3	FMGT 110	2
GNST 100	1	HMGT 100B	.5
HMGT 100A	<u>.5</u>	HMGT 110	<u>0</u>
	14.5		13.5

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 203	3	EDHE 111	3
HRM Elective ¹	3	GEN ED CURR. AREA II	3
ECON 201 or		FMGT 212	3
ECON 202	3	GEN ED CURR. AREA I	3
FMGT 211	3	HMGT 220	4
HMGT 200A	.5	HMGT 200B	.5
GEN ED CURR AREA I	<u>3</u>	HMGT 120	<u>0</u>
	15.5		16.5

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
HMGT 340	3	TMGT 306	3
ENGL 305 or		HMGT 303	3
ENGL 310	3	FMGT 301	3
FMGT 301	3	HMGT 350	3
HMGT 305	3	FMGT 371	2
HMGT 350	3	FMGT 372	1
HMGT 300A	<u>.5</u>	HMGT 130	<u>0</u>
	15.5	HMGT 130	15.5

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
HMGT 402	3	HRM Elective	3
HMGT 440	3	HRM Elective	3
HMGT 404	3	HMGT 491	3
HRM Elective	3	HMGT 401	3
HMGT 490	3	HMGT 498	<u>1</u>
HMGT 497	<u>1</u>		13
	16		

Total Credit Hours: 120

¹Student must select TMGT 130 to satisfy this Elective.

MINOR PROGRAMS

The Department of Hotel and Restaurant Management offers minors for HRM majors only for the following area: Culinary Arts Restaurant Management (CARM) and Travel/Tourism Management (TMGT)

HRM majors can only earn the minor in Culinary Arts Restaurant Management (CARM) by completing the following 18 credit hour sequence of courses: CARM 301, CARM 303, CARM 401, CARM 403, CARM 405 and CARM 407

HRM majors only can earn the minor in Travel/Tourism Management (TMGT) by completing the following 18 credit hour sequence of courses: TMGT 130, TMGT 300, TMGT 309, TMGT 420 and TMGT 499

HRM also offers minors for Non-HRM majors only for the following area: Food and Beverage Management and Hotel Administration. Non-HRM majors can earn the minor in Food and Beverage Management by completing the following 18 credit hour sequence of courses in the following: FMGT 211, FMGT 212, FMGT 301, FMGT 350, FMGT 371 and FMGT 372.

Non-HRM majors can earn the minor in Hotel Administration by completing the following 18 credit hour sequence of courses in the following: HMGT 101, HMGT 301, HMGT 340, HMGT 350, HMGT 401 and HMGT 402.

COURSE DESCRIPTIONS FOR CULINARY ARTS

CARM 301 American Cuisine

Credit 3

In this course students examine the major culinary regions of North America; emphasis is placed on cultural habits, food availability, geographic locations, etc., and how those variables affect and influence each region cooking style and the actual cuisine. Students will prepare foods from the regions and display the appropriate cooking methods and techniques. Course is formatted as one 50 minute lecture and one four and one-half hour laboratory per week. Chef knives and uniforms are required.

CARM 303 International Cuisine

Credit 3

In this course, students are introduced to the techniques, ingredients, and spices unique to a variety of international cuisines. Students research and prepare representative regional menu items from the European and American continents. Timing, organization, mise en place, and plate presentation are stressed. The course format is a 50-minute lecture and one four-hour laboratory per week. Chef knives and uniforms are required.

CARM 401 Garde Manager

Credit 3

This course introduces students to the modern and traditional techniques in the preparation of cold entrees, pates, terrines, galantine chaud-froid, and ice carving. Students plan, organize, and direct buffets. This course also concentrates on the practical techniques of showpieces and centerpieces. The course format is a 50-minute lecture and one four-hour laboratory per week.

CARM 403 Baking Basic Breads

Credit 3

This course introduces students to the basic fundamentals of bread baking. Different types of breads will be discussed and produced: quick, traditional, regional and international breads. The components of bread baking will be applied; also, different mixing, leavening agents and baking techniques will be discussed and executed. Course is formatted as one 50 minute lecture and one four and one-half hour laboratory per week. Chef knives and uniforms are required.

CARM 405 Pastry Shop

Credit 3

In this course, emphasis is placed on pastry work and management, such as the production of specialty breads, including brioche, puff pastry, Danish, and croissants. Cookie and tart dough, torts and specialty cakes are covered. This course also introduces the student to chocolate ganache, piping with gelee, Bavarian, and marzipan. The course format is a 50-minute lecture and one four-hour laboratory per week. Chef knives and uniforms are required.

CARM 407 Classical Kitchen

Credit 3

In this course, students examine the history and terms relating to classical menus, food preparation, and presentation. Students prepare a classical French menu each day following the principles and techniques of Auguste Escoffier. Emphasis is placed on organization, timing, and platter and plate presentation. The course format is a 50-minute lecture and one four-hour laboratory per week. Chef knives and uniforms are required.

FOOD AND BEVERAGE MANAGEMENT

FMGT 101 Applied Food Service Sanitation

Credit 2

This course covers, in detail, the principles and practices of sanitation and hygiene as applied to the food service industry. Successful completion of the course qualifies students for a National Restaurant Association Educational Foundation Sanitation Certificate. The emphasis of the course is on the training of supervisory personnel in sanitation procedures.

FMGT 110 Restaurant and Table Service

Credit 2

In this introductory class to the organization and management of the front of the house, students learn to plan service, write standards, schedule labor, and execute service for up to 50 customers. The course format is a 50-minute lecture and two three-hour laboratory periods per week. A uniform is required.

FMGT 211 Food Production I

Credit 3

This introductory course in food production includes basic foods nutrition, overview of the kitchen brigade, culinary terminologies, products identification, cooking techniques, knives skills, utensils and equipment usage and sanitary care. Also, produce, present and evaluate cooked products. The course format is two 50 – minutes lectures and two – hour laboratory periods per week. Chef knives set and appropriate commercial kitchen uniforms are required.

FMGT 212 Food Production II Credit 3
In this course students are introduced to leadership/management, while continuing to advance their culinary and production knowledge by executing upscale luncheons for 50 paying guests. Also students learn to plan and organize commercial kitchen: staffing, menu planning, recipes, and production schedules and communicate using culinary terminologies. One 50 – minute lecture and one 5 hour laboratory per week is class format. Chef knives set and appropriate commercial kitchen uniforms are required. Prerequisite: FMGT 211 with minimum passing grade “C”.

FMGT 301 Food & Beverage Cost Accounting Credit 3
This course emphasizes cost accounting and budget and pricing techniques for the hospitality industry. Recipe costs, portion control, product yields, inventory methods and valuation, and menu engineering are studied. HRM Department Major, HMGT 340, Curriculum Area II (ECON 201 or 202), and Curriculum Area IV (Mathematics) requirements must be met.

FMGT 350 Commercial Food Production Credit 3
This upper level production course emphasizes equipment, foods, staffing, schedule, planning, and kitchen brigade organization management. The class also, produces and present 4 gourmet dinners for 50 paying guests; emphasizing Haute Cuisine, Bridging, Foods and Wine Pairing. Other major areas of concentration include cost awareness and control, profitability and staff management. Also, Front of the House – Service Management, Middle of the House – Production and Back of the House – Stewarding/Sanitation Management are highlight. This course meets two 50 – minute lectures and one 5 hour laboratory per week. Prerequisite: FMGT 212 with minimum passing grade “C”.

FMGT 371 Hospitality Purchasing Credit 2
This course emphasizes the managerial principles of the purchasing function and covers fundamental concepts, supplier selection, best practices, purchase specifications and purchase orders, product yield, and the receiving, storing, and issuing of hospitality products. An application research project is required. Co-requisite: FMGT 372. Prerequisite: HRM Department Major, Curriculum Area II (ECON 201 or 202), and Curriculum Area IV (Mathematics) requirements must be met.

FMGT 372 Purchasing Laboratory Credit 1
This lab emphasizes the development and use of knowledge related to hospitality supplier selection, purchase specifications and purchase orders, product yield, and best practices. Co-requisite: FMGT 371. Prerequisite: HRM Department Major, Curriculum Area II (ECON 201 or 202), and Curriculum Area IV (Mathematics) requirements must be met.

HOTEL AND RESTAURANT MANAGEMENT

HMG 100A/B, 200A/B, 300A/B Professional Development Credit 5
This course provides students the opportunity to view aspects of the hospitality industry and related areas that are not available in regularly scheduled courses. It includes, but is not limited to, professional conduct, guest speakers, industry visitations, student presentations, and films. It is required of all majors, each semester (A –fall, B –spring) of their freshman, sophomore and junior years. Grading will be satisfactory/ unsatisfactory depending on the student's end-of-semester status in Eta Rho Mu.

HMG 101 Introduction to the Hospitality Industry Credit 3
The course provides the student with an understanding of the scope and complexity of the hospitality industry. The student is introduced to the opportunities available and the training necessary to achieve a successful hospitality management career. Laboratory sections are scheduled as needed.

HMG 110, 120, 130 Hospitality Experience Credit 0
Students are required to obtain a total of 1000 hours of acceptable hospitality experience during their freshman (110), sophomore (120) and junior (130) years. It is recommended that the student works a minimum of nine weeks per summer. The 1000-hour hospitality experience requirement may be obtained prior to enrollment, during studies or after completion of course work, but must be completed before graduation.

HMG 220 Technology Management in the Hospitality Industry Credit 4
This course provides an introduction to basic computing concepts and functions and the use of computers and application-specific software in the hospitality industry, including Microsoft Office 2007, point-of-sale, enterprise management, sales and catering, and property management systems. Prerequisite: HRM Department Major.

- HMGT 301 Front Office Management Credit 3**
 In this detailed study of the management systems in the hotel front office, students are able to identify and evaluate the information systems used in the hotel to facilitate management decision making. The course includes inter-departmental communications, managerial reporting, computer applications, and a review of future trends. Laboratory sections are scheduled as needed.
- HMGT 303 Hospitality Facilities, Operations, and Maintenance Credit 3**
 This course includes a study of basic engineering, public safety, building codes, equipment selection, and design procedures related to the hospitality industry. In addition, all hotel operating departments are reviewed and discussed.
- HMGT 305 Business and Entrepreneurial Credit 3**
 This class addresses the unique entrepreneurial experience of conceiving, evaluating, creating, managing and potential selling a business. The goal is provide a solid background with practical application of important concepts applicable to entrepreneurial environment. In addition to creative aspects, key business areas of finance, accounting, marketing and management will be addressed from an entrepreneurial perspective. The Dynamic Marketing Triangle philosophy comprehensive course delivery structure.
- HMGT 309 Beer, Wine and Spirits Credit 3**
 This course provides a comprehensive study of alcoholic beverages, with an emphasis on the origin, production, classification, and service of beer, wine, and spirits; bartending basics; alcohol awareness, liability, and the responsible serving of alcoholic beverages. An application research project is required. Prerequisite: HRM Department Major and students must be 21 years old.
- HMGT 340 Hospitality Industry Accounting Credit 3**
 This course focuses on accounting practices, concepts, principles, and legal and ethical issues in the hospitality industry. The accounting cycle, adjusting entries, corporate transactions, and the preparation and analysis of financial statements are emphasized. Prerequisite: HRM Department Major, Curriculum Area II (ECON 201 or 202), and Curriculum Area IV (Mathematics) requirements must be met.
- HMGT 350 Marketing Hospitality and Leisure Services Credit 3**
 Focusing on the application of marketing principles and techniques to the hospitality and travel industries, this course examines how the marketing concepts of product, place, price and promotion, can be effectively utilized in the hospitality industry. Practical applications of promotion publicity, public relations, and advertising are demonstrated in case studies and class assignments.
- HMGT 401 Law and the Hospitality Industry Credit 3**
 A study of laws applicable to the hospitality industry, this course includes the host's responsibility, negligence, liability, contract, torts, regulations, and insurance.
- HMGT 402 Human Resources Management Credit 3**
 Supervisor and employee relations with emphasis on human relations, organization, and manpower planning and development, are the foci of this course. Also, employee compensation and benefits in the hospitality industry, as well as, ethics and policies, are included. Laboratory sections are scheduled as needed.
- HMGT 404 Hospitality Facilities Design Project Credit 3**
 In this course the student completes a hospitality facilities design project. The project draws on previous work and includes facility design, market analysis, and budgetary control. Prerequisite: FMGT 301, HMGT 303 and HMGT 350.
- HMGT 405 Resort & Convention Management Credit 3**
 A study of resort and club planning, development, operation, and management, this course includes the planning and servicing of meetings, conventions, and other group business functions.
- HMGT 440 Financial Analysis for the Hospitality Industry Credit 3**
 This course provides a comprehensive study of financial analysis concepts and techniques necessary for managerial decision making. Ratio analysis, operations budgeting, cost approaches to pricing, capital budgeting and investment, managing working capital, and feasibility studies are emphasized. Prerequisite: HRM Department Major, FMGT 301, HMGT 340, Curriculum Area II (ECON 201 or 202), and Curriculum Area IV (Mathematics) requirements must be met.

HMG 470, 475 480 Hospitality Management Internship Credit 1-6

A fall (spring, summer) based course designed to permit the student to obtain an applied management internship in a specialized area of the hospitality industry, this course is structured to meet the needs of both the student and the hospitality operation offering the management internship. The enrolled student is assigned an HRM faculty member with whom he/she will work out a specific plan of study. Credit hours vary in accordance with the type and amount of work assigned. Prerequisites: FMGT 301, HMG 301, HMG 303, HMG 340, and written permission of HRM Department Chairman.

HMG 488 Hospitality Co-op Credit 3

A summer semester field-based course designed to permit the student to obtain applied experience in a specialized area of the hospitality industry, this course is structured to meet the needs of both the student and the hospitality operation offering the co-op. The enrolled student is assigned an HRM faculty member with whom he/she will work out a specific plan of study. Prerequisites: Written permission of HRM Department Chairman and BUAD 132, FMGT 101, FMGT 211, FMGT 212, HMG 101.

HMG 490 Hospitality Research I Credit 3

This first semester of a two-semester senior-level, project-based hospitality course requires departmental approval and close liaison with the course instructor. The students are assigned an approved project designed to synthesize the learning of other departmentally offered classes. Students write term papers, manage hospitality activities, perform accounting and financial analysis, and develop new operating procedures. Prerequisite: Senior level HRM major or written permission of HRM instructor.

HMG 491 Hospitality Research II Credit 3

This course is the second semester of the senior-level hospitality projects-based class (see HMG 490). Prerequisite: HMG 490 or written permission of HRM instructor.

HMG 497 Professional Development Credit 1

This course is an extension of HMG 100A, 200A, and 300A- Professional Development. In addition, each student is expected to organize, chair, and successfully accomplish the objectives of one Eta Rho Mu committee. Prerequisite: Senior-level HRM major or written permission of HRM Department Chairman.

HMG 498 Professional Development Credit 1

This course is an extension of HMG 100B, 200B, and 300B- Professional Development. In addition, each student is expected to organize, chair, and successfully accomplish the objectives of one Eta Rho Mu committee. Prerequisite: Senior-level HRM major or written permission of HRM Department Chairman.

HMG 499 Independent Study in Hotel and Restaurant Management Credit 1-3

The course is designed to permit the student to obtain directed study in a specialized area of the hospitality industry. The course is structured to meet the needs of the student. The enrolled student is assigned a faculty member with whom he will work out a specific plan of study. The course is similar to tutorials in structure. The student has the primary responsibility of completing the assignments. Credit hours may vary in accordance with the need and amount of work assigned. Prerequisite: Written permission of HRM Department Chairman, 3.0 GPA, and Junior/Senior status.

TRAVEL AND TOURISM MANAGEMENT

TMGT 130 Analysis of Travel and Tourism Credit 3

In this study of the components of the tourism industry and their interrelationships, the roles of the tour companies, travel agencies, government bureaus, tourism associations, and others who assemble, promote, and sell tourism services will be investigated.

TMGT 300 Tourism Transportation Systems Credit 3

An analysis of major land, sea, and air transportation systems supporting travel will be undertaken. Key components include airlines, cruise ships, buses, rail, and transportation packages.

TMGT 306 Eco & Cultural Tourism (Emerging Issue) Credit 3

This course is a study of purposeful travel to natural habitats to create an understanding of the cultural and natural history pertaining to the environment. The course emphasizes the philosophy of not altering the ecosystem, while producing economic benefits to local people and governments that encourage the preservation of the inherent resources of the environments locally and elsewhere. The cultural aspects emphasize African-American history and heritage.

TMGT 309 Tourism Economics

Credit 3

This course includes the application of economic principles and research methods to tourist and tourism industry behavior.

TMGT 420 Marketing of Tourism Destinations

Credit 3

This course includes procedures for analyzing the tourism and travel resources of a region and guidelines for formulating destination-oriented marketing goals and strategies.

TMGT 499 Independent Study

Credit 1-3

This course provides an opportunity for comprehensive review of the tourism planning and policy process used to develop or modify major travel destination areas.

DIRECTORY OF FACULTY

Binns, Karl V...... **Lecturer**
B.S., Morris Brown College; M.B.A. Morgan State University

Boger, Ernest P. **Chair & Associate Professor**
B.A., University of South Florida; M.B.A., University of North Texas; D.Mgt., Revans University

Callahan, Susan..... **Chef, Lecturer, Universities of Shady Grove**
B.S., Mount Saint Mary College

Dillon, William **Assistant Professor & Director**
B.S., Winthrop University; M.S., Southern Wesleyan University **PGA Golf Management Program**

Gormley, Richard **Assistant Professor**
B.S., University of Washington; M.B.A., Loyola University

Prosser, Christopher..... **Lecturer/PGM Internship Coordinator**
B.S. Campbell University, M.B.A., Benedictine University

Quinn, Katherine A **Assistant Professor**
B.S., University of Maryland College Park; M.B.A., University of Maryland College Park, PH.D, University of Maryland Eastern Shore

Streeter, Judith **Director, Universities of Shady Grove**
B.S., Loyola University; M.S. Mount Saint Mary College

Whittingham, Ralston G **Chef/Lecturer**
A.A., Culinary Institute of America; B.S. University of Maryland European Division; B.S. University of Maryland Eastern Shore

PGA GOLF MANAGEMENT

www.umes.edu/SBT/

William C. Dillon, Director

MISSION

The PGA Golf Management Program at the University of Maryland Eastern Shore prepares students for a career in the golf industry as members of the Professional Golfer's Association of America. In partnership with the PGA, UMES provides quality education to our students by assisting them in understanding the business and playing aspects of the game of golf.

OBJECTIVES

A degree in PGA Golf Management with the Professional Golfers' Association of America (PGA) accreditation represents a career field emphasis that enjoys specific synergies with University of Maryland Eastern Shore (UMES) academic and physical assets. Students who satisfactorily complete the major in PGA Golf Management will receive a Bachelor of Science (B.S.) degree and be prepared to:

1. Begin a career with a major golf resort or independent golf course operation.
2. Assume a supervisory role with a major golf course management company.
3. Represent leading golf equipment and golf fashion manufacturers and merchandisers.
4. Provide leadership in golf tournament and related special event planning including banquet or other food & beverage requirements.
5. Commence a professional golf teaching career.
6. Obtain membership within The Professional Golfers' Association of America.

DEGREES OFFERED

Bachelor of Science - PGA Golf Management

DEPARTMENTAL REQUIREMENTS

The admission of students to the undergraduate programs in the Department of Hotel and Restaurant Management is based upon the general admission requirements of the University. Students are admitted into the UMES PGA Golf Management Program on a competitive basis. Prospective students must first apply for entrance into UMES. Once admitted to the University, they then petition for admittance into the PGA Golf Management Program. A verification of a USGA handicap of 12 or less will be required. This must be verified by handicap card or equivalent. All PGA Golf Management majors will take 41 credit hours in General Education. The GNST 100 one-credit requirement will be met with PGMT 122-Orientation to Professional Golf Management. The EDHE 111 three-credit requirement will be satisfied when the student successfully passes the PGA Player Ability Test (PAT). The major core requirement of 74 credit hours for PGM majors includes courses that have a significant impact on the day-to-day professional operations and activities of golf courses, pro shops, club houses, related supportive services and golf product/image marketing. Six hours of supportive courses are required. Nine additional hours of major electives must be completed including HMGT 405-Resort, Club and Convention Management, and TMGT 130-Analysis of Travel & Tourism. 130 earned credit hours are required for the degree in PGA Golf Management.

Transfers are accepted on a case-by-case basis. Transfer students will be required to meet all the PGA Golf Management Program graduation requirements of the University and the PGA of America.

Handicap Verification includes:

1. A copy of a current USGA handicap index card indicating a handicap of 12 or less.
2. The Confirmation of Playing Ability Form filled out by a PGA Professional or High School Golf Coach.
3. Successful completion of the PGA's Playing Ability Test.

DESCRIPTION OF PROGRAM

The PGA Golf Management Program at the University of Maryland Eastern Shore prepares students for a career in the golf industry. The PGA Golf Management program attracts and educates bright, highly-motivated men and women to service all aspects of this developing industry while working toward membership in the Professional Golfer's Association of America. It is a comprehensive degree program that integrates all the curriculum requirements of a Hotel & Restaurant Management major with the knowledge base of the PGA Golf Management Program including sixteen month of structured internship experience and a Playing Ability Test (PAT).

PGA GOLF MANAGEMENT PROGRAM REQUIREMENTS

The goal of the PGA Golf Management Program at the University of Maryland Eastern Shore is to attract and educate bright, highly-motivated men and women to service all aspects of this developing industry and to produce PGA Members. It is a comprehensive degree program that integrates all the curriculum requirements of a Hotel & Restaurant Management major with the knowledge base of the PGA Golf Management Program including sixteen months of structured internship experience and a Playing Ability Test (PAT) which include:

1. Sixteen (16) months of full time cooperative/internship work at three different types of qualifying facilities (one of which must be a green grass facility).
2. The passing of the PGA's Playing Ability Test (met prior to attending the Level 3 Checkpoint).
3. Completion of all three levels of the PGA/PGM educational courses and checkpoints.
4. A PGA Golf Management student has 8 years to obtain PGA membership from the first day of registration into the PGA Golf Management Program.

PGA MEMBERSHIP REQUIREMENTS

1. Twelve (12) membership credits for college degree.
2. Sixteen (16) membership credits for completion of the PGA Golf Management Program.
3. Six (6) membership credits for completion of all membership requirements.
4. Two (2) membership credits for attending 2 national workshops hosted by the PGA Career Services Department.
- 5.

PROBATIONARY STANDARDS

Members of the UMES PGA Golf Management Program will be placed on PGA Golf Management Probation at the beginning of an academic semester due to any one of the following:

1. Cumulative grade point average less than 2.0
2. Failure to hand in appropriate work experience activities on due dates.
3. Failure to attend PDP as required.
4. Not attempting the PAT a minimum of one time per semester.
5. "No-Show" at a PAT
6. Not completing the required 9-holes per week in the PDP.
7. Missing two or more PGMSA meetings.
8. Outstanding Fees
9. Disruptive or disrespectful behavior.
10. Failed Checkpoints

DISMISSAL FROM THE PGA GOLF MANAGEMENT PROGRAM

The following reasons are grounds for dismissal from the PGA Golf Management Program:

1. Less than a 2.0 cumulative GPA for two consecutive semesters.
2. Probation within the PGM Program for two consecutive semesters.
3. Not participating in a PAT a minimum of two times per year until it has been passed.
4. Failure to pass the PGA PAT by Level 3 Checkpoint.
5. Committing a grievous act while on internship which results in termination.
6. Students who fail a checkpoint a total of three times.
7. Any behavior which is considered unethical by the PGA of America or to be a violation of the Code of Ethics as found in the PGA Constitution.

REQUIRED MAJOR COURSES

ENGL 305 FMGT 301 HMGY 305¹

¹Course will include the Business Planning Seminar and provide an introduction to merchandising and inventory control..

CURRICULUM GUIDE FOR PROFESSIONAL GOLF MANAGEMENT

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 101	3	ENGL 102	3
PGMT 122	3	FMGT 101	2
PGMT 210	3	FMGT 110	2
MATH 102	3	PGMT 230	3
PLSC 184	3	GEN ED CURR AREA III ¹	3
PLSC 185	<u>1</u>	GEN ED CURR AREA III ²	<u>1</u>
	16		14
SUMMER			
PGMT 170	1		

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 203	3	HMGT 220	4
TMGT 130	3	FMGT 212	3
PGMT 222	3	PGMT 330	3
FMGT 211	3	ENGL 305	3
HMGT 430	3	GEN ED CURR AREA I ³	<u>3</u>
Supportive Course	<u>3</u>		16
	18		
SUMMER			
PGMT 270	1		

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
PGMT 353	3	HMGT 350	3
HMGT 301	3	HMGT 303	3
ECON 201 or		HMGT 401	3
ECON 202	3	Supportive Course	3
HMGT 305	3	PGMT 355	<u>3</u>
HMGT 402	3		15
PGMT 322	<u>3</u>		
	18		
SUMMER			
PGMT 370	1		

SENIOR YEAR I

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
HMGT 405	3	FMGT 301	3
PGMT 430	3	PGMT 422	3
TGMT 306	3	GEN ED CURR AREA I ³	3
Major Elective	<u>3</u>	TGMT 306	3
	12	Playing Ability Test	<u>3</u>
			15

¹Student must select one science course.

²Student must select one science laboratory course.

³Student must select a course from either discipline to satisfy as an Elective.

SUMMER
PGMT 470

1

First Semester
PGMT 475

Credit
2

SENIOR YEAR II

Total Credit Hours: 130

COURSE DESCRIPTIONS FOR PROFESSIONAL GOLF MANAGEMENT

PGMT 100 Professional Development Credit 0

It is designed to provide monitoring and structure for the student's completion of the Level 1 Professional Golfers' Association (PGA), written exam and work experience requirement. The PGA provides a series of textbooks, work manuals, CD/DVDs, computer software, seminars and examination procedures. This course provides instructional supervision for this phase of the unique PGA qualification process. (This course is generally offered in Winter Session before taking Level I Checkpoint).

PGMT 122 Orientation to PGA Gold Management Credit 3

This course is the first in a series of four. This course follows the history of golf from Europe to the United States and will include the PGA Constitution, the history and structure of the PGA, and the PGA Code of Ethics. Topics in career enhancement will be covered and students will complete their initial cover letters and resumes that will be used throughout the program. A comprehensive orientation to the PGA Golf Management program and process will also be provided.

PGMT 170 Professional Golf Management Internship I Credit 1

A twelve-week supervised and paid internship at a PGA-approved golf facility is the centerpiece of this "hands-on" experience. This is the first of three internships, normally offered during summer months. Duties and responsibilities are approved by the faculty member and supervised by the PGA professional at the site. Evaluation is conducted by the faculty member and the on-site professional. Written reports and evaluations are required at the completion of each phase of instruction. The actual site location and thereby placement is contingent on the availability of PGA-sanctioned courses in and around areas where students are able to acquire housing. PGM Faculty, the student and the PGA collaborate on the final placement decision. A minimum cumulative GPA of 2.0 is required for each internship. PGMT 170 internships will emphasize the following skill sets: golf car fleet management, customer relations, rules of golf, tournament operations, golf club design and repair, career enhancement, introduction to teaching, and player development. Prerequisite: PGMT 122.

PGMT 200 Professional Development Credit 0

It is designed to provide monitoring and structure for the student's completion of the Level 2 Professional Golfers' Association (PGA), written exam and work experience requirement. The PGA provides a series of textbooks, work manuals, CD/DVDs, computer software, seminars and examination procedures. This course provides instructional supervision for this phase of the unique PGA qualification process. (This course is generally offered in Winter Session before taking Level 2 Checkpoint).

PGMT 210 Tournament Operations, Rules of Golf, and Golf Car Fleet Management Credit 3

The centerpiece of this three-part course is USGA *The Rules of Golf*. In addition to basic understanding of the rules and their history, students learn how rules are made and changed. The make-up, format and layout of the Rulebook are thoroughly explored in order to support the instant location of appropriate rules for all playing and etiquette situations. The second course segment, Golf Car, Fleet Management, covers all aspects of fleet planning and management. Students learn the importance of fleet operations for player comfort and convenience as well as for facility profitability. The third segment, addresses tournament operations which consume a major part of the Professional Golf Manager's schedule in most working environments. Topics for this segment include: roles and responsibilities in tournament operations; tournament development; scoreboard layout and design; budgets; organization of staff and volunteers; tournament promotion and evaluation; and the use of computer software.

PGMT 220 Golf Club Design and Repair Credit 3

Students are presented with the technical content required to custom fit and merchandise equipment. This course incorporates a hands-on-training component which produces a work product output of one or more custom-fitted clubs for the student. Prerequisite: PGM Major

PGMT 222 Professional Golf Management I Credit 3

This course is the second in a series of four. Students are presented with the technical content required to custom fit golf clubs to the customer. In addition, fundamentals of customer relations and business planning will be introduced. Basic golf club repair will be covered in this course including re-gripping for size, re-shafting and measuring swing and overall weight of golf clubs.

PGMT 230 Introduction to Teaching Principles Credit 3

It is important to be able to articulate the reasons for player development programs and their relationship to the golf professional's job. Course material will include an introduction to fundamentals of golf science, teaching terminology, swing fundamentals, and teaching methodology. In addition, an introduction to analysis of the swing will cover basic equipment selection and club fitting that will be a foundation for golf club design and repair. This course is required during the freshman or sophomore year. Prerequisites: PGMT 122, PGMT 210.

PGMT 270 Professional Golf Management Internship II Credit 1
A twelve-week supervised and paid internship at a PGA-approved golf facility is the centerpiece of this “hands-on” experience. This is the second of three internships, normally offered during summer months. Duties and responsibilities are approved by the faculty member and supervised by the PGA professional at the site. Evaluation is conducted by the faculty member and the on-site professional. Written reports and evaluations are required at the completion of each phase of instruction. The actual site location and thereby placement is contingent on the availability of PGA-sanctioned courses in and around areas where students are able to acquire housing. PGM Faculty, the student and the PGA collaborate on the final placement decision. A minimum cumulative GPA of 2.0 is required for each internship. PGMT 270 internships will emphasize the following skill sets: customer relations, business planning and operations, analysis of the swing, and golf club design and repair. Prerequisite: PGMT 170.

PGMT 322 Professional Golf Management II Credit 3
This course, the third in a series of four, provides an opportunity to practice basic customer relations concepts, interaction skills and interpersonal skills. These skills will be extended by providing an introduction of extending these skill sets by supervising the personnel at a golf facility and understanding the business of golf. Prerequisites: PGMT 222.

PGMT 330 Intermediate Teaching Credit 3
In this class, students are given an opportunity to learn principles of golf class management, as well as actual scientific swing analysis and club fitting. Additionally, a requirement to shadow a teaching professional and then to personally deliver instruction to an actual class reinforces the process. As preparation for the PGM philosophy & swing seminar, students are guided in developing an overall philosophy and approach to teaching, including short game and full swing. Recognition of individual success factors, including fitness, is emphasized. Prerequisites: PGMT 220.

PGMT 350 Golf Shop Operations Credit 3
This course is an in-depth study of the business of golf and all aspects of managing the business of golf to include planning, organizing, staffing, directing and controlling. Marketing aspects of merchandising and inventory control are highlighted. Students learn how to develop, retain and lead staff within a high performance work environment. Other topics will include open-to-buy plans, merchandise assortment plans, vendor relations, inventory management and merchandise display and promotion. Prerequisite: PGMT 122 and HMG 305.

PGMT 353 Agronomy and Turf Grass Management Credit 3
This is an introduction to turf grasses and maintenance procedures necessary for meeting modern golf course playability standards. Accordingly, students learn how to identify, select, establish and manage turf for specific recreational and competitive use in golf course settings. Technical knowledge obtained will also have applications for commercial and residential use. Emphasis is placed during the class on communicating with golf course superintendents and the customers about regular practices and protocol. Specific topics include basic plant physiology, Integrated Pest Management strategy, turf grass identification, fertility requirements, cultural practices, as well as environmental concerns. Campus facilities will be used to support a minimum 4-week laboratory experience. Human resource, financial, and governmental issues are also discussed.

PGMT 355 Merchandising and Inventory Credit 3
This course provides the important skills and tasks required to run a successful merchandising operation within a PGA approved golf shop. Emphasis will be placed on particular customer needs and wants within individual golf shop environment. Creative and cost effective inventory management to maximize financial health of the business will be stressed. Understanding of the individual golf shop manager’s role as a valued added consultant will be highlighted as a competitive advantage as discounters and management companies continue to proliferate. Prerequisites: HMG 305.

PGMT 370 Professional Golf Management Internship III Credit 1
This twelve-week golf-facility-based exercise is number three in a coordinated series of three supervised internships. It is designed to provide a broad base of exposure to all aspects of golf management. Specific duties and assignments are approved on site by the responsible faculty member and the PGA Professional. The student will complete assigned duties and responsibilities as approved by the faculty member and supervised by the PGA professional at the site. Written reports and evaluations are required at the completion of each phase of instruction. A minimum cumulative GPA of 2.0 is required for each internship. Site locations are determined by the availability of PGA-approved sites and student preference, with faculty member approval. PGMT 370 internships will emphasize the skill sets of philosophy and swing concepts, merchandising and inventory, supervising and delegating, and food and beverage. Prerequisite: PGMT 270.

PGMT 422 Professional Golf Management III

Credit 3

As a true manager, PGM graduates will be required to motivate employees and associates for sustained peak performance. Accordingly, this course focuses on the proven behavioral science based approaches of delegation and supervision to structure a work environment that encourages maximum team productivity. Emphasis is placed on resolving difficult situations and interpersonal problem solving. This course is the fourth in a series of four. Prerequisite: PGMT 322

PGMT 430 Advanced Teaching Methods

Credit 3

This class begins with ball flight laws, preferences and principles. Students are given the opportunity to learn scientific laws and principles particularly relating to cause and effect with application to the model golf swing which are explored and mastered. Professional terminology and phraseology for effectively presenting golf instruction is introduced. Private and group lesson techniques plus the importance of directed practice, drills and use of teaching aids especially technology bases are thoroughly covered. Lab requirement: Students must teach a five-series lesson program to an assigned student. Prerequisites: PGMT 230 and PGMT 330.

PGMT470 Professional Golf Management Co-Op I

Credit 1

PGMT 470 is an intense extended and supervised 7-month paid work experience at a PGA certified site. The Co-Op is only available after all academic requirements are met. It is the final work experience incorporating academic learning with the everyday practical application of the golf business. The Co-op will include a culmination of all experiences to date. Emphasis will be on preparing student's professional portfolios and preparing for the Level III Challenge/Response preparation. Graduation requirements (except Level 3) must be met prior to registering for PGMT 470.

PGMT 475 Professional Golf Management Co-op II

Credit 2

PGMT 475 is an intense extended and supervised 4-month paid work experience at the PGA certified site. The Co-op is only available after all academic requirements are met. It is the final work experience incorporating academic learning with the everyday practical application of the golf business. The Co-op will include a culmination of all experiences to date. Emphasis will be on preparing student's professional portfolios and preparing for the Level III Challenge/Response preparation. Graduation requirements must be met prior to registering for PGMT 475, except completion of Level III.

DIRECTORY OF FACULTY

Dillon, William **Assistant Professor & Director**
B.S., Winthrop University, M.S., Southern Wesleyan University

Prosser, Christopher **Lecturer/Internship Coordinator**
B.S., Campbell University, M.B.A., Benedictine University

DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE

<http://www.umes.edu/SBT>

Dr. Gurdeep S. Hura, Chairperson

MISSION

The Department of Mathematics and Computer Science serves the university community with service courses in Mathematics and in Computer Sciences for all university undergraduates.

Computer Resources: The Department has a Sun Lab consisting of 21 Sun Blade 150 workstations and Sun V1280 server and two Computer Laboratories consisting of high-end Pentium computers. Users have access to a wide variety of Windows and UNIX Microcomputers, plus special purpose facilities for graphics. These computer facilities and several other campus wide computer facilities are available for all students.

Students in both the undergraduate and graduate Computer Science courses benefit from the wide variety of computing resources made available at the University of Maryland Eastern Shore as a member of the University System of Maryland. Both Unix-based and Windows-based systems provide a rich computing environment both for majors and for students in service courses.

Library facilities: These facilities are extensive and are supplemented each year. Opportunities exist for student participation in faculty research projects. While computer laboratory facilities are open and available all day and evening, most graduate courses are scheduled in the early evening so that those working during the day can participate.

The large number of international students both in the graduate and undergraduate major programs of the Department help present all students in our programs with experience in working with students that represent a wide diversity of educational and cultural backgrounds. The instructional work of the twenty-two full time faculty members in the Department is supplemented each year by adjunct faculty who apply their experiences to the teaching of introductory Mathematics courses.

OBJECTIVES

The objectives for all programs in Mathematics and Computer Science are as follows:

1. Students will have necessary knowledge and skills to pursue a career in industry and/ or continue their education in a graduate program.
2. Students will have necessary knowledge and skills (both theoretical and practical) that enable them to analyze and solve real life problems and to adapt to a rapidly evolving technology environment.
3. Students will have necessary knowledge and skills in basic qualitative, algorithmic, and mathematical modeling to support clear and critical thinking.
4. Students will have general knowledge and experience in design, implementation and application of software systems applied to real life problems.
5. Students will have general knowledge and experience using knowledge of statistics and actuarial science in modeling applications of software systems to real life problems.
6. Faculty will remain current in their fields of instruction and research.
7. Faculty will spend adequate time in pursuing their research and professional development.
8. Faculty will develop skills for counseling students, colleagues and community members in the planning of their academic career and participate actively in recruitment and retention.
9. The Department will maintain up-to-date curricula that reflect current trends and best practices.
10. Students will have opportunities to participate in professional student organizations and pre-professional employment.
11. All qualified students in our service community recognize our Mathematics and Computer Science programs as competitive and attractive.

12. The Department maintains and retains contacts, offers support and establishes strong networked connections with its alumni.

DEGREE OFFERED

Bachelor of Science - Mathematics (Non-Teaching)
Bachelor of Science - Mathematics Education
Bachelor of Science - Computer Science toward Business
Bachelor of Science - Computer Science toward Science
Master of Science – Applied Computer Science¹

GENERAL PROGRAM REQUIREMENTS

Prospective freshmen students must have earned a high school diploma from an accredited school or the GED and must have successfully completed the following: four years of English; three years of Social Science/ History; two years of laboratory based science; three years of mathematics, including Algebra I, II and Geometry; and, two years of a foreign language.

DEPARTMENTAL REQUIREMENTS

Mathematics Non-Teaching – The content of this program covers a broad spectrum of pure and applied mathematics. Courses are offered in a variety of topics including Calculus, Real and Complex Analysis, Number Theory, Topology, Linear Algebra, Modern Algebra, Statistics, and Probability. It is designed for persons who wish to pursue careers in statistics, actuarial science, mathematical modeling, and graduate study in mathematics or statistics. It is advisable that students take 300 and 400 upper level computer science, natural sciences, engineering and technology courses relevant to the field of interest. The program requires 120 credit hours with a grade of “C” or better in required major and other mathematics courses.

Mathematics Education - The content of this program is similar to that of Mathematics Non-teaching. It is supplemented by professional education coursework. This program is designed for persons who wish to pursue careers in secondary mathematics education. The program requires 129 credit hours with a grade of “C” or better in the required major courses and required professional education courses. Students should consult the Department of Education about the minimum GPA requirement for education

Computer Science - The content of this degree program is designed to train students in the theory and application of computer science and the application in a variety of disciplines. Courses are offered in a variety of topics including programming languages, data structures, computer organization and architecture, software engineering, operating systems, and other computer science topics. The Computer Science program is ideal for persons who wish to pursue their careers in government agencies or private corporations or graduate study in computer science-related multi-disciplines. It is advisable that students take 300 and 400 upper level computer science, natural sciences, engineering and technology courses relevant to the field of interest. Completion of the B.S. degree in Computer Science requires 120 credits, with a grade of “C” or better in required major and advanced computer science courses and courses in mathematics.

Computer Science with Business Focus - The content of this program is designed to train students in the theory and application of computer science and its application in business disciplines. Courses include Software Engineering, Operations Research, Computer Organization, Data Structures and Algorithms, Theory of Computation, Programming Languages, Databases and Operating Systems. Courses in accounting and other business areas augment the Computer Science curriculum. This program is designed for persons who wish to pursue careers in information systems, operations research, and database management. It is advisable that students take 300 and 400 upper level computer science, natural sciences, engineering and technology courses relevant to the field of interest. The program requires 120 credit hours, with a grade of “C” or better in the common required courses, the required major and advanced courses in the electives and in the mathematics courses.

CAREER OPPORTUNITIES

Career opportunities for each degree program is identified within the specific degree course information.

¹Please consult the UMES Graduate Catalog for additional information.

MATHEMATICS NON-TEACHING

DEPARTMENTAL REQUIREMENTS

This Program covers a broad spectrum of pure and applied mathematics. Courses are offered in a variety of topics including Calculus, Real and Complex Analysis, Number Theory, Topology, Linear Algebra, Modern Algebra, Statistics, and Probability. It is designed for persons who wish to pursue careers in statistics, actuarial science, mathematical modeling, and graduate study in mathematics or statistics. It is advisable that students take 300 and 400 upper level computer science, natural sciences, engineering and technology courses relevant to the field of interest. The program requires 120 credit hours with a grade of "C" or better in required major and other mathematics courses.

REQUIRED MAJOR COURSES

MATH 211	MATH 309	MATH 411	CSDP 221
MATH 212	MATH 310	MATH 412	CSDP 222
MATH 232	MATH 321	MATH 442	CSDP 341
	MATH 322	MATH 443	
	MATH 342	MATH 490	

Mathematics¹

MATH 301	MATH 413 ²	MATH 498
MATH 302	MATH 440	MATH 499
	MATH 444	

Applied Mathematics¹

MATH 302	MATH 410	MATH 498
MATH 350 ²	MATH 442	MATH 499
	MATH 455	

CAREER OPPORTUNITIES

A B.S. degree in Mathematics Non-Teaching will offer opportunities in academia, research organizations, public and private industry and government.

¹Other 300 and 400 level courses in Mathematics and Computer Science may be substituted for these electives.

CURRICULUM GUIDE FOR MATHEMATICS NON-TEACHING

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
MATH 112	4	MATH 211	4
ENGL 101	3	ENGL 102	3
EXSC 111 ¹	3	GEN ED CURR AREA III ²	3
GNST 100	1	GEN ED CURR AREA III ³	1
GEN ED CURR AREA III ²	3	CSDP 221	<u>4</u>
GEN ED CURR AREA III ³	<u>1</u>		15
	15		

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
MATH 212	4	MATH 321	4
ENGL 203	3	ENGL 305	3
CSDP 222	4	FREN 102 or	
FREN 101 or		SPAN 102	3
SPAN 101	3	GEN ED CURR AREA II ⁴	3
MATH 322	<u>3</u>	MATH 232	<u>3</u>
	17		16

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
MATH 342	3	MATH Elective	3
PHYS 181H	3	PHYS 182H	3
PHYS 183H	1	PHYS 184H	1
MATH 309	3	MATH 411	3
GEN ED CURR AREA II ⁵	<u>3</u>	MATH 310	3
	13	Free Elective	<u>3</u>
			16

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
MATH 443	3	MATH 442	3
MATH 412	3	MATH 490	1
CSDP 341	3	MATH Elective	3
MATH Elective	3	Free Elective	3
Free Elective	<u>3</u>	Free Elective	<u>3</u>
	15		13

Total Credits Hours: 120

¹Course cannot be repeated for credit.

²Student must select one science course from GEN ED CURR AREA III.

³Student must select one science lab course from GEN ED CURR AREA III.

⁴Student must select from GEN ED CURR AREA II:A.

⁵Student must select from GEN ED CURR AREA II:B.

MATHEMATICS EDUCATION

The content of this program is similar to that of Mathematics Non-teaching. It is supplemented by professional education coursework. This program is designed for persons who wish to pursue careers in secondary mathematics education.

DEPARTMENTAL REQUIREMENTS

The program requires 129 credit hours with a grade of "C" or better in the required major courses and required professional education courses. Students should consult the Department of Education about the minimum GPA requirement for education majors.

CAREER OPPORTUNITIES

A B.S. degree in Mathematics Education provides entry level employment in Middle School/High School teaching, and curriculum development and supervision roles in public school systems.

REQUIRED MAJOR COURSES

MATH 211	MATH 301	MATH 411	CSDP 221
MATH 212	MATH 302		CSDP 222
MATH 232	MATH 304		
	MATH 309		
	MATH 310		
	MATH 321		
	MATH 322		
	MATH 342		

REQUIRED PROFESSIONAL EDUCATION COURSES

EDCI 200	EDCI 400	PSYC 307
EDCI 201 ¹	EDCI 406	EDSP 428
EDCI 311	EDCI 409	
	EDCI 410	
	EDCI 425C	
	EDCI 480	
	EDCI 490	

¹Course does not count toward graduation.

CURRICULUM GUIDE FOR MATHEMATICS EDUCATION

FRESHMAN

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
MATH 112	4	MATH 211	4
ENGL 101	3	ENGL 102	3
FREN 101 or		FREN 102 or	
SPAN 101	3	SPAN 102	3
GEN ED CURR AREA II ¹	3	CSDP 221	4
EDCI 100	1	GEN ED CURR AREA II ¹	<u>3</u>
EXSC 111 ²	<u>3</u>		17
	17		

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
MATH 212	4	MATH 232	3
ENGL 203	3	ENGL 305 or	
PHYS181H	3	ENGL 310	3
PHYS183H	1	CSDP 222	4
EDCI 200	3	PHYS182H	3
EDCI 201 ³	1	PHYS184H	1
MATH 322	<u>3</u>	GEN ED CURR AREA II ¹	<u>3</u>
	17		17

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
MATH 342	3	EDCI 406	3
MATH 321	4	EDCI 409	3
EDCI 311	3	MATH 302	3
MATH 309	3	MATH 411	3
PYSC 307	<u>3</u>	MATH 310	<u>3</u>
	16		15

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
MATH 301	3	EDCI 400	3
MATH 304	3	EDCI 480	6
EDCI 410	3	EDCI 490	<u>6</u>
EDCI 425C	3		15
EDSP 428	<u>3</u>		
	15		

Total Credits Hours: 129

¹Student must select course from GEN ED CURR AREA II:A or B.

²EXSC 111 cannot be repeated for credit.

³Course does not count toward graduation.

COMPUTER SCIENCE

The content of this degree program is designed to train students in the theory and application of computer science and the application in a variety of disciplines. Courses are offered in a variety of topics including programming languages, data structures, computer organization and architecture, software engineering, operating systems, and other computer science topics. The Computer Science program is ideal for persons who wish to pursue their careers in government agencies or private corporations or graduate study in computer science-related multi-disciplines. It is advisable that students take 300 and 400 upper level computer science, natural sciences, engineering and technology courses relevant to the field of interest.

DEPARTMENTAL REQUIREMENTS

Completion of the B.S. degree in Computer Science requires 120 credits, with a grade of "C" or better in required major and advanced computer science courses and courses in mathematics.

COMMON REQUIRED COURSES

BIOL 111 ¹	or	CHEM 111 ¹	or	PHYS 181H or above
BIOL 113 ¹	or	CHEM 113 ¹		
BIOL 112 ¹	or	CHEM 112 ¹		
BIOL 114 ¹	or	CHEM 114 ¹		

REQUIRED BROADING COURSES²

See Footnote 2

REQUIRED MAJOR COURSES

COMPUTER SCIENCE

CSDP 221	CSDP 301	CSDP 390	CSDP 401
CSDP 222	CSDP 305	CSDP 398	CSDP 403
CSDP 250	CSDP 332	CSDP 399	CSDP 404
	CSDP 351		CSDP 450
			CSDP 490

ADVANCED COMPUTER SCIENCE³

CSDP 309	CSDP 402	CSDP 442	CSDP 498
CSDP 331	CSDP 405		CSDP 499
CSDP 341	CSDP 406		
	CSDP 407		

MATHEMATICS

MATH 211	MATH 309	MATH 323	MATH 360
MATH 232			

CAREER OPPORTUNITIES

Career opportunities in computer science include: Software Engineering, Systems Analysts, Computer Programming, Project Management, Government, Public, and Private Organizations, Academia, and Research Organizations.

¹To satisfy the Science core requirement, students must select one additional science course in addition to General Education Requirements offered in the Biology or Chemistry 111 level or above or the Physics 181H level or above.

²To satisfy the broadening course requirement, students must select two additional courses in addition to General Education Requirements offered in the Arts, Humanities, Social or Behavior Science.

³Student must select one course as an elective.

CURRICULUM GUIDE FOR COMPUTER SCIENCE

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 111	3	BIOL 112	3
BIOL 113 or	1	BIOL 114 or	1
CHEM 111	3	CHEM 112	3
CHEM 113	1	CHEM 114	1
ENGL 101	3	ENGL 102	3
CSDP 100	1	CSDP 221	4
EXSC 111 ¹	3	MATH 112	<u>4</u>
GEN ED CURR AREA III	3		15
FREE Elective	<u>1</u>		
	15		

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 203	3	CSDP 250	3
MATH 211	4	BIOL or CHEM or PHYS ²	4
CSDP222	4	MATH 323	3
FREN 101 or		MATH 309	3
SPAN 101	<u>3</u>	FREN 102 or	
	14	SPAN 102	<u>3</u>
			16

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CSDP 301	3	CSDP 305	3
CSDP 398	3	CSDP 399	3
CSDP 403	3	CSDP 390	3
MATH 232	3	MATH 360	3
ENGL 305	<u>3</u>	CSDP 332	<u>3</u>
	15		15

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CSDP 404	3	CSDP 401	3
CSDP 450	3	CSDP Elective	3
CSDP 351	3	CSDP 490	3
GEN ED CURR AREA II	3	GEN ED CURR AREA ³	3
GEN ED CURR AREA ³	<u>3</u>	FREE Elective	<u>3</u>
	15		15

Total Credits Hour: 120

¹EXSC 111 cannot be repeated for credit.

²Student must take one course in addition to GEN ED CURR AREA III.

³Student must take two courses in addition to GEN ED CURR AREA II.

COMPUTER SCIENCE WITH BUSINESS FOCUS

The content of this program is designed to train students in the theory and application of computer science and its application in business disciplines. Courses include Software Engineering, Operations Research, Computer Organization, Data Structures and Algorithms, Theory of Computation, Programming Languages, Databases and Operating Systems. Courses in accounting and other business areas augment the Computer Science curriculum. This program is designed for persons who wish to pursue careers in information systems, operations research, and database management. It is advisable that students take 300 and 400 upper level computer science, natural sciences, engineering and technology courses relevant to the field of interest.

DEPARTMENTAL REQUIREMENTS

The program requires 120 credit hours, with a grade of "C" or better in the common required courses, the required major and advanced courses in the electives and in the mathematics courses.

COMMON REQUIRED COURSES

<u>ECONOMICS AND BUSINESS</u> ¹			
ACCT 201	ACCT 202	ECON 201	ECON 202
<u>BUSINESS ELECTIVE</u> ²			
BUAD 302	FINA 340	MKTG 408	
<u>ADVANCED BUSINESS ELECTIVE</u> ³			
BUAD 303	FINA 341	MKTG 310	MKTG 401
BUAD 412	FINA 440	MKTG 312	MKTG 404
BUAD 420	FINA 441	MKTG 314	
		MKTG 315	

REQUIRED BROADENING COURSES⁴

REQUIRED MAJOR COURSES

<u>INFORMATION SYSTEMS</u>			
CSDP 221	CSDP 240	CSDP 301	CSDP 331
CSDP 222	CSDP 241	CSDP 305	CSDP 332
	CSDP 250		
<u>ADVANCED</u>			
CSDP 309	CSDP 402	CSDP 405	CSDP 490
CSDP 390	CSDP 404		
<u>ELECTIVES</u> ⁵			
CSDP 398	CSDP 406	CSDP 498	MATH 350
	CSDP 407	CSDP 499	
<u>MATHEMATICS</u>			
MATH 210	MATH 232	MATH 323	

¹Student must select one course.

²Student must select one course.

³Student must select one course.

⁴To satisfy the broadening course requirement, students must select two additional courses in addition to General Education Requirements offered in the Arts, Humanities, Social or Behavior Science.

⁵Student must select one course.

CURRICULUM GUIDE FOR COMPUTER SCIENCE WITH BUSINESS FOCUS

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 111	3	BIOL 112	3
BIOL 113 or	1	BIOL 114 or	1
CHEM 111	3	CHEM 112	3
CHEM 113	1	CHEM 114	1
ENGL 101	3	ENGL 102	3
CSDP 100	1	CSDP 221	4
EXSC 111 ¹	3	MATH 112	<u>4</u>
SOCI 101	<u>3</u>		15
	14		

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ACCT 201	3	PYSC 200	3
ECON 201	3	ACCT 202	3
ENGL 203	3	ECON 202	3
CSDP 222	4	FREN 102 or	
FREN 101 or		SPAN 102	3
SPAN 101	<u>3</u>	CSDP 250	<u>3</u>
	16		15

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>First Semester</i>	<i>Credit</i>
MATH 210	3	CSDP 241	3
CSDP 240	3	CSDP 305	3
MATH 232	3	CSDP 332	3
Business Elective ²	3	CSDP 390	3
ENGL 305	<u>3</u>	MATH 323	<u>3</u>
	15		15

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CSDP 301	3	Advanced Business Elective ³	3
CSDP 404	3	CSDP 490	3
CSDP 405	3	Advanced Information System ⁴	3
CSDP 402	3	CSDP 331	3
GEN ED CURR AREA ⁵	<u>3</u>	GEN ED CURR AREA ⁵	<u>3</u>
	14		15

Total Credits Hours 120

¹EXSC 111 cannot be repeated for credit.

²Student must select Business Elective.

³Student must select an Advanced Business Elective

⁴Student must select an Advanced Information Systems Elective

⁵Student must take two courses in addition to GEN ED CURR AREA II.

MINOR PROGRAMS

The Department offers a minor in both Computer Science and in Mathematics as well as a graduate program leading toward an M.S Degree in Applied Computer Science¹ (unique in the state of Maryland).

A grade of “C” or better is required in the courses taken to satisfy the minor. In accordance with the particular guidelines given below, specific minor programs for individual students will be set up and approved by the Chair of the Department, or a designee, in consultation with the student involved. Students in a program (like computer science directed toward science or business) that requires Calculus I or the first computer course cannot do any of our minors since all these specifically require MATH 112 or CSDP 221.

For double majors, students are allowed to substitute other upper-level courses, approved by the chair, for such duplicate required courses.

A student may Minor in Computer Science by taking the following courses of twenty-three (23) credits: CSDP 222; CSDP 250; CSDP 332; and two 3-credit 400 level computer science courses.

A student may minor in Computer Science with business focus by taking the following courses of nineteen (19) credits: CSDP 221; CSDP 222; CSDP 250; CSDP 332; CSDP 331; CSDP 404; and CSDP 407.

A student can minor in Mathematics by taking 21 credits in Mathematics including MATH 112, MATH 211 and at least three 3-credit 300 and 400 level courses in mathematics. A 3-credit 300 or 400 level computer science course may be used in place of one of the 300 or 400 level mathematics courses.

COURSE DESCRIPTIONS FOR COMPUTER SCIENCE

CSDP 100 Computer Science Orientation

Credit 1

This course is a survey of Computer Science with special emphasis on topics of importance to computer scientists. It also provides an exploration of skills required and resources available to students majoring Computer Science. Topics include nature of problems, hardware, human factors, security, social, ethical and legal issues, familiarization of various aspects of computing and networks. This course must be taken by all Computer Science major and minor students. Prerequisite by topic: Students are expected to have declared computer science as their major or intended to do so. No prerequisite is needed.

CSDP 120 Introduction to Computing

Credit 3

This course is for students new to Computer Science. The goal is to introduce students to different general computing aspects of the computer systems. Course topics include overview of the history of computing machines, computing codes and ethics, computing algorithms, programming languages, and mathematical software packages. **Prerequisite:** High school mathematics. **CSDP 120 does not satisfy the General Education Area III Requirement.**

CSDP 121¹ Microcomputer Applications

Credit 3

This course is designed for non-technical majors in different applications of modern computing systems. The course surveys computing hardware and software systems and introduces students to the present state-of-the-art word processing, spreadsheet, and database software. Applications to other disciplines, such as medicine, administration, accounting, social sciences and humanities, will be considered. Prerequisite: High School Mathematics. CSDP 121 does not satisfy the General Education Area III Requirement.

CSDP 150¹ Office Automation Workshop

Credit 1

This course is an introduction to current progress in word processing and/or office automation. The course involves considerable hands-on work with current equipment. This course may be repeated (with different topics) for a maximum of six credits. Prerequisite: Variable, depending on topic selected. CSDP 150 does NOT satisfy the General Education Area III Requirement.

CSDP 151¹ Special Software Workshop

Credit 1

This course is an intensive introduction to various commercially available software packages, such as spreadsheet and database packages. The course involves considerable hands-on work with current software tools. The course may be repeated for a maximum of six credits. Prerequisite: Variable, depending on the topic selected. CSDP 151 does NOT satisfy the General Education Area III Requirement.

CSDP 152¹ Programming Techniques Workshop

Credit 1

This course is an intensive introduction to special programming techniques, e.g., handling disk files on computers and writing computer-assisted instruction materials. This course involves considerable hands-on experience in the area chosen. The course may be repeated (with different topics) for a maximum of six credits. Prerequisite: Variable, depending on the topic selected. CSDP 152 does NOT satisfy the General Education Area III Requirement.

CSDP 153¹ Programming Language Workshop

Credit 1

This course is an intensive introduction to special implementations of programming languages, e.g., hypertext and operating systems languages. The course involves considerable hands-on experience in the area chosen. This course may be repeated (with different topics) for a maximum of six credits. Prerequisite: Variable, depending on the topic selected. CSDP 153 does NOT satisfy the General Education Area III Requirement.

CSDP 154¹ Computer Hardware Workshop

Credit 1

This course is an intensive introduction to new hardware and hardware methodology in special areas, e.g., microcomputer interaction with analogue devices, small-system data communications, etc. The course involves considerable hands-on experience in the area chosen. The course may be repeated for a maximum of six credits. Prerequisite: Variable, depending on the topic selected. CSDP 154 does NOT satisfy the General Education Area III Requirement.

¹Course does not satisfy the GEN ED CURR AREA III Requirement.

- CSDP 331 Data Warehousing and Data Mining Credit 3**
This course introduces students to concepts and techniques of data mining and data warehousing. Concepts, principles, architecture, design, implementation, application of data warehousing and data mining are taught. The course also introduces several systems for data warehousing and/or data mining. Prerequisite: CSDP 222.
- CSDP 332 Internet Programming Credit 3**
This course introduces students to various aspects of internet programming and scripting languages. Topics include object-oriented programming, general information on Internet and World Wide Web, active server pages, HTML, DHTML, XML, JavaScript, VBScript, CSS, and databases. Prerequisite: CSDP 222.
- CSDP 341 Numerical Analysis Credit 3**
This course is designed to introduce fundamental aspects of numerical analysis including the basic concepts, representation of numbers, error analysis, and iterative methods. Additional topics include solution techniques for non-linear equations, interpolation and approximation, numerical differentiation and integration, and their computer applications. Prerequisites: CSDP 222 and MATH 211.
- CSDP 351 Computer Architecture Credit 3**
This course covers how computer hardware works, logical aspects of system implementation as seen by the programmer and what considerations go into the design of a computer and components. Topics include processor design, instruction set design and addressing; control structures and microprogramming; memory management, caches, and memory hierarchies; interrupts and I/O structures; and advanced topics. Prerequisite: CSDP 301.
- CSDP 390 Social, ethical and legal issues in Computer Science Credit 3**
The growth in computer usage and the number of networks in the information age of 21st century have placed responsibilities on computer scientists to properly use both computers and networks. Issues such as professional, social, ethical and legal responsibilities, intellectual property, piracy, hacking, Internet crimes, viruses, privacy, crime and civil liberties are addressed. **Prerequisite:** Students must have a junior status and have a basic understanding and awareness of computer programming.
- CSDP 398 Computer and Language Topics A Credit 3**
This is a reading/research course recommended for all computer science majors. The course allows the student to gain experience in new or otherwise unavailable programming languages (e.g., JAVA, C, LISP, ADA, PROLOG). At least one section in JAVA, to satisfy major requirements will be given each year. This course may be repeated (with different topics) for a maximum of 12 credits. Prerequisite: CSDP 222
- CSDP 399 Computer and Language Topics B Credit 3**
This is a reading/research course recommended for all computer science majors. This course allows the student gain experience in new or otherwise unavailable programming languages (e.g., UNIX, PROLOG, XML, C#). At least one section in UNIX to satisfy major requirements will be given each year. This course may be repeated (with different topics) for a maximum of 12 credits. Prerequisite: CSDP 222.
- CSDP 401 Operating Systems Credit 3**
This course is an introduction to the fundamentals of operating systems. Topics may include interrupts and recovery, inter-process communication and synchronization, process scheduling, deadlock, memory management, virtual memory file systems, scheduling, and distributed systems. Formal principles are illustrated with the examples and case studies of one or more contemporary operating systems. Prerequisite: CSDP 250 and CSDP 301.
- CSDP 402 Computer Networks Credit 3**
This course is designed to introduce students to the basic concepts of computer network communication. Topics may include OSI model and computer network protocols (with emphasis on the TCP/IP suite of protocols), data signals and data encoding, transmission media and multiplexing, network architectures (with emphasis on the Ethernet and its various IEEE models), internetworking devices, IP addressing, and sub-netting. Prerequisite: CSDP 250.
- CSDP 403 Computer Language Theory Credit 3**
This course examines the principles of programming languages. Topics include criteria, formal specifications of syntax, lexical analysis, declarations binding, allocation data and control structures, imperative programming, and functional programming. Prerequisite: CSDP 301 and MATH 323.

- CSDP 404 Database Management Systems Credit 3**
 This course covers database management and the different data models currently used to structure the logical view of databases. It provides an introduction to concepts and design principles used in database management systems, including entity-relationship data models, physical and logical database design, relational databases, query language, transaction management, reliability, and security, and considers the social and ethical implications of computing. This course has a significant writing component. Prerequisite: CSDP 250.
- CSDP 405 Software Engineering II Credit 3**
 This course is designed to expand software engineering skills using structured programming methodologies with object-oriented design. State of the art technique in software design and development of laboratory experience in applying the techniques are covered. Topics may include structured design, structured programming, top-down design and development, segmentation and modularization techniques, iterative enhancement, design and code inspection techniques, correctness, and chief-programmer teams. Software engineering metrics, including measures of size, reuse, functionality, complexity, and quality, will be taught. Critical human factor issues involving software design, reliability, team productivity, and project management are addressed for a clearer understanding of software engineering. Prerequisite: CSDP 305.
- CSDP 406 Introduction to Artificial Intelligence Credit 3**
 This course is designed to provide an introduction to the different topics of Artificial Intelligence as well as the basic principles that Artificial Intelligence application areas are based on. Topics covered include automated reasoning, knowledge representation, automated interpretation systems and automated behavior. Prerequisite: CSDP 250
- CSDP 407 Advanced Database Credit 3**
 This course is intended for computer science students and professionals who have already acquired a basic background on databases. The objective of the course is to introduce the students to the most advanced concepts and recent issues in several areas of database technology, including the following: advanced database design and implementation, transaction management and concurrency control, distributed database management systems, object-oriented databases, and client/server systems. The course includes lab work and individual database application projects. Prerequisites: CSDP404
- CSDP 442 Numerical Analysis II Credit 3**
 This course extracts numerical solutions of systems of equations by direct and iterative methods, ordinary differential equations, optimization, evaluation of determinants, matrix inversion, and calculation of eigenvalues and eigenvectors, and partial differential equations. This course makes use of the powerful MATLAB software utilizing a more practical approach to link every method to real engineering and/or science problems without deriving theoretical concepts. **Prerequisite:** CSDP 341 and MATH 212.
- CSDP 450 Algorithms and Data Structures Credit 3**
 This course will focus on the design and analysis of algorithms. Topics include: review of data structures, analysis of algorithms, brute force algorithms, searching techniques, divide-and-conquer, sorting and selection, dynamic programming, graph algorithms, greedy algorithms, P and NP, and coping with NP-completeness. Prerequisites: CSDP250 and MATH 323.
- CSDP 490 Senior Design Project Credit 3**
 This course deals with formal software development techniques applied to the definition, design, coding, testing and documentation of a computer programming project. Each student completes an individual project. **Prerequisite:** Must be at senior status.
- CSDP 498 Selected Topics in Computer Science A Credit 3**
 This is a reading/research course recommended for all computer science majors. The grade for this course will be based primarily on a research project in an area of computer science chosen together by the student and the instructor. This course may be repeated (with different topics) for a maximum of 12 credits. Advanced undergraduate students may also enroll in graduate-level computer science courses below CSDP 610 with permission of the Department.
- CSDP 499 Selected Topics in Computer Science B Credit 3**
 This is a reading/research course recommended for all computer science majors. The grade for this course will be based primarily on a research project in an area of computer science chosen together by the student and the instructor. This course may be repeated (with different topics) for a maximum of 12 credits. Advanced undergraduate students may also enroll in graduate-level computer science courses below CSDP 610 with permission of the Department

MATHEMATICS

MATH 101¹ Intermediate Algebra

Credit 3

Topics in this intermediate algebra course include the algebra of signed numbers, solving linear equations and inequalities, quadratic equations, operations on algebraic expressions, and graphing. This course requires the successful completion of the Arithmetic Basic Skills Test administered by the Department. Students not receiving a satisfactory grade on this examination at entrance are required to attend special arithmetic skills laboratory sessions, in addition to their regular class work, until they do pass this test with a satisfactory score. This course does not satisfy the General Education Requirement in Mathematics and does not count towards graduation requirements.

MATH 102 Applications of College Mathematics

Credit 3

This course reviews sets and logic, functions and graphing, and solution of sets of linear equalities and inequalities. It includes an introduction to linear programming, combinatorial principles, and counting, with applications in the development of probability theory and statistics, numeration systems, and computer mathematics. All topics are covered making use of current educational technology, both from the point of view of their significance within mathematics and of their applicability in modeling the world using mathematics. In addition to regular class work, this course requires the successful completion of the Arithmetic Basic Skills Test administered by the Department. Students not receiving a satisfactory grade on this examination at entrance are required to attend special arithmetic skills laboratory sessions, in addition to their regular class work, until they do pass this test with a satisfactory score. **Prerequisites:** MATH 101 with a grade of at least "C" or two years of high school mathematics (Algebra I or higher) plus permission of the Department (obtained by receiving a satisfactory score on the placement test).

MATH 109 College Algebra

Credit 3

The purpose of this course is twofold: for students requiring quantitative mathematical skills but not trigonometry or calculus, it may be viewed as a terminal course; it also provides the algebraic and graphing skills necessary for satisfactory performance involving relations and functions, graphing, solving systems of linear equations, and the logarithmic and exponential functions. **Prerequisites:** MATH 101 with a grade of at least "C"; or two years of high school algebra, plus permission of the Department (obtained by receiving a satisfactory score on the placement test).

MATH 110 Trigonometry and Analytic Geometry

Credit 3

This course is intended for students majoring in mathematics, computer science, science, technology, or engineering, or for students preparing to take calculus. Topics covered include the unit circle and graphs of the trigonometric functions, trigonometric identities, trigonometric equations, inverse trigonometric functions, complex numbers, and polar coordinates. **Prerequisites:** MATH 109 with a grade of at least "C", or three years of high school mathematics (Algebra I or higher) plus permission of the Department (obtained by receiving a satisfactory score on the placement test).

MATH 111H Honors Elementary - Mathematical Analysis

Credit 4

This course covers the content of both MATH 109 and MATH 110 in one semester. As such, it is limited to those students with three (3) years of secondary school mathematics (including Trigonometry).

MATH 112 Calculus I

Credit 4

This course covers differential calculus of functions of one variable, graphing, and differentiating algebraic and transcendental functions. It also covers limits, continuity, and Mean Value Theorem and applications, as well as maximizing and minimizing functions, related rate, and approximation applications. An introduction to integration is also included. **Prerequisites:** MATH 110 or MATH 111H with a grade of at least "C" or better.

MATH 210 Elementary Statistics

Credit 3

The course covers frequency and graphs of distributions; calculation of averages from raw data and grouped data; the standard deviation; the Binomial, Poisson, and normal distribution and their properties; Bayes Theorem and Bayesian inference; Regression and correlation in two variables; and Times Series Analysis and applications. **Prerequisite:** MATH 109 or MATH 110 or MATH 111H.

¹MATH 101 does not satisfy the General Education Requirement and does not count towards graduation.

- MATH 211 Calculus II Credit 4**
 This course covers Integral calculus of functions of one variable; techniques and theory of the Riemann integral, including the fundamental theorem and its application; applications to area, volume, surface area work, centroids, arc length, and polar coordinates; advanced work with transcendental functions; and an introduction to series and sequences. Prerequisite: MATH 112.
- MATH 212 Calculus III Credit 4**
 This course covers multivariable differential and integral calculus, which includes the chain rule and inverse function theorems for several variables, with applications to maxima and minima; integration in polar, cylindrical, and spherical coordinate systems; Taylor's Theorem, infinite series; convergence tests; and applications. Prerequisite: MATH 211.
- MATH 232 Introduction to Linear Algebra Credit 3**
 This course covers vector spaces, matrices, and their algebra; linear transformations; and normal forms. Also, systems of linear equations using the Gaussian Elimination method, Cramer's rule, LU decomposition, and the inverse matrix are studied. The reduction of a matrix to row-echelon form and the use of the reduced matrix to calculate the rank of the matrix, determine the solvability of a system of linear equations and the dependence and independence of rows and/or columns of the original matrix are also included. Prerequisite: MATH 112.
- MATH 241 Elements of Differential Equations for Engineers Credit 3**
 This course is an introduction to ordinary differential equations which presents basic techniques for solving first and second order differential equations, both linear and nonlinear, and systems of differential equations. Emphasis is placed on qualitative and numerical methods, as well as on formula solutions. Prerequisite: Math 211
- MATH 301 College Geometry Credit 3**
 This course covers basic concepts of Euclidean geometry, such as distance congruence, similarity, triangles, parallelism, Pythagorean theorem, axiomatic geometry, Non-Euclidean geometry, and comparison with Euclidean geometry. This course is also essential as a part of the training of prospective teachers of secondary school mathematics. Prerequisite: MATH 110 or MATH 111H.
- MATH 302 Number Theory Credit 3**
 This course covers integers, divisibility, the Euclidean algorithm and its application, solution of Diophantine equations, prime numbers, congruencies, quadratic residues, number theoretic functions, and Moebius inversion and its applications. Prerequisite: MATH 110 or MATH 111H.
- MATH 304 History of Mathematics and Computer Science Credit 3**
 This course covers the historical and cultural development of mathematics and computer science from ancient times to the present. Emphasis is placed on the development of mathematical reasoning, style, philosophy, and techniques within cultural settings, growth of computer hardware and software; and developmental styles of applications. Prerequisite: MATH 109 or MATH 110 or MATH 111H.
- MATH 309 Introduction to Probability Credit 3**
 This course covers sample spaces, axioms, and elementary theorems of probability; it also covers combinatorics, dependence, conditional probability, random variables, probability distributions which include the Binomial, Geometric, Poisson, Negative Binomial, Hypogeometric, Uniform, Normal, Gamma, and Chi-Square, expectation, mean variance, and moment generating functions, Chebychev's inequality; examples of stochastic processes are also studied. Prerequisite: MATH 211.
- MATH 310 Mathematical Statistics I Credit 3**
 This course covers bivariate and multi-variate distributions of random variables and their properties, limit theorems (law of large numbers and the central limit theorem) transformation of variables for the discrete and continuous types, and T and F distributions; point and interval estimation; the maximum likelihood; unbiasedness; efficiency; sufficiency; MVU of estimators and other characteristics of point estimators; Cramer and Rao Blackwell Theorems, testing of hypotheses, and Neyman Pearson Lemma. Prerequisites: MATH 211 and MATH 309.
- MATH 321 Differential Equations Credit 4**
 This course covers first-order equations for which exact solutions are obtainable with applications. Higher order linear differential equations, systems of linear differential equations, Laplace transforms, non-linear differential equations, and numerical applications are also included. Prerequisite: MATH 212.

- MATH 322 Foundations of Mathematics Credit 3**
 This course covers sets, relations, propositional calculus, first order theory and its model theory, completeness, incompleteness and independence theorems. Also, applications to axiomatic systems, number theory, geometry, set theory or computer science are included. Prerequisite: MATH 112.
- MATH 323 Introduction to Discrete Structures Credit 3**
 Topics covered in this course include group, graph, Boolean, propositional, and other algebraic structures through detailed study of automata and their relationship to formal languages. This course requires teams creating relatively large application programs. Prerequisites: CSDP 222.
- MATH 342 Advanced Calculus Credit 3**
 This course includes a review of the real numbers, topology of Cartesian spaces, limits, convergence, continuity, differentiability, integration, infinite series and products, Fourier series, and Laplace transforms. Prerequisite: MATH 212.
- MATH 350 Linear Programming Credit 3**
 This course introduces the concepts of Models, model-building and operations research methods. It includes a review of linear algebra and convexity, mathematical background; graphic method, simplex computation procedures, special cases, degeneracy, duality and its applications; transportation, production, scheduling and inventory control problems; PERT Network Analysis Techniques and game theory and software application to the solution of linear programming problems. (LINDO and MATHLAB). Prerequisites: CSDP 222
- MATH 360 Statistics for Scientists Credit 3**
 This course, available for departmental majors and intermediate between MATH 210 and the three-semester probability and statistics sequence, is a one-semester introduction to the methodology and application of statistics. Emphasis is placed on statistical methods commonly used in scientific and technical applications and their theoretical justification and limitations. Prerequisite: MATH 211 and MATH 309.
- MATH 410 Mathematical Statistics II Credit 3**
 Correlation, linear and multiple regression techniques are covered mathematically as well as using available statistical software. In addition, design of experiments, analysis of covariance techniques; analysis of categorical data including the chi-square and goodness-of-fit tests, contingency tables and non-parametric statistics are covered. Prerequisite: MATH 211, MATH 309 and MATH 310 and MATH 212.
- MATH 411 Modern Algebra Credit 3**
 This course takes an axiomatic approach to studying the structures: groups, rings, and fields. Quotient structures, sub-structures, homomorphism and isomorphism are also included. In addition to abstract structures, numerous examples of well-known structures are investigated from the axiomatic point of view. Prerequisite: MATH 211.
- MATH 412 Linear Algebra Credit 3**
 This course covers matrix algebra and determinants, vector spaces, subspaces, basis and dimension, inner product, orthogonal and orthonormal vectors and sets, Gram-Schmidt orthogonalization process, linear transformations, eigenvalues and eigenvectors, kernel and range, diagonalization of matrices, and quadratic forms. Also, application of linear algebra to Error-Correcting Codes and linear programming are covered. Prerequisite: MATH211.
- MATH 413 Modern Algebra II Credit 3**
 This course is a continuation of Math 411. Specific topics include Sylow's Theorems and Free Abelian Groups from Group Theory; Fundamental Homomorphisms/Isomorphisms Theorems and Ideals (Maximal) from Ring Theory; and Extension Fields leading to the study of Galois Theory. Prerequisite: Math 411.
- MATH 440 Topology Credit 3**
 This is a beginning course in topology with emphasis on the development of mathematical maturity in the area. Open and closed sets, connectedness, compactness, continuous functions and homomorphisms, separation properties, and pathologies are included. Prerequisite: MATH 212 or MATH 411 or permission of instructor.
- MATH 442 Numerical Analysis II Credit 3**
 This course extracts numerical solutions of systems of equation by direct and iterative methods, ordinary differential equations, optimization, evaluate of determinants, matrix inversions, and calculation of eigenvalues and eigenvectors, and partial differential equations. This course makes use of the powerful MATLAB software utilizing a more practical approach and links every method to real engineering and/or science problems without deriving theoretical concepts.

MATH 443 Real Analysis I Credit 3
This course covers the analysis on the real line and n -space from the abstract point of view. Point sets, completeness, convergence, differentiability, Riemann integration, measurable sets and functions, Lebesgue integration, differentiation vs. integration, interchange of order, Lebesgue-Stieltjes integrals, dominated and other convergence theorems are included. Prerequisite: MATH 212 .

MATH 444 Real Analysis II Credit 3
This course is a continuation of MATH 443. Emphasis is placed on uniform convergence of sequences and series of functions, improper integrals, differentiation and integration in higher dimensions, inverse and implicit function theorems, introductory metric spaces, and metric space topologies. Prerequisite: MATH 443.

MATH 455 Mathematical Models Credit 3
This course covers construction, development, and study of mathematical models for real applications; Markov chain models; models for linear optimization; and selected case studies. Prerequisite: MATH 443 or permission of instructor.

MATH 490 Senior Seminar Credit 1
This course is designed for graduating seniors to acquaint them with research information and sources in the field of mathematics. The student develops and presents reports on current research problems from various fields of mathematics.

MATH 498 Selected Topics in Mathematics Credit 3
This is a reading course recommended for all mathematics majors. The grade for this course is based primarily on a research project in an area of mathematics chosen by the student and the instructor. This course may be repeated (with different topics) for a maximum of 12 credits.

MATH 499 Selected Topics in Mathematics Credit 3
This is a reading course recommended for all mathematics majors. The grade for this course is based primarily on a research project in an area of mathematics chosen together by the student and the instructor. This course may be repeated (with different topics) for a maximum of 12 credits.

DIRECTORY OF FACULTY

- Alls, David** Lecturer
B.A., Salisbury State College, M.Ed., University of Virginia, M.S., University of Maryland Eastern Shore
- Arya, Rakesh** Lecturer
B.A., B.S., Delhi University, M.S., Jackson State University
- Boyd, Eddie** Assistant Professor
B.S., Grambling State University, M.S., North Texas State University, Ph.D., Oklahoma State University
- Casavant, Albert E.** Assistant Professor
B.Sc., Brown University, M.S., and Ph.D., University of Illinois, Urbana-Champaign
- Chapin, Jr., Edward William** Assistant Professor
B.S. Trinity College at Hartford, M.A. and Ph.D., Princeton University
- Chi, Albert** Assistant Professor
M.A. and M.Ed. Emporia State University, Ph.D. Oklahoma State University
- Hura, Gurdeep** Chair and Professor
B.E. Jabalpur University India, M.S., Ph.D., University of Roorkee, India
- Johnson, Robert** Associate Professor
B.S., University of Louisiana, M.S. Southern University, Ph.D., St. Louis University
- Jones-Douglas, Lois E.** Lecturer
B.S., M.S., University of Maryland Eastern Shore
- Malik, Bashir Malik** Associate Professor
B.S., University of Khartoum, Ph.D., University of Essex, England
- Ndumu, Martin** Associate Professor
B.S., M.S., University of Paris, France, M.S., Ph.D., University of Warwick, England
- Riccobono, Joanna** Lecturer
B.S., and M.S., Salisbury University
- Ridlon, Candice** Assistant Professor
B.S. Florida State University, M.Ed. Valdosta State University, Ph.D. Florida State University
- Seaton, Daniel** Associate Professor
B.S., Frostburg University, M.S., Shippensburg University, Ph.D., Virginia Tech.
- Song, Yinglei** Assistant Professor
B.S. Tsinghua University, M.S. Physics and CS, Ohio University, Ph.D. University of Georgia
- Sharma, Rakesh** Lecturer
B.S., James Madison University, M.S. North Carolina Central University
- Ukoha, Ojiabo** Lecturer
B.B.A., M.B.A., Kennesaw State University, M.S., Clark Atlanta University, Ph.D. University of MD Eastern Shore
- Williams, Mark** Associate Professor
B.A., Oakland University, M.S., Ph.D., University of Cincinnati

DEPARTMENT OF TECHNOLOGY

www.umes.edu/SBT

Dr. Leon L. Copeland, Sr., Chairperson

MISSION

The central mission of the Department of Technology at the University of Maryland Eastern Shore is to serve the Eastern Shore region, the State of Maryland, and the nation by improving technical education and the professional technical practice of construction and engineering technology. The mission is achieved through high quality instruction, research, and community service. Through the teaching and learning process the department aims to provide knowledge, skills, and values to students preparing for professional technical careers and persons currently employed in industry. New technical and professional knowledge is developed and disseminated through research and community service. Academic programs include Construction Management Technology, Engineering Technology, and Technology Education. Each program emphasizes basic knowledge and up-to-date technical skills that will enable graduates to solve problems in a logical manner and to draw conclusions from principles and facts. Through the humanistic studies in each program, students are taught to recognize their responsibilities as citizens to prepare themselves for active participation in society.

OBJECTIVES

The educational experiences offered by the Department of Technology will provide students with opportunities to:

1. Demonstrate an operational knowledge of the techniques associated with the design, construction and maintenance of residential and commercial structures;
2. Exercise independent judgment and sound ethical values in expediting work without jeopardizing its effectiveness, safety or cost;
3. Organize and manage personnel, materials and equipment for carrying out construction, maintenance and operation of complex engineering systems;
4. Demonstrate effective communication of ideas by means of spoken and written language as well as graphic techniques;
5. Solve technical problems that translate ideas into functioning, machines, structures and systems;
6. Plan and implement instructional programs to meet the needs of students in a technological age;
7. Plan and instruct technology education programs that promote technical literacy through the application of mathematics and science and other subjects in classroom and laboratory activities;
8. Improve the professional technical practice of Construction Management, Engineering Technology, and Technology Education through continuing education and community service; and
9. Demonstrate humanistic values and responsibilities that promote active participation as productive citizens.

DEGREES OFFERED

Bachelor of Science - Construction Management Technology

Bachelor of Science - Engineering Technology

Bachelor of Science - Technology Education

Masters of Education¹ - Career and Technology Education

GENERAL PROGRAM REQUIREMENTS

The admission of students to the undergraduate programs in the Department of Technology is based upon the general admission requirements of the University.

¹Please consult the UMES Graduate Catalog for further details.

DESCRIPTION OF PROGRAMS

The **Construction Management Technology** (CMTE) curriculum is a four year program of study leading to a Bachelor of Science Degree. This interdisciplinary curriculum accredited by the American Council for Construction Education (ACCE) provides a background in the several physical and applied sciences and construction technology. Technical content is balanced by courses in business management, communications, humanities, and social sciences. This broad diversification provides the technical base needed for immediate employment as well as the managerial concepts for career development. Students must complete 126 semester hours of designated coursework including supervised internship in the construction industry. A minimum grade of "C" must be achieved in prerequisite courses, major core courses, supportive courses, technical elective courses, and selected general education courses.

The curriculum in **Engineering Technology** (ETEE/ETME) follows TAC/ABET recommendations and offers upper division courses leading to a Bachelor of Science Degree in **Electrical/Electronic Engineering Technology** and **Mechanical Engineering Technology**. The program is designed to provide a flexible course of study for students holding an Associate Degree in Engineering Technology from the Maryland Community College system and for students transferring out of the regular engineering program. The first two years may be completed through any of the engineering technology programs offered by an accredited community college. The Electrical/Electronics option is designed to prepare graduates for a career in the Electrical Engineering field. The curriculum provides in-depth exposure to the areas of communications, digital systems (including microprocessors), power machinery, and electronic systems design. The Mechanical option is designed to prepare graduates for a career in the Mechanical Engineering field. The curriculum provides in-depth exposure to the areas of manufacturing, thermal power, and mechanical systems design. It is anticipated that most students from community colleges will transfer about 60 credit hours. Total semester credits required for graduation is 126. A minimum grade of "C" must be achieved in prerequisite courses, major core courses, supportive courses, technical elective courses, and selected general education courses.

Technology Education (EDTE) is a four-year program of study leading to a Bachelor of Science degree, which will certify students to teach technology education in the secondary school. Students acquire technical knowledge and skills through creative and problem solving learning experiences related to the designed world. A sequence of professional education and liberal studies courses are also required to develop leadership and citizenship skills needed for successful teaching. A total of 126 credits are required for graduation. A minimum grade of "C" must be achieved in prerequisite courses, major core courses, supportive courses, technical elective courses, and selected general education courses.

CONSTRUCTION MANAGEMENT TECHNOLOGY

The Construction Management Technology (CMTE) curriculum is a four year program of study leading to a Bachelor of Science Degree. This interdisciplinary curriculum accredited by the American Council for Construction Education (ACCE) provides a background in the several physical and applied sciences and construction technology. Technical content is balanced by courses in business management, communications, humanities, and social sciences. This broad diversification provides the technical base needed for immediate employment as well as the managerial concepts for career development.

The goal of the Construction Management Technology program is the preparation of well educated professionals for challenging careers in the construction industry. Emphasis is placed on preparing professionals who are capable of managing the total construction process. Graduates qualify for employment with general contracting and subcontracting firms and in government.

DEPARTMENTAL REQUIREMENTS

Students must complete 126 semester hours of designated coursework including supervised internship in the construction industry. A minimum grade of "C" must be achieved in prerequisite courses, major core courses, supportive courses, technical elective courses, and selected general education courses. Course requirements other than those listed should be selected in consultation with the advisor or Department Chairman.

COMMON REQUIRED COURSES

ACCT 201	BUAD 302	ECON 202	ENVS 101
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REQUIRED MAJOR COURSES

CMTE 201	CMTE 311	CMTE 413	EDTE 131
CMTE 205	CMTE 312	CMTE 414	
CMTE 214	CMTE 313	CMTE 425	
CMTE 230	CMTE 314	CMTE 426	
CMTE 286	CMTE 315	CMTE 445	
CMTE 295	CMTE 316	CMTE 454	
	CMTE 317	CMTE 458	
	CMTE 342		
	CMTE 395		

CAREER OPPORTUNITIES

A degree in Construction Management Technology prepares individuals for challenging careers in the construction industry with the ability to manage and supervise the total construction process.

CURRICULUM GUIDE FOR CONSTRUCTION MANAGEMENT TECHNOLOGY

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
EDTE 131	3	ENGL 102 ¹	3
ENGL 101 ¹	3	ENGL 001	0
MATH 111 ²	4	ECON 201 ³	3
ARTS 101	3	CMTE 230	3
EDTE 100	<u>1</u>	ENVS 101	<u>3</u>
	14		12

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
PHYS 121 ⁴	3	MATH 112	4
PHYS 123 ⁴	1	CMTE 214	3
CMTE 201	3	ENGL 305	3
ENGL 203 ⁵	3	PHYS 122	3
CMTE 205	3	PHYS 124	1
ECON 202	<u>3</u>	SOCI 201 ⁶	<u>3</u>
	15		

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CMTE 311	3	CMTE 312	3
CMTE 313	3	CMTE 314	4
CMTE 315	3	CMTE 316	3
CMTE 286	3	CMTE 342	3
ENGL 204	3	BUAD Elective ^{7, 8}	<u>3</u>
ACCT 201	<u>3</u>		16
	18		

SUMMER

CMTE 395	2
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SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CMTE 317	3	CMTE 414	3
CMTE 413	3	CMTE 426	3
CMTE 425	3	CMTE 454	3
CMTE 445	3	CMTE 458	2
BUAD Elective ^{1, 2}	<u>3</u>	BUAD Elective ^{1, 2}	<u>3</u>
	15		14

Total Credits Hours: 126

¹Course satisfies GEN ED CURR AREA V.

²Course satisfies GEN ED CURR AREA I:A.

³Course satisfies GEN ED CURR AREA II:A.

⁴Courses satisfy GEN ED CURR AREA III.

⁵Course satisfies GEN ED CURR AREA.

⁶Course satisfies GEN ED CURR AREA II:B.

⁷Students must select from BUAD 132, 300, 304, 306, or 412 or MKTG 308.

⁸BUAD 302 is the prerequisite for BUAD 304, 306 and 412.

ELECTRICAL/ELECTRONICS ENGINEERING TECHNOLOGY

The curriculum in Engineering Technology (ETEE/ETME) follows TAC/ABET recommendations and offers upper division courses leading to a Bachelor of Science Degree in Electrical/Electronic Engineering Technology. The program is designed to provide a flexible course of study for students holding an Associate Degree in Engineering Technology from the Maryland Community College system and for students transferring out of the regular engineering program. The first two years may be completed through any of the engineering technology programs offered by an accredited community college. The Electrical/Electronics option is designed to prepare graduates for a career in the Electrical Engineering field. The curriculum provides in-depth exposure to the areas of communications, digital systems (including microprocessors), power machinery, and electronic systems design.

The goal of the **Engineering Technology** program is to prepare students for a challenging career in Electrical/Electronic Engineering Technology. After receiving the Bachelor of Science degree, graduates are employed as Engineering Technologists. The emphasis in engineering technology courses is the practical design and utilization of devices and systems, with a strong laboratory program supporting the lecture courses.

DEPARTMENTAL REQUIREMENTS

It is anticipated that most students from community colleges will transfer about 60 credit hours. Total semester credits required for graduation is 126. A minimum grade of "C" must be achieved in prerequisite courses, major core courses, supportive courses, technical elective courses, and selected general education courses. Course requirements other than those listed should be selected in consultation with the advisor or Department Chairman. Electrical/Electronics Engineering Technology requires a minimum total of 24 credit hours of Technical Elective courses.

COMMON REQUIRED COURSES

CHEM 111	CHEM 113	CSDP 220	MATH 211
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REQUIRED MAJOR COURSES

ETEE 114 ¹	ETEE 201 ¹	ETEE 303	ETEE 421
	ETEE 202 ¹	ETEE 314	ETEE 485
	ETEE 215 ¹	ETEE 335	ETEE 486
	ETEE 216	ETEE 346	
	ETEE 218	ETEE 355	

Group I: Technical Electives²

CMTE 313	EDTE 131	ETEE 222	ETME 318
CSDP 222	EDTE 132	ETEE 425	ETME 395
		ETEE 474	

Group II: Technical Electives³

BUAD 302	BUAD 410	BUAD 411	BUAD 412
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CAREER OPPORTUNITIES

A degree in Engineering Technology provides an engineering education with emphasis on manufacturing systems operations, technical applications and managerial services in government and in industry.

¹These are community college level courses; they, or appropriate substitutions, should be completed before enrolling at UMES.

²Students must complete a minimum of 18 credit hours.

³Students must complete a minimum of 6 credit hours.

CURRICULUM GUIDE FOR ELECTRICAL/ELECTRONICS ENGINEERING TECHNOLOGY

The following paradigm is a prototype of the associate degree program or equivalent experience that should be completed before enrolling for the junior and senior year.

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
Computer-Assisted Drawing and Design I (CAD-I)	3	Electronics I	3
Gen. College Physics I	3	Gen. College Physics II	3
Gen. College Physics I Lab	1	Gen. College Physics II Lab	1
Algebra/Trigonometry/Geometry	3	Calculus I	4
Basic Composition I	3	English Composition II	3
First Year Experience Seminar	<u>1</u>	English Proficiency Exam	<u>0</u>
	14		14

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
Circuit Technology I	3	Circuit Technology II	3
Electronics II	3	Electronics III	3
Principles of Chemistry I	3	Electronics Laboratory	4
Principles of Chemistry I Lab	1	Introduction to Computers	4
Calculus II	4	Literature, Foreign Language	<u>3</u>
Fund. Contemporary Speech	<u>3</u>		17
	17		

The following paradigm is a recommended course sequence for those graduates of associate-degree technology programs or equivalent experiences to complete requirements for the Bachelor of Science degree in Engineering Technology at UMES.

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ETEE 303	3	ETEE 346	3
ETEE 421	4	ETEE 314	3
ENGL 305	3	ETEE 355	3
ETEE 335	3	CSDP 221	4
One Course in Literature, Foreign Lang. <u>or</u> Fine Arts	<u>3</u>	FREE Elective	<u>3</u>
	16		16

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ETEE 485	3	ETEE 486	3
Technical Elective	3	FREE Elective	3
One course in: Literature <u>or</u> Foreign Language	3	Technical Elective	3
Technical Elective	3	Technical Elective	3
Technical Elective	<u>3</u>	Technical Elective	3
	15	FREE Elective	<u>3</u>
			18

Total Credit Hours: 126

MECHANICAL ENGINEERING TECHNOLOGY

The curriculum in Engineering Technology (ETEE/ETME) follows TAC/ABET recommendations and offers upper division courses leading to a Bachelor of Science Degree in **Mechanical Engineering Technology**. The program is designed to provide a flexible course of study for students holding an Associate Degree in Engineering Technology from the Maryland Community College system and for students transferring out of the regular engineering program. The first two years may be completed through any of the engineering technology programs offered by an accredited community college. The Mechanical option is designed to prepare graduates for a career in the Mechanical Engineering field. The curriculum provides in-depth exposure to the areas of manufacturing, thermal power, and mechanical systems design.

The goal of the **Engineering Technology** program is to prepare students for a challenging career in Mechanical Engineering Technology. After receiving the Bachelor of Science degree, graduates are employed as Engineering Technologists. The emphasis in engineering technology courses is the practical design and utilization of devices and systems, with a strong laboratory program supporting the lecture courses.

DEPARTMENTAL REQUIREMENTS

It is anticipated that most students from community colleges will transfer about 60 credit hours. Total semester credits required for graduation is 126. A minimum grade of "C" must be achieved in prerequisite courses, major core courses, supportive courses, technical elective courses, and selected general education courses. Course requirements other than those listed should be selected in consultation with the advisor or Department Chairman. Electrical/Electronics Engineering Technology requires a minimum total of 15 credit hours of Technical Elective courses.

COMMON REQUIRED COURSES

BUAD 410	CHEM 111	CSDP 221	MATH 211
BUAD 411	CHEM 113		

REQUIRED MAJOR COURSES

CMTE 313	EDTE 131	ETEE 201	ETME 301
CMTE 314	EDTE 132	ETEE 202	ETM3 303
			ETME 318
			ETME 325
			ETME 342
			ETME 356
			ETME 381
			ETME 423
			ETME 445
			ETME 475

Technical Electives¹

CMTE 214	CSDP 222	EDTE 341	ETME 304
CMTE 316	CSDP 341	EDTE 342	ETME 360
CMTE 413	ENGE 370	ETEE 303	ETME 395
	MATH 212	ETEE 314	ETME 476
	MATH 321	ETEE 474	

CAREER OPPORTUNITIES

A degree in Engineering Technology provides an engineering education with emphasis on manufacturing systems operations, technical applications, and managerial services in government and industry.

¹Students must complete a minimum of 15 credit hours.

CURRICULUM GUIDE FOR MECHANICAL ENGINEERING TECHNOLOGY

The following paradigm is a prototype of the associate degree program or equivalent experience that should be completed before enrolling for the junior and senior year.

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
First Year Experience Seminar	1	Behavioral Sciences	3
English Composition I ¹	3	Computer-Assisted Drawing and Design II (CAD-II)	3
Computer-Assisted Drawing and Design I (CAD-I)	3	English Composition II ²	3
Trig. and Analytic Geometry ³	3	Calculus I ³	4
General College Physics I	3	General College Physics II	3
General College Physics I Lab	<u>1</u>	General College Physics II Lab	<u>1</u>
	14		17

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
Statics	3	Strength of Materials	4
Fund. of Contemporary Speech ⁴	3	Principles of Economics II ⁵	3
Circuit Technology I	3	Circuit Technology II	3
Principles of Chemistry I	3	Literature, Foreign Language or Fine Arts	3
Principles of Chemistry I Lab	1	Calculus II	<u>4</u>
Literature, Foreign Lang.	<u>3</u>		17
<u>or</u> Fine Arts	3		
	16		

The following is a recommended course sequence for those graduates of associate-degree technology programs or equivalent experiences to complete requirements for the Bachelor of Science degree in Engineering Technology at UMES.

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 305 ⁶	3	ETME 318	3
ETME 301	3	ETME 342	3
ETME 303	3	ETME 356	3
ETME 381	4	CSDP 220	4
ETEE 325	<u>3</u>	FREE Elective	<u>3</u>
	16		16

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BUAD 411	3	BUAD 410	3
ETME 423	3	ETME 475	3
ETME 445	3	Technical Elective	3
Technical Elective	3	Technical Elective	3
Technical Elective	<u>3</u>	Technical Elective	<u>3</u>
	15		15

Total Credit Hours: 126

¹Course satisfies GEN ED CURR AREA V. Students must pass English Composition I with a grade of "C" or better before taking ENGL 203.

²Course satisfies GEN ED CURR AREA V. Students must pass English Composition II with a grade of "C" or better before taking ENGL 203.

³Course satisfies GEN ED CURR AREA IV.

⁴Course satisfies GEN ED CURR AREA I.

⁵Course satisfies GEN ED CURR AREA II:A.

⁶Course satisfies GEN ED CURR AREA V.

TECHNOLOGY EDUCATION

Teacher Certification

Technology Education (EDTE) is a four-year program of study leading to a Bachelor of Science degree, which will certify students to teach technology education in the secondary school. Students acquire technical knowledge and skills through creative and problem solving learning experiences related to the designed world. The Technology Education Teacher Certification sequence (based on established state requirements) may be pursued by education majors who also desire certification in Technology Education.

The goal of the Technology Education program is to prepare professionals who will qualify for certification to teach technology education at the middle school and high school levels. Emphasis is placed on improving the teaching- learning process and promoting and developing technological literacy, which is the ability to use, manage, understand, and assess technology. Study is focused on technical applications to support classroom and laboratory activities.

DEPARTMENTAL REQUIREMENTS

A sequence of professional education and liberal studies courses are required to develop leadership and citizenship skills needed for successful teaching. A total of 126 credits are required for graduation. A minimum grade of "C" must be achieved in prerequisite courses, major core courses, supportive courses, technical elective courses, and selected general education courses. *Course Requirements other than those listed should be selected in consultation with the advisor or Department Chairman.

REQUIRED MAJOR COURSES

EDTE 111	EDTE 211	EDTE 341	EDTE 410
EDTE 131	EDTE 232	EDTE 342	EDTE 467
		EDTE 351	EDTE 481
		EDTE 361	EDTE 482
			EDTE 483

REQUIRED PROFESSIONAL EDUCATION COURSES

EDCI 200	EDCI 400	EDSP 428	PSYC 305
EDCI 201	EDCI 406		PSYC 307
EDCI 311	EDCI 409		
	EDCI 410		
	EDCI 425D		
	EDCI 460/470D		

CAREER OPPORTUNITIES

A degree in Technology Education prepares professionals who will qualify for certification to teach technology education at the middle school and high school levels.

CURRICULUM GUIDE FOR TECHNOLOGY EDUCATION

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
EDTE 111	3	ARTS 101 ³	3
EDTE 131	3	MATH 110 ²	3
ENGL 101 ¹	3	ENGL 102 ¹	3
MATH 109 ²	3	EDCI 200	3
EDTE 100	<u>1</u>	ENGL 001	0
	13	BIOL 101 ⁴	3
		EDCI 201 ⁵	<u>1</u>
			16

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
SOCI 201	3	EDTE 211	3
ECON 201 ⁶	3	EDTE 232	3
PHYS 121 ⁴	3	EDTE 314	3
PHYS 123	1	PHYS 122 ⁴	3
ENGL 203 ⁷	<u>3</u>	PHYS 124	1
	13	PSYC 305	<u>3</u>
			16

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
EDTE 341	3	EDCI 409	3
EDTE 351	3	EDTE 361	3
PSYC 307	3	EDTE 467	3
EDCI 311	3	EDTE 342	3
ENGL 305 ¹	3	EDCI 406	3
ENGL204 ¹	<u>3</u>	EDCI 482	<u>3</u>
	18		18

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
EDCI 410	3	EDCI 400	3
EDTE 481	3	EDCI 460	6
EDSP 428	3	EDCI 470	<u>6</u>
EDCI 483	3		15
EDCI425D	3		
EDTE 410	<u>3</u>		
	18		

Total Credit Hours: 126

¹Course satisfies GEN ED CURR AREA V.

²Course satisfies GEN ED CURR AREA IV. If student needs MATH 101, he/she must take the course before MATH 109.

³Course satisfies GEN ED CURR AREA I:A.

⁴Course satisfies GEN ED CURR AREA III.

⁵Course does not count towards graduation.

⁶Course satisfies GEN ED CURR AREA II:A.

⁷Course satisfies GEN ED CURR Requirement.

MINOR PROGRAMS

In order to minor in Construction Management Technology, it is recommended that the Department Chair be contacted as early as possible. A minor advisor will be assigned by the chairman. All prerequisites for departmental courses must be met before enrolling in the courses to satisfy the minor sequence.

Two suggested minors in Construction Management Technology are outlined below, one for those interested in technical applications and one for those interested in management applications. Upon justification by the student, limited substitution of courses can be made upon approval by the Department Chair.

TECHNICAL

Students interested in a minor in Construction Management Technology and in technical applications should complete the following courses, totaling 25 credits:

CMTE 201	CMTE 313	EDTE 131	CMTE 300-400 Level Course
CMTE 214	CMTE 314	EDTE 132	
CMTE 230			

MANAGEMENT

Students interested in a minor in Construction Management Technology and in management applications should complete the following courses, totaling 24 credits:

CMTE 201	CMTE 311	CMTE 425	EDTE 131
CMTE 230	CMTE 342	CMTE 445	EDTE 132

MECHANICAL ENGINEERING TECHNOLOGY

Students interested in a minor in Mechanical Engineering Technology should complete the following courses, totaling 25 credits:

CMTE 313	EDTE 131	ETME 301	ETME 423
CMTE 314	EDTE 132	ETME 303	
		ETME 356	

TECHNOLOGY EDUCATION (Teacher Certification)

Students interested in a minor in Technology Education may pursue one of two tracks depending on their career objective. A sequence of courses has been designed for both Technology Education Teacher Certification and Technical Applications in industry. The Technology Education Teacher Certification sequence (based on established state requirements) may be pursued by education majors who also desire certification in Technology Education. Students must meet all departmental prerequisites and receive a grade of C or better in required courses.

	<u>Manufacturing and Construction Technology</u>		
CMTE 230	EDTE 351	ETME 356	EDTE ¹
	EDTE 361		
	<u>Design and Communication Technology</u>		
CMTE 201	EDTE 131	EDTE 132	EDTE 232
	<u>Energy and Transportation Technology</u>		
EDTE 211	EDTE 312	EDTE 341	EDTE 342
	<u>Six additional semester hours to include</u>		
	EDTE 481	EDTE 499	

Additional professional education courses, as listed below for Career and Technology Education, and student teaching may also be required by the State for certification. A total of 27 credits is required.

	<u>Technical Applications For Industry</u>		
CMTE 230	EDTE 131	EDTE 351	Elective
ETME 356	EDTE 132	EDTE 361	
	EDTE 211		
	EDTE 212		

¹Student must select a Technical elective.

CAREER AND TECHNOLOGY EDUCATION CERTIFICATION

The University of Maryland is designated as one of the institutions which shall offer the "Trade and Industrial" certification courses. The courses which are offered are those required for certification in Maryland. To become certified as a trade-industrial and service occupations teacher in the State of Maryland, a person must successfully complete 18-21 credit hours of instruction. The following courses will satisfy the Standard (SPC) Certification Requirements:

EDCI 409	EDSP 428	EDTE 368	EDTE 437
EDCI 410		EDTE 370	EDTE 440

COURSE DESCRIPTIONS IN CONSTRUCTION MANAGEMENT TECHNOLOGY

- CMTE 201 Architectural Drawing Credit 3**
This is an introductory course in architectural planning and blue print reading utilized by architects and builders of residential, commercial, and light industrial properties throughout the construction industry. Students utilize CAD drafting skills and sketches to produce plans, details, and sections used in field and office operations. Lecture one hour, laboratory four hours. Prerequisite: EDTE 131.
- CMTE 205 Computer Applications in Construction Credit 3**
This course develops a solid understanding of micro-computers, the Windows operating system, and Internet usage. Students develop proficiency in the use of various commercially available software packages, such as word processing, presentation, spreadsheet, and database management. A variety of construction specific software programs in estimating, scheduling, and construction project management are introduced. Lecture two hours; laboratory two hours. Prerequisite: Sophomore standing.
- CMTE 214 Construction Surveying Credit 3**
This course covers coordinates, directions, distances and elevations. The course includes traverses, boundary surveys leveling, national rectangular coordinate systems, property description, public land subdivision, metes and bounds, and topographic surveys. Lecture one hour; laboratory four hours. Prerequisite: MATH 110 or MATH 111.
- CMTE 230 Construction Materials Credit 3**
The properties of various materials used in construction, such as wood, steel, clay products, concrete, plastic, glass, concrete products, soils, and other materials are covered in this course. Lecture two hours; laboratory two hours.
- CMTE 286 Construction Planning & Scheduling Credit 3**
The focus of this course is on the application of planning and scheduling techniques to a construction project. The use of bar charts and critical path method (CPM) are emphasized, as well as cost allocation, resource leveling, scheduling updating, and microcomputer application. Lecture two hours; laboratory two hours. Prerequisite: CMTE 201, CMTE 205.
- CMTE 295 Construction Management Internship I Credit 2**
This course is designed to provide students with work experience as interns under supervision of construction professionals. Students become familiar with many phases of construction under actual job conditions, which may include estimating, field engineering, inspecting, scheduling, and supervision. Students must register for the course during summer school and work a minimum of 40 hours per week for six (6) weeks to receive credit for the course. Students enrolled in the Military Reserve Officer Training Corps may receive credit for (1) summer camp experience under this course listing (while enrolled at UMES). Prerequisites: Completion of Sophomore year and permission of instructor.
- CMTE 311 Construction Methods I Credit 3**
The study and analysis of job planning, work methods, materials, equipment, and power tool and equipment safety methods employed on residential construction projects are covered in this course. Lecture one hour; laboratory four hours. Prerequisites: CMTE 201, CMTE 230, and MATH 110 or MATH 111.
- CMTE 312 Construction Methods II Credit 3**
This course is a continuation of Construction Methods I as applied to commercial, institutional, and industrial construction projects. Integration of OSHA and MOSHA safety standards for personal safety are covered in this course. Lecture one hour; laboratory four hours. Prerequisite: CMTE 311.
- CMTE 313 Statics Credit 3**
This course covers the composition and resolution of forces, equilibrium of force systems; application of the principles of statics to problems, including force analysis of simple structures; centroids; and moments of inertia. Lecture three hours. Prerequisites: MATH 110 and PHYS 121.
- CMTE 314 Strength of Materials Credit 4**
This course covers the behavior of materials subjected to tension, compression, shear, and bending; design of beams and columns; tests to determine the physical properties of various structural materials, including steel, wood, and aluminum; and analysis and interpretation of test data. Lecture three hours; laboratory two hours. Prerequisites: CMTE 313 and MATH 112.
- CMTE 315 Environmental Technology I Credit 3**
This course covers heat loss, heat gain, and humidity control; the control of temperature and humidity in buildings; basics of designing heating, ventilation, and air conditioning systems; sizing of pipes and ducts, and selection of HVAC equipment. Principles of water services, drainage, waste and vent, and fire protection systems will also be covered. Lecture two hours; laboratory two hours. Prerequisites: Junior standing, CMTE 201, ENGL 305, MATH 112, and PHYS 121.

- CMTE 316 Environmental Technology II Credit 3**
 This course covers the principles and practices of electrical systems, lighting systems, vertical transportation for buildings, sound control, and year-round climate control in buildings. The course also includes code provisions and cost estimation. Lecture one hour; laboratory four hours. Prerequisites: CMTE 201, ENGL 305, PHYS 121, PHYS 122, and MATH 112.
- CMTE 317 Soils in Construction Credit 3**
 This course covers the identification and properties of soils with emphasis on laboratory and field testing. The influence of soil material in certain construction operations and in the construction contract are emphasized. Lecture one hour. Laboratory four hours. Prerequisites: CMTE 314 and CMTE 230.
- CMTE 342 Construction Estimating I Credit 3**
 The classification of work, quantity survey techniques, as well as cost estimating of labor, material, and equipment used in the completion of construction projects are covered in this course. Lecture two hours; laboratory two hours. Prerequisites: CMTE 214, CMTE 311, MATH 110 or MATH 111.
- CMTE 395 Construction Management Internship II Credit 2**
 This course is designed to provide students with work experience as interns under supervision of construction professionals. Students become familiar with many phases of construction under actual job conditions, which may include estimating, field engineering, inspecting, scheduling, and supervision. Students must register for the course during summer school and work a minimum of 40 hours per week for six (6) weeks to receive credit for the course. Students with verifiable construction experience of three (3) years or more may receive credit under this course listing. Verification will be through letters of recommendation from employer(s) on company letterhead and documented payroll receipts. Junior college transfer students who have completed an Associate Degree Program are required to complete one internship course.
- CMTE 413 Structural Design I Credit 3**
 This course covers theory and principles of the design of steel and timber structural elements and connections and their applications in construction. Lecture three hours. Prerequisite: CMTE 314.
- CMTE 414 Structural Design II Credit 3**
 This course covers the theory and principles of the design of reinforced concrete and masonry structural elements and their applications in construction. Lecture three hours. Prerequisite: CMTE 314.
- CMTE 425 Construction Management I Credit 3**
 This course covers the effective management and control to complete a construction project in accordance with the contract documents, within budget, on time, and safely. Topics discussed include professional ethics, project management principles, effective communications, cost engineering, management accounting, procurement, change orders, claims, value engineering, safety management, and computer applications. Lecture three hours. Prerequisites: CMTE 286, CMTE 312, and CMTE 342.
- CMTE 426 Construction Management II Credit 3**
 This course covers construction contract administration, organization and ethics; contract documents, their relationships, meanings and significance in construction; human relations and communications. Safety, health, and risk control are topics that are also included in this course. Lecture three hours. Prerequisite: CMTE 286, CMTE 425, CMTE 445.
- CMTE 445 Construction Estimating II Credit 3**
 This course covers the analysis and determination of costs of construction operations, including all the normal bid-preparation activities that take place in a constructor's estimating section. This course also includes construction cost accounting and control, microcomputer applications, and professional ethics. Lecture three hours. Prerequisites: CMTE 205 and CMTE 342.
- CMTE 454 Site Development Credit 3**
 This course covers market analysis and search, site selection criteria, zoning, deed restrictions, physical influences on land, use of information coming from personal interviews and printed information from city and county offices, and preliminary layout and design of selected projects. Lecture two hours; laboratory two hours. Prerequisites: CMTE 201, CMTE 214, and CMTE 312.
- CMTE 458 Senior Seminar Credit 2**
 This course covers selected construction problems by individuals or project teams. The course includes presentation of selected topics by students and construction industry representatives. Laboratory four hours. Prerequisite: Senior standing in Construction.

CMTE 499 Undergraduate Research in Construction Management Technology Credit 1-6
This course is designed for the junior-senior undergraduate student who has an interest in pursuing a special problem as an independent research project. An Independent Study Contract must be prepared and submitted for the Department Chair's approval within the first week of the semester. Student cannot take more than two 499 courses for a total of 6 credits. Prerequisite: Consent of the instructor and approval of the Department Chairman.

TECHNOLOGY EDUCATION

EDTE 100 First Year Experience Seminar Credit 1
This course provides an opportunity for students to make a seamless transition from high school to college. Essential skills for transition will be explored and discussed. The course will assist students in developing skills that will assist them in adjusting personally and socially to the college environment. First-year students will develop skills in critical thinking, information literacy, self-awareness, and communication to facilitate a successful transition. In addition, to providing information needed for student success at the University of Maryland Eastern Shore, this course serves as a conduit for students entering the fields of Technology. Lecture one hour. Prerequisite: None.

EDTE 111 Technology and Society Credit 3
This course examines the nature of technology and society within the context of the designed world: its meaning, application, significance, the role it has played in our history and its importance in today's technological society. Course content focuses on: the characteristics and scope of technology; the nature of technology within the context of the designed world; the design and development process; core concepts of technology; relationships and connections between technology and other fields; the cultural, social, economic, and political effects of technology; the effects of technology on the environment; and the role of society in the development and use of technology. Lecture three hours. Prerequisite: None.

EDTE 131 Computer-Assisted Drawing and Design I (CAD) Credit 3
The attributes of design, the engineering design process, and the basics of technical drawing are covered in this course. The design process is utilized to solve problems and design contemporary products. Basic technical drawing skills are developed, such as sketching, coordinate systems, the principles and theory of visualization, shape description, orthographic projection, basic descriptive geometry, axonometric drawings, and developments. Students use and apply computer-assisted drawing and design (CADD) software to produce basic technical drawings and three-dimensional designs. Engineering design and problem solving are used to research and develop renderings and solid three-dimensional models. Lecture two hours. Laboratory two hours. Prerequisite: None.

EDTE 132 Computer-Assisted Drawing and Design II (CAD) Credit 3
In this course advanced computer-assisted drawing and design software is used to produce three-dimensional drawings. Engineering design and problem solving are used to research and develop renderings and animated wire-frame, surface, and solid three-dimensional models. The use of libraries of pre-drawn materials is also covered. Lecture two hours; and laboratory two hours. Prerequisite: EDTE 131 or permission of instructor.

EDTE 211 Electrical and Electronics Technologies I Credit 3
This is a study of electricity and electronic technologies within the context of the designed world. Different systems and technologies are presented to provide an overview of how systems relate to technology. Technical concepts and principles of different types of circuits, laws, symbols, scientific principles, design and test equipment are analyzed and applied to electronic technological systems. Theories and principles applied to communication devices such as computers, cell phones, and audio systems are studied. Students design, build, test, and evaluate systems. Laboratory two hours. Prerequisites: PHYS 121 and MATH 110.

EDTE 212 Electrical and Electronics Technologies II Credit 3
This course provides an advanced study of AC circuits, inductance, capacitance, and resonance applied to communication devices such as computers. Emphasis is placed on power supplies, amplifiers, oscillators, receivers, and test equipment. Lecture two hours. laboratory two hours. Prerequisite: EDTE 211.

EDTE 232 Information and Communication Technologies Credit 3
This course covers transportation systems used to transport people and goods within the context of the design world. The design and operation of transportation systems and subsystems, governmental regulations, care of products and systems, design and operation of transportation systems, and the impact of transportation systems on society are studied. Lecture two hours. Laboratory two hours. Prerequisite: Junior standing.

EDTE 314 Biotechnology and Agricultural Technologies Credit 3
A study of techniques that use living organisms or parts of an organism to make or modify products to improve plants or animals, including humans, within the context of the designed world is covered in this course. Developing micro-organisms and agricultural products for specific uses is also examined. Medical technologies as related to biotechnology are infused through the course. Lecture two hours. Laboratory two hours. Prerequisite: BIOL 101.

EDTE 341 Transportation Technologies Credit 3
This course covers transportation systems used to transport people and goods. The design and operation of transportation systems and subsystems, governmental regulations, care of products and systems, design and operation of transportation systems, and the impact of transportation systems on society are studied. Lecture two hours, laboratory two hours. Prerequisite: Junior standing.

EDTE 342 Energy and Power Technologies Credit 3
The use and impact of energy and power systems within the context of the designed world are examined in this course. Such areas as power efficiency and conservation, energy sources, thermodynamics, renewable and non-renewable forms of energy, and alternate energy are studied. Technical aspects of systems design and development for solar energy, nuclear energy, wind energy, geothermal energy, hydro-energy and other sources are examined. Lecture two hours. Laboratory two hours. Prerequisite: EDTE 341.

EDTE 351 Construction Technologies Credit 3
The structures, systems, processes, and procedures of construction technologies are examined within the context of the designed world. Principles of construction, personnel management and organization, the design process, methods, materials, tools, and equipment used in building structures are studied. Prefabricated materials, infrastructures and renovation are additional topics covered. Lecture two hours, Laboratory two hours. Prerequisite: Junior standing.

EDTE 361 Manufacturing Technologies Credit 3
This course is a study of the principles of manufacturing goods, processes, and systems within the context of the designed world. Personnel management, organizational structures, durable and non-durable goods, product design, interchangeability, and product marketing are covered. Students research and select products suitable of mass-production using an enterprise system. Emphasis is placed on the manufacturing design process. The social, cultural and economic problems and benefits are also examined. Lecture two hours. Laboratory two hours. Prerequisite: Junior standing.

EDTE 368¹ Curriculum Development and Methods of Teaching I Credit 3
This course focuses on identifying course content, developing instructional plans, writing objectives, designing instructional strategies, and developing instructional materials for career and technology education courses. State and national content standards are used as a basis for curriculum design. This is the first of a two-course sequence which utilizes competency-based materials and authentic teaching experiences. Lecture three hours. Prerequisite: Permission of instructor.

EDTE 370¹ Curriculum Development and Methods of Teaching II Credit 3
A field-based internship in a public school under the supervision of an experienced mentor teacher and a university teacher educator is the basis for this course. Beginning teachers plan, develop, deliver, and assess competency-based instruction in their assigned area of teaching. Laboratory six hours. Prerequisite: EDTE 368.

EDTE 410 Foundations of Technology Credit 3
The course focuses on the development of knowledge, skills and dispositions regarding the following aspects of technology: its evolution, systems, core concepts, design, and utilization. It addresses the three dimensions of technological literacy: knowledge, ways of thinking and acting, and capabilities with the goal of students developing the characteristics of a technologically literate citizen. The course explores teaching/learning strategies that enable students to build their own understanding of new ideas. It examines strategies designed to engage students in exploring and makes use of a variety of assessment instruments to reveal the extent of understanding. The nature of a technology education experience with its performance-based instruction and assessment are explored with special attention given to the program's potential to invigorate student interest and achievement. Lecture three hours. Prerequisite: Senior standing or consent of the instructor.

EDTE 415 History and Principles of Career and Technology Education Credit 3
The history, purpose, goals, principles, and concepts of career and technology education are discussed in this course. Other topics include federal legislative acts, definition of terms, instructional programs, career clusters, administration of programs, and current trends. Lecture three hours. Prerequisite: Permission of instructor.

¹Career and Technology Education Certification course.

- EDTE 437¹ Student Performance Assessment Credit 3**
 This course teaches how to identify and utilize appropriate performance criteria to measure student achievement in the cognitive, psychomotor, and affective domains. A variety of assessment instruments is developed to document student mastery of instructional objectives. Topics covered include performance tests, rating scales, checklists, rubrics, student portfolio assessment, and grading systems. Lecture three hours. Prerequisite: Permission of instructor.
- EDTE 440¹ Integrating Math and Science in Occupational and Technical Education Credit 3**
 The purpose of this course is to provide teachers with techniques and methods to assist students in improving their math and science skills. Techniques and problem application will be covered for specific occupational/technical areas. Lecture three hours. Prerequisite: Permission of instructor.
- EDTE 445 American Industry and Global Competition Credit 3**
 This course is an examination of American business and industry in relation to current and future global economy trends. All aspects of the industry are covered, including planning, management, finance, technical and production skills, principles of technology, labor issues, community issues, and health, safety, and environmental issues. Lecture three hours. Prerequisite: Permission of instructor.
- EDTE 450¹ Mentoring: Expectations and Responsibilities Credit 3**
 Introduction to mentoring, selecting mentors, mentor/teacher responsibilities, teacher observation, problems of beginning teachers, mentoring techniques, assessment, and portfolio development are covered in this course. This course is designed to prepare experienced teachers that are interested in becoming mentors in their school system. Lecture three hours. Prerequisite: Permission of instructor.
- EDTE 467 Instructional Analysis and Curriculum Development Credit 3**
 This advanced curriculum design course covers how to design a standards-based unit of instruction based on an instructional analysis in a content area in order to develop curriculum materials. Students learn how to design, implement, and evaluate technology-oriented curriculum. Emphasis is placed on the integration and utilization of national and state content standards not only in Technology Education but also on academic areas such as math and science. Based on these standards and the backward mapping process, goals, objectives, indicators, student learning activities, instructional materials, and assessment instruments are designed. Lecture three hours. Prerequisite: Permission of instructor.
- EDTE 480 Coordination of Work-Based Learning Credit 3**
 Study of a variety of work-based learning programs will be covered including cooperative work-experience internships, mentorships, job shadowing, and apprenticeship. Mission, trends and current practices in these programs will be discussed. Methods and techniques of coordination in comprehensive and part-time programs at the secondary and adult levels are covered. Prerequisite: Senior standing or consent of instructor.
- EDTE 481 Facilities Organization and Management Credit 3**
 Basic elements of designing, creating, and managing Technology Education learning environments, both classroom and laboratory facilities, are covered in this course. Room layout, selection of tools, supplies, equipment, safety and layout arrangements will be studied. Modular lab design and management will be examined. Lecture three hours. Prerequisite: Senior standing.
- EDTE 482 Core Technologies I Credit 3**
 The core technologies are the building blocks of all technology systems within the context of the designed world. Mechanical and structural technologies will be examined with regard to common components, simple controls, basic system design, safety, and applications. Students will design, build, operate, and analyze a technological model, prototype or simulation related to the core technologies. An overview of materials technology will include an examination of ferrous and non-ferrous materials, common industrial forms, and the primary and secondary processing of industrial materials. Topical investigations and modular activity packages will be utilized to enhance understanding of the core technologies. Lecture two hours. Laboratory two hours. Prerequisite: Senior standing or permission of instructor.

¹Career and Technology Education Certification course.

ETEE 355 Advanced Electronic and Computer Networks Credit 3
This is an introductory course in electronic circuits for computers that covers number systems, computer organization, assembly language programming, microprocessors, system components and interfacing concepts. Lecture two hours; laboratory two hours. Prerequisite: ETEE 335.

ETEE 421 Instrumentation and Measurements Credit 4
This course will focus on the fundamental concepts of mechanical and electronic measurement of distance, velocity, acceleration, time, pressure, force, strain. The course is also an introduction to development of measuring systems and calibration of these systems and the application of measuring systems to industrial technology. Lecture two hours; laboratory four hours. Prerequisites: Senior standing, CSDP 220, ETEE 202 and MATH 112.

ETEE 425 Communication and Microwave Technology Credit 3
The course will cover the basics of electronic communication technology, digital communication, codes, serial interfaces, error detection, data link control, protocol, networking and network topology. Lecture two hours. Laboratory two hours. Prerequisites: Permission of instructor and MATH 211.

ETEE 474 Nuclear Fundamentals Credit 3
This course will focus on the basic theory related to the nuclear energy complex, nuclear reactor design, isotopic and chemical separations and computer applications in problem solving. Lecture three hours. Prerequisites: Permission of the instructor and Senior standing.

ETEE 485 Design Technology I Credit 3
This course will focus on the design process, including creativity, analysis, synthesis, and decision-making. It will also cover applications of analytical techniques, experimental results and individual or group design projects, emphasizing the synthesis of a design solution to meet performance specifications. Lecture three hours. Prerequisites: ETEE 335, ETEE 421 and Senior standing.

ETEE 486 Design Technology II Credit 3
This course will focus on individual or group design projects requiring the synthesis of analytical, experimental and manufacturer's data for the development of an electronic system. The course will require execution of the design in sufficient detail to permit construction and testing or evaluation of a prototype, model, or mock-up and consideration of reliability, safety, human factors, and economics of production. Computer applications will be required. Lecture one hour; laboratory four hours. Prerequisites: CSDP 220 and ETEE 485.

ETEE 499 Undergraduate Research in Electrical/Electronic Engineering Technology Credit 1-6
This course is designed for the junior-senior undergraduate student who has an interest in pursuing a special problem as an independent research project. An Independent Study Contract must be prepared and submitted for the Department Chair's approval within the first week of the semester. Student cannot take more than two 499 courses for a total of 6 credits. Prerequisite: Consent of the instructor and approval of the Department Chair.

MECHANICAL ENGINEERING TECHNOLOGY

ETME 301 Thermodynamics and Heat Power Credit 3
This course covers the basic laws of thermodynamics and properties of fluids. Applications of the first and second laws of thermodynamics in the analysis of basic heat engines and their cycles used in power generation will also be covered. Lecture three hours. Prerequisites: CHEM 111, MATH 211 and PHYS 122.

ETME 303 Machine Design I Credit 3
This course covers design and selection of machine elements, power transmissions, shafts, couplings, keys, threaded fasteners, belts, rivets, welding, lubrication, and sleeve bearings with roller bearings. Lecture three hours. Prerequisites: CMTE 314 and MATH 112.

ETME 304 Machine Design II Credit 3
This course covers the design and selection of machine elements, including chain drives, hoists and conveyors, brakes, clutches, power screws, gears, cams, springs, and fly wheels. Lecture three hours. Prerequisite: ETME 303.

ETME 318 Applied Dynamics Credit 3
This course covers systems of heavy particles and rigid bodies at rest and in motion, rectilinear motion, curvilinear motion, rotation, plane motion, work, energy, power, impulse, and momentum. Lecture three hours. Prerequisites: CMTE 313 and MATH 211.

ETME 325 Engineering Materials Credit 3

This course covers the nature, properties, and behavior of materials used in engineering applications. Materials studied include metals, plastics, polymers, and composites. The production of metals, heat treatment, and powder metallurgy will also be covered. Lecture three hours. Prerequisites: CHEM 111, MATH 112, and PHYS 122.

ETME 342 Fluid Mechanics Credit 3

This course covers fluid flow concepts and basic equations, laminar and turbulent flow, flow in pipes and open channels, energy and momentum equations, Bernoulli's equation, principles of flow measurements and instrumentation, fluid power, and machinery. Lecture two hours; laboratory two hours. Prerequisites: CMTE 313 and MATH 211.

ETME 356 Manufacturing Processes Credit 3

This course covers modern industrial metal working and fabrication processes. Machines and tools used in these processes are also covered. Additionally, study includes casting, welding, cold and hot working, metal cutting processes, and quality control. Lecture two hours; laboratory two hours. Prerequisites: MATH 110 and PHYS 122.

ETME 360 CNC Machines and Programming Credit 3

This course covers principles of numerical control, Computer Numerically Controlled (CNC) machines used in production, CNC machine capabilities, and point to point programming using G-codes and auxiliary machine control functions. Computer assisted design and computer assisted CNC machine programming are also studied. Lecture two hours; laboratory two hours. Prerequisites: CSDP 220, ETME 356 and MATH 110.

ETME 381 Instrumentation and Measurements Credit 4

This course covers the fundamental concepts of mechanical and electronic measurements of distance, velocity, acceleration, time, pressure, temperature, force, strain, and flow. Measurement systems, and application of selected instruments, with emphasis on interpretation of results are also studied. Lecture three hours; laboratory two hours. Prerequisites: CSDP 220, ETEE 202 and MATH 112.

ETME 395 Industrial Practice Credit 3

This course requires work experience practice in a Mechanical Engineering Technology related field. A minimum of 10 weeks of employment is required. The supervisor of the student must submit a confidential performance evaluation letter for the work done by the student to the faculty advisor. Students must register for the course before commencement of industrial practice for proper credit. Prerequisite: Prior approval of the faculty advisor.

ETME 423 Heating, Ventilating, and Air Conditioning Credit 3

This course covers heat loss, heat gain, the control of temperature and humidity in buildings, and the basics of designing heating, ventilating and air conditioning systems, including sizing of pipes and ducts. Selection of HVAC equipment is also covered. Lecture two hours; laboratory two hours. Prerequisites: EDTE 132, ENGL 305, MATH 112 and PHYS 122.

ETME 445 Computer Integrated Manufacturing Credit 3

This course covers principles of computer integrated manufacturing, system integration and architecture, data base development, interfaces, hardware and software requirements, communication protocols and programming. Lecture three hours. Prerequisites: CSDP 220 and ETME 356.

ETME 475 Mechanical Systems Design I Credit 3

This course covers the design process; creativity, analysis, synthesis, and decision making, applications of analytical techniques and experimental results, and individual or group projects emphasizing the synthesis of a design solution to meet performance specifications. Use of computers in design and drafting will be required. Lecture two hours. Laboratory two hours. Prerequisites: Senior standing, CSDP 220, ETME 303 and MATH 211.

ETME 476 Mechanical Systems Design II Credit 3

This course covers advanced individual or group design projects requiring the synthesis of analytical, experimental, and manufacturer's data for development of the design in sufficient detail to permit construction and testing or evaluation of prototype, model, or mock-up. Consideration of reliability, safety, human factors, and economics of construction are also covered. Use of computers in design and drafting will be required. Lecture two hours. Laboratory two hours. Prerequisite: ETME 475.

ETME 499 Undergraduate Research in Mechanical Engineering Technology Credit 1-6

This course is designed for the junior-senior undergraduate student who has an interest in pursuing a special problem as an independent research project. An Independent Study Contract must be prepared and submitted for the Department Chair's approval within the first week of the semester. Student cannot take more than two 499 courses for a total of 6 credits. Prerequisite: Consent of the instructor and approval of the Department Chair.

DIRECTORY OF FACULTY

- Arumala, Joseph**..... **Professor**
 B.S., University of Lagos; M.S., Ph.D.; Clemson University, P.E.
- Bahramian, Bahram** **Lecturer and Director**
Construction Management Technology Program at the Universities at Shady Grove
 MBA, University of Dayton; Ph.D., Civil Engineering, University of Birmingham, England
- Copeland, Sr., Leon L**..... **Professor and Chair**
 B.S., Norfolk State University; M.Ed., Virginia State University; Ed.D, Virginia Polytechnic Institute and State University
- Day, Gerald F.**..... **Professor and Coordinator**
Career and Technology Education Graduate Program at the Baltimore Museum of Industry
 B.S., State University of New York; M.Ed., and Ph.D., University of Maryland College Park
- Fotouhi, Kenny M.**..... **Professor**
 B.S., Tehran Polytechnic; M.S., Oklahoma State University; Ph.D., University of Missouri-Rolla
- Molavi, Jeffrey M.**..... **Assistant Professor**
 B.S. National University of Tehran, M.S. and Ph.D., University of Colorado
- Salgado, Carlos A.**..... **Assistant Professor**
 B.S., National Autonomous University of Nicaragua; M.S., Ohio State University; Ph.D., University of Maryland
- Yilmaz, Emin**..... **Professor**
 B.S. and M.S., Middle East Technical University, Turkey; Ph.D., University of Michigan, P.E.

DEPARTMENT OF EXERCISE SCIENCE

<http://www.umes.edu/SPHP/>

Dr. James E. Heimdahl, Chairperson

MISSION

The Mission of the Department of Exercise Science is to prepare students in the field of Exercise Science. The Exercise Science major is designed to satisfy the professional needs of the students desiring an in-depth study of the impact of exercise and sport on the mental and physiological development of human beings.

OBJECTIVES

The objectives of the programs offered in Exercise Science are to:

1. Offer instruction which reflects the Mission, Goals and Objectives of the University of Maryland Eastern Shore.
2. Meet the academic requirements established by the Department of Exercise Science and the University of Maryland Eastern Shore.
3. Provide courses and learning experiences which prepare students, including ethnic minorities, for employment and leadership positions in health/fitness, exercise science, allied health and the sport industry.
4. Provide an intellectual environment designed to facilitate students' academic growth, intellectual curiosity, research capacity and professional creativity.
5. Provide opportunities for students to acquire and to effectively utilize technology of the twenty-first century as working professionals in the health and exercise science professions.
6. Prepare students for graduate school and continued professional development.
7. Obtain disciplinary accreditation by meeting the Professional Standards required by the Commission on Accreditation of the Allied Health Education Programs (CAAHEP) for Allied Health Education Programs and by the National Strength and Conditioning Association (NSCA).
8. Provide course offerings and professional programs to the University and the general community.

DEGREES OFFERED

Bachelor of Science – Exercise Science

GENERAL PROGRAM REQUIREMENTS

The purpose of the Exercise Science Program is to develop competent professionals in the field of exercise science and to contribute to graduate entry –level studies by providing quality academic preparation that incorporates both classroom and supervised practical experiences. The admission of students to the undergraduate program in the Department of Exercise Science is based upon the general requirements of the University. Students must complete a total of 54 hours of Required Major Courses.

DEPARTMENTAL REQUIREMENTS

Exercise Science majors must complete a minimum of 120 credit hours of University courses. The program offers two Options: Clinical and Health/Fitness. Each Option possesses its own criteria for the Exercise Science degree.

Clinical Option - Majors must complete a minimum of 120 credit hours of University courses. Included in the 120 hours are a minimum of 42 credit hours of General Education Requirements; 28 credit hours of support courses and 50 credit hours of Program and Professional courses.

Health/Fitness Option - Majors must complete a minimum of 120 credit hours of University courses. Included in the 120 hours are a minimum of 42 credit hours of General Education Requirements; 24 credit hours of Support Courses and 54 credit hours of Program and Professional courses.

Students must select nine (9) credits total of GEN ED CURR AREA I: Arts and Humanities. Students must select from the following courses:

ARRS 101¹ or ENGL 203 GEN ED CURR AREA I:B.
MUSI 101¹

CAREER OPPORTUNITIES

The major in Exercise Science prepares graduates to work as exercise specialist and/or within the management of community health/fitness programs, hospitality/wellness programs, message therapy, sport medicine and the sport industry. Many of our students delay entering their careers until completion of a graduate degree in Exercise Science.

CLINICAL OPTION

The Clinical Option prepares students seeking careers in physical therapy and occupational therapy. It also prepares graduates for careers in related areas such as message therapy, chiropractic, cardiac rehabilitation, sports medicine and physician assistant.

DEPARTMENTAL REQUIREMENTS

Students must complete a minimum of 120 credit hours of University courses. Included in the 120 hours are a minimum of 42 credit hours of General Education Requirements; 28 credit hours credit hours of Support Courses and 50 credit hours of Program and Professional courses.

COMMON REQUIRED COURSES

EXSC 103	EXSC 121	EXSC 151	EXSC 341
EXSC 104	EXSC 122	EXSC 163	
EXSC 105			
EXSC 107			

REQUIRED MAJOR COURSES

EXSC 200	EXSC 301	EXSC 355	EXSC 445
EXSC 202	EXSC 302	EXSC 360	EXSC 455
	EXSC 311	EXSC 365	EXSC 464
	EXSC 312	EXSC 382	EXSC 475
	EXSC 332		EXSC 490
	EXSC 333		
	EXSC 355		
	EXSC 360		
	EXSC 365		
	EXSC 382		

¹Students must select either ARTS 101 or MUSI 101.

**CURRICULUM GUIDE FOR EXERCISE SCIENCE
(CLINICAL OPTION)**

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 111	3	BIOL 112	3
BIOL 113	1	BIOL 114	1
ENGL 101	3	ENGL 102	3
EXSC 100	1	EXSC 111 ¹	3
MATH 110	3	EXSC 200	3
SOCI 101	3	PSYC 200	3
ARTS 101 or		ENGL 002	<u>0</u>
MUSI 101	<u>3</u>		16
	17		

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 231	3	BIOL 232	3
BIOL 233	1	BIOL 234	1
ENGL 203	3	ENGL 305	3
EXSC 311	3	EXSC 202	3
EXSC 312	1	EXSC 301	<u>3</u>
EXSC 302	3		13
GEN ED CURR AREA I ²	<u>3</u>		
	17		

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CHEM 111	3	PHYS 122	3
CHEM 113	1	PHYS 124	1
PHYS 121	3	CHEM 112	3
PHYS 123	1	CHEM 114	1
EXSC 332	3	EXSC 355	3
EXSC 333	1	EXSC 360	3
EXSC 382	<u>3</u>	EXSC 445	<u>3</u>
	15		17

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 301	3	EXSC 464	3
BIOL 303	1	EXSC 365	3
EXSC 455	3	EXSC 490 ³	<u>6</u>
EXSC 475	3		12
PSYC 305	<u>3</u>		
	13		

Total Credit Hours: 120

¹EXSC 111 cannot be repeated for credit.

²Students must select course from GEN ED CURR AREA I:B

³Students must complete 180 hours of Internship.

HEALTH/FITNESS OPTION

The Health/Fitness Option prepares graduates to work as exercise specialist and/or within the management of community health/fitness programs, hospital/wellness programs, message therapy, sport medicine and the sport industry. Many of our students delay entering their careers until completion of a graduate degree in exercise science or sport management. Students must complete a total of 54 hours of Required Major Courses.

DEPARTMENTAL REQUIREMENTS

Health/Fitness Option - Majors must complete a minimum of 120 credit hours of University courses. Included in the 120 hours are a minimum of 42 credit hours of General Education Requirements; 24 credit hours of Support Courses and 54 credit hours of Program and Professional courses.

REQUIRED MAJOR COURSES

EXSC 200	EXSC 301	EXSC 352	EXSC 445
EXSC 202	EXSC 302	EXSC 355	EXSC 455
EXSC 222	EXSC 311	EXSC 360	EXSC 464
	EXSC 312	EXSC 365	EXSC 475
	EXSC 332	EXSC 382	EXSC 490
	EXSC 333		

**CURRICULUM GUIDE FOR EXERCISE SCIENCE
(HEALTH/FITNESS OPTION)**

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 111	3	BUAD 132	3
BIOL 113	1	ENGL 102	3
ENGL 101	3	EXSC 111 ¹	3
EXSC 100	1	EXSC 200	3
MATH 109	3	PSYC 200	3
SOCI 101	3	ENGL 001	<u>0</u>
ARTS 101 or MUSI 101	<u>3</u>		15
	17		

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 231	3	BIOL 232	3
BIOL 233	1	BIOL 234	1
ENGL 203	3	BUED 212	3
EXSC 311	3	EXSC 202	3
EXSC 312	1	EXSC 301	3
EXSC 302	3	EXSC 222	<u>1</u>
GEN ED CURR AREA I ²	<u>3</u>		14
	17		

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
CHEM 111	3	BUAD 213	3
CHEM 113	1	ACCT 201	3
EXSC 332	3	EXSC 355	3
EXSC 333	1	EXSC 445	3
EXSC 352	3	EXSC 360	<u>3</u>
EXSC 382	<u>3</u>		15
	14		

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 305	3	EXSC 464	3
PHYS 101	3	EXSC 365	3
PHYS 103	1	EXSC 490 ³	<u>6</u>
BUAD 304	3		12
EXSC 455	3		
EXSC 475	<u>3</u>		
	16		

Total Credit Hours: 120

¹EXSC 111 cannot be repeated for credit.

²Students must select course from GEN ED CURR AREA I:B

³Students must complete 180 hours of Internship.

COURSE DESCRIPTION IN EXERCISE SCIENCE

- EXSC 100 First Year Experience Seminar Credit 1**
The course provides an opportunity for students to make a seamless transition from high school to college. Essential skills for transition will be explored and discussed. This course will assist students in developing cognitive skills and in adjusting personally and socially to the college environment. Additionally this course shall facilitate self-awareness and interpersonal communication. Required of all first year students. The course is taken by Exercise Science majors in lieu of GNST 100.
- EXSC 103 Beginning Karate/Self-Defense Credit 2**
This course gives students a comprehensive exposure to the fundamental techniques and procedures necessary for competently performing martial arts skills; this exposure includes students' demonstration of physical, mental and psychological skills which are inherent components of martial arts.
- EXSC 104 Women's Health Credit 3**
This course is designed to help students understand the changes that have occurred historically in society's attitude toward women and to gain a deeper understanding of their anatomy and physiology. The course helps the student to develop an awareness and become more knowledgeable regarding diseases and health problems that affect women specifically, and learning how to prevent these diseases.
- EXSC 105 Aerobic Dance and Conditioning Credit 2**
This course will stress accessing, developing, and maintaining physical fitness through aerobic exercise and dance.
- EXSC 107 Human Sexuality Credit 2**
This course provides students with an overview of the many biological, psychological, sociological, and historical dimensions of sexuality in a nonjudgmental tone. The main emphasis will be helping students make responsible decisions that promote healthy sexual behaviors and well-being
- EXSC 111 Personal Health and Fitness Credit 3**
This course studies the principles and practices that affect human health. Emphasis is on physical fitness, stress management, nutrition, and weight control with specific personalized techniques for optimizing health. The course can be repeated for credit. Students should select the course they desire as indicated by the topic. Satisfies GEN CURR AREA VI.
- EXSC 121 Beginning Swimming Credit 2**
Basic skills of swimming are taught in this class; including adjustment to the water, buoyancy, floating, propulsion through the water involving coordination of arms and legs in stroking, combined with breathing and safety.
- EXSC 151 Beginning Golf Credit 2**
This course is designed to provide students with the skills, rules, techniques and terminology of golf.
- EXSC 200 Introduction to Exercise Science Credit 3**
This course is an overview of the field of Exercise Science; its development, professional activities and sub-disciplines.
- EXSC 202 Personal and Community Health Credit 3**
Designed to develop attitudes and practices which contribute to better individual and group health. Emphasis is placed upon major health problems of early adulthood.
- EXSC 222 Intermediate Swimming Credit 1**
This course is a continuation of techniques of elementary swimming with emphasis on the development of skills in the basic or standard swimming strokes.
- EXSC 301 Measurements in Exercise Science Credit 3**
This course studies the use and interpretation of basic statistical techniques in the application of Exercise Science. Including measures of central tendency, variability, graphic representation, large sample, error theory and simple correlation analysis as applied particularly in evaluation of test material.
- EXSC 302 Sport Medicine and First Aid Credit 3**
Prevention, treatment and rehabilitation of athletic injuries and First Aid procedures are studied in the course
- EXSC 311 Kinesiology Credit 3**
This course is an analysis of movement based on a knowledge of anatomy and physiology as applied to the function of body mechanics.

EXSC 312	Kinesiology Lab	Credit 1
This course is the laboratory component of EXSC 311--Applied Anatomy and Kinesiology.		
EXSC 332	Exercise Physiology	Credit 3
Basic human physiology with emphasis on the physiological changes and residues of exercise are studied in this course. Tit is to be concurrent with EXSC 333. Prerequisite: BIOL 232.		
EXSC 333	Exercise Physiology Lab	Credit 1
The Exercise Physiology laboratory experience provides students with an opportunity to measure and evaluate selected physiological parameters.		
EXSC 341	First Aid	Credit 2
Lectures, discussions, and practical demonstrations of American Red Cross methods in First Aid are studied.		
EXSC 352	Exercise and Sport Physiology	Credit 3
This course is an in-depth study, comparison and analysis of human behavior while participating in sport and physical activity.		
EXSC 355	Exercise Testing and Prescription	Credit 3
This course provides an understanding of individualized exercise prescription design in programs to develop and maintain physical fitness through testing and re-evaluation strategies. Prerequisite: EXSC 311.		
EXSC 360	Exercise and Sport Nutrition	Credit 3
This course provides students with a key to understanding interactions between nutrition and exercise concepts as well as practical applications.		
EXSC 365	Contemporary Issues in Exercise Science and Sports	Credit 3
Students will have opportunities to investigate and learn first-hand information about developing issues in Exercise Science. Examples of the issues include: youth fitness, youth sports, sports for the aged, resistance training for prepubescent athletes, demographics of aging and physiology of aging.		
EXSC 382	Socio-Cultural Analysis of Sports	Credit 3
This course is an analyses of sports and exercise in social-cultural contexts. Topics include professional sports, intercollegiate sports, youth sports, violence in sports, gender & sports, ethnicity and sports, and media and sports.		
EXSC 445	Health Aspects of Aging	Credit 3
This course provides an understanding of the health aspects of aging as it pertains to the biological, physiological, psychological and sociological factors in mature adults.		
EXSC 455	Health Fitness Management	Credit 3
This course is an in-depth study of Allied Health Facilities design and management. Practical experiences in operational procedures, marketing, analyst budgeting and public safety issues will be discussed.		
EXSC 464	Adult Health Fitness Programming	Credit 3
This course is designed to instruct individuals in implementation of health fitness programs and management of the various facilities, which includes fitness management.		
EXSC 475	Advanced Strength and Conditioning	Credit 3
Procedures to strengthen and condition individuals in aerobic and anaerobic activities will be discussed. Exercise models, performance evaluations, exercise equipment, training ethics, and professional development are discussed.		
EXSC 490	Internship in Exercise Science	Credit 6
A structured off-campus learning experiences is designed to provide students with a terminal professional experience that permits first-hand, direct practical and professional experiences in Exercise Science. Prerequisite: Senior status with approval of Department Chairperson. Student may not exceed 12 semester hours during the semester in which they complete their professional internship experience.		
EXSC 499	Independent Study in Exercise Science	Credit 1-3
This course will provide senior students with opportunities to engage in in-depth-study of any professional area or related areas germane to Exercise Science. Prerequisite: Senior or Junior academic standing and permission of the Department Chairperson.		

DIRECTORY OF FACULTY

Hall, Kirkland **Assistant Professor**
B.S., University of Maryland Eastern Shore; M.A., Ohio State University

Heimdal, James **Associate Professor and Chairperson**
B.S., Tulane University; M.Ed., University of New Orleans; Ph.D., University of Southern Mississippi

Nelson, Beatrice..... **Lecturer**
B.S., St. Augustine College; M.A., Florida A&M University

DEPARTMENT OF PHYSICIAN ASSISTANT

<http://www.umes.edu/SHP/>

Mrs. Darlene L. Jackson-Bowen, Chairperson

MISSION

As a component of an 1890 Land Grant University, the UMES Physician Assistant Department is committed to providing educational opportunity to all qualified students, particularly those from diverse, medically underserved and under-represented populations, who aspire to become Physician Assistants.

OBJECTIVES

The objectives of the Physician Assistant program are to:

1. Offer a didactic and clinical curriculum to educate Physician Assistant students to perform evaluative, diagnostic, therapeutic, preventive, and health maintenance services to diverse communities and populations.
2. Prepare graduates to provide compassionate quality health care with the direction and responsible supervision of a Doctor of Medicine or Osteopathy.
3. Prepare students to analyze and critically interpret information and to formulate appropriate clinical decisions;
4. Expose students to the breadth and depth of academic knowledge and experiences necessary to achieve the mastery of skills and techniques as a physician assistant.
5. Develop and support a cadre of competent faculty, staff, students and alumni dedicated to excellence in scholarly productivity, research, and community service that will provide solutions to the challenging health care issues which impact local, national and international communities.

DEGREES OFFERED

Bachelor of Science - Physician Assistant

GENERAL PROGRAM REQUIREMENTS

The admission of students to the undergraduate programs in the Department of Physician Assistant is based upon the general admission requirements of the University.

Admission into the Professional Phase of Physician Assistant requires a separate application. Interested applicants must complete the following:

1. Submit a UMES Physician Assistant Program application that can be located at www.umes.edu/pa.
2. Submit a 3-5 page autobiography.
3. Submit a 1-3 page essay: "PA as a career choice".
4. Submit two Official Transcripts—submit one copy to the Office of the Registrar and submit the second to the Physician Assistant Department.

Incomplete applications will not be considered.

DEPARTMENTAL REQUIREMENTS

The Physician Assistant Department requires that all students maintain at least a "C" in each didactic and clinical course, a 2.5 GPA in the program core, program electives, general education and supportive course requirements. Students entering the professional program are required to meet the 3.0 cumulative GPA, in addition to a 3.0 cumulative GPA in Math and the Natural Sciences, and the physical, mental and social technical standards necessary to become a competent physician assistant. A grade of "B" or better is required for clinical year courses—PHAS 400-418.

CAREER OPPORTUNITIES

Physician assistants held about 66,000 jobs in 2006. The number of jobs is greater than the number of practicing PAs because some hold two or more jobs. For example, some PAs work with a supervising physician, but also work in another practice, clinic, or hospital. According to the American Academy of Physician Assistants, about 15 percent of actively practicing PAs worked in more than one clinical job concurrently in 2006.

More than half of the jobs for PAs were in the offices of physicians, and about a quarter were in hospitals, public or private. The rest were mostly in outpatient care centers, including health maintenance organizations; the Federal Government; and public or private colleges, universities, and professional schools. A few were self-employed. Employment is expected to grow much faster than the average as health care establishments increasingly use physician assistants to contain costs. Job opportunities for PAs should be good, particularly in rural and inner city clinics, as these settings typically have difficulty attracting physicians.

Employment Change: Employment of physician assistants is expected to grow 27 percent from 2006 to 2016, much faster than the average for all occupations. Projected rapid job growth reflects the expansion of health care industries and an emphasis on cost containment, which results in increasing use of PAs by health care establishments.

Physicians and institutions are expected to employ more PAs to provide primary care and to assist with medical and surgical procedures because PAs are cost-effective and productive members of the health care team. Physician assistants can relieve physicians of routine duties and procedures. Telemedicine—using technology to facilitate interactive consultations between physicians and physician assistants—also will expand the use of physician assistants.

Besides working in traditional office-based settings, PAs should find a growing number of jobs in institutional settings such as hospitals, academic medical centers, public clinics, and prisons. PAs also may be needed to augment medical staffing in inpatient teaching hospital settings as the number of hours physician residents are permitted to work is reduced, encouraging hospitals to use PAs to supply some physician resident services.

Job Prospects: Job opportunities for PAs should be good, particularly in rural and inner-city clinics because those settings have difficulty attracting physicians. In addition to job openings from employment growth, openings will result from the need to replace physician assistants who retire or leave the occupation permanently during the 2006-16 decade. Opportunities will be best in States that allow PAs a wider scope of practice, such as allowing PAs to prescribe medications.

COMMON REQUIRED COURSES

BIOL 231	BUED 212	CHEM 211	PHAS 411
BIOL 232	MATH 210	CHEM 213	PHAS 412
BIOL 233			PHAS 413
BIOL 234			PHAS 415
BIOL 301			PHAS 416
BIOL 303			PHAS 417
			PHAS 418

REQUIRED MAJOR COURSES

PHAS 200	PHAS 300	PHAS 310	PHAS 400
PHAS 201	PHAS 301	PHAS 311	PHAS 401
	PHAS 302	PHAS 312	PHAS 402
	PHAS 303	PHAS 313	PHAS 403
	PHAS 304	PHAS 314	PHAS 404
	PHAS 305	PHAS 315	PHAS 405
	PHAS 306	PHAS 316	PHAS 406
	PHAS 307	PHAS 317	PHAS 407
	PHAS 308		PHAS 408
	PHAS 309Hybrid		PHAS 409
			PHAS 410

ELECTIVE SUB-SPECIALITY CLERKSHIPS^{1,2}

PHAS 411	PHAS 415	PHAS 413	PHAS 417
PHAS 412	PHAS 416	PHAS 414	PHAS 418
			PHAS 419

¹Clerkships may occur in any order. Elective sub-specialty clerkship is to be chosen by the student with assistance and approval of semester hours for five (5) weeks.

²A grade of "B" or better is required is required for clinical year courses—PHAS 400-418.

CURRICULUM GUIDE FOR PHYSICIAN ASSISTANT

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 111	3	GEN ED CURR AREA I	3
BIOL 113	1	BIOL 301	3
BUED 212	3	BIOL 303	1
CHEM 111	3	CHEM 112	3
CHEM 113	1	CHEM 114	1
ENGL 101	3	EXSC 111 ¹	3
PHAS 188	1	ENGL 102	<u>3</u>
MATH 110 or Higher	<u>3</u>		17
	18		

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
GEN CURR AREA I	3	BIOL 232	3
BIOL 231	3	BIOL 234	1
BIOL 233	1	MATH 210Hybrid	3
CHEM 211	3	ENGL 305/H/Online or	
CHEM 213	1	ENGL 310/H/Online	3
ENGL 203	3	PHAS 201	1
SOCI 101	<u>3</u>	PHAS 302	3
	17	PSYC 200	<u>3</u>
			17

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
PHAS 200	1	PHAS 303	2
PHAS 300	3	PHAS 304	3
PHAS 301	3	PHAS 305	3
PHAS 311	3	PHAS 308	2
PHAS 312	3	PHAS 313	3
PHAS 315	<u>2</u>	PHAS 316	<u>2</u>
	15		15

<i>Third Semester²</i>	<i>Credit</i>
PHAS 306	3
PHAS 307	3
PHAS 309Hybrid	2
PHAS 310	2
PHAS 314	1
PHAS 317	<u>3</u>
	14

SENIOR YEAR

<i>Winter Semester</i>	<i>Credit</i>
PHAS 400	<u>4</u>
	4
<i>Spring Semester</i>	<i>Credit</i>
PHAS 401	4
PHAS 402	4
PHAS 403	1
PHAS 406	<u>4</u>
	13

¹EXSC 111 cannot be repeated for credit.

²Third Semester in Junior Year indicates the Fall of the next year.

<i>Summer Session</i>	<i>Credit</i>
PHAS 404 ²	1
PHAS 407 ²	4
PHAS 408 ²	<u>4</u>
	9

<i>Fall Semester</i>	<i>Credit</i>
PHAS 405 ²	1
PHAS 409 ²	4
PHAS 410 ²	4
PHAS 411-19 ²	<u>4</u>
	13

Total Credit Hours: 152

¹Elective Sub-Specialty Clerkships: PHAS 411; PHAS 412; PHAS 413; PHAS 414; PHAS 415; PHAS 416; PHAS 417; PHAS 418. Clerkships may occur in any order; an elective sub-specialty clerkship may be chosen by the student with assistance and approval of the department. Each clerkship is for four (4) semester hours for five (5) weeks.

²A grade of "B" or better is required is required for clinical year courses—PHAS 400-418.

COURSE DESCRIPTIONS IN PHYSICIAN ASSISTANT

- PHAS 188** **Credit 1**
This course provides an opportunity for students to make a seamless transition from high school to college. Essential skills for transition will be explored and discussed. This course will assist students in developing cognitive skills and will assist them in adjusting personally and socially to the college environment. Additionally, this course shall facilitate self-awareness and interpersonal communication. Requirement for all Freshmen. This course is taken by Pre-Physician Assistant majors in lieu of GNST 100.
- PHAS 200** **Introduction to Physician Assistant** **Credit 1**
This course focuses on the history, present practices, and future trends of the profession.
- PHAS 201** **Medical Terminology/Online** **Credit 1**
This course is designed in a web-based programmed format to introduce the learner to a systematic approach to mastering medical and scientific vocabulary.
- PHAS 300** **Advanced Anatomy** **Credit 3**
This course is an in-depth study of the structure of the entire human body, utilizing lectures, cadaver dissection, and clinical correlation for the medical practitioner. Prerequisites: Departmental consent and/or admission to Professional Program. BIOL 111, BIOL 113, BIOL 231, BIOL 232, BIOL 233, BIOL 234, BIOL 301, BIOL 303.
- PHAS 301** **Physiology** **Credit 3**
This course involves the examination of the mechanisms involved in control of body functions. The basic chemical and physical principles of human function are discussed. Prerequisites: Departmental consent and/or admission to Professional Program. BIOL 111, BIOL 113, BIOL 231, BIOL 232, BIOL 233, BIOL 234, BIOL 301, BIOL 303.
- PHAS 302** **Clinical Chemistry** **Credit 3**
This course examines the chemical and molecular control and reactions in the human body. Clinical correlations of various biochemical parameters measured in body fluids under a variety of abnormal conditions are considered. Prerequisites: Departmental consent and/or admission to Professional Program. CHEM 111, CHEM 112, CHEM 113, CHEM 114, CHEM 211, CHEM 213.
- PHAS 303** **Clinical Laboratory Procedures** **Credit 2**
This course applies scientific laboratory methods to diagnostic and therapeutic problems of clinical medicine; it focuses on the enhancement of diagnostic accuracy, as well as how to monitor a patient's response to therapy and order Lab. tests in a timely, appropriate, and cost effective manner. Prerequisites: Departmental consent and/or admission to Professional Program. PHAS 300, PHAS 301, PHAS 311, PHAS 312, PHAS 315.
- PHAS 304** **Clinical Medicine I** **Credit 3**
This course provides a systematic analysis of major diseases encountered in primary care medicine by utilizing an organ systems approach. Emphasis is placed on etiology, Pathophysiology, and the presentation, diagnosis, management, and prevention of diseases. Prerequisites: Successful completion of PHAS 300 and PHAS 301, departmental consent and/or admission to Professional Program. PHAS 300, PHAS 301, PHAS 311, PHAS 312, PHAS 315.
- PHAS 305** **Clinical Medicine II** **Credit 3**
This course is a continuation of Clinical Medicine I. Prerequisites: Successful completion of PHAS 300 and PHAS 301, Departmental consent and/or admission to Professional Program. PHAS 300, PHAS 301, PHAS 311, PHAS 312, PHAS 315.
- PHAS 306** **Clinical Medicine III** **Credit 3**
This course addresses the etiology, presentation, diagnosis, and management of diseases most prevalent in Pediatrics, Obstetrics and Gynecology, and Geriatric subspecialties. Prerequisites: Successful completion of PHAS 304 and PHAS 305, Departmental consent and/or admission to Professional Program. PHAS 304, PHAS 305.
- PHAS 307** **Clinical Medicine IV** **Credit 3**
This course addresses the etiology, presentation, diagnosis, and management of diseases most prevalent in surgery, emergency medicine, and psychiatry. Prerequisites: Successful completion of PHAS 306, Departmental consent, and/or admission to Professional Program. PHAS 304, PHAS 305.

- PHAS 308 Community Health & Epidemiology Credit 2**
This course will review epidemiological factors affecting health maintenance and the development of programs of disease prevention, intervention, and health promotion. Prerequisite: PHAS 201.
- PHAS 309 Health Care Ethics & Law Credit 2**
This course provides a focused review of current philosophies, policies, and ethical issues in contemporary health care targeted at the Physician Assistant profession. Prerequisite: PHAS 201.
- PHAS 310 Nutrition Credit 2**
This course explores the process of nutritional assessment and intervention for healthy living and maintenance. Prerequisite: PHAS 201.
- PHAS 311 Pathophysiology Credit 3**
This course analyzes the abnormal human structure or function responsible for various disease processes. It is concerned with the etiology, clinical manifestation, and progress of human disease. Prerequisites: BIOL 111, BIOL 113, BIOL 231, BIOL 232, BIOL 233, BIOL 234, BIOL 301, BIOL 303.
- PHAS 312 Pharmacology I Credit 3**
This course explores the general principles of pharmacology, including pharmacokinetics and pharmacodynamics, classes of therapeutic agents, mechanisms of action, proper routes of administration, common side effects, and drug interactions and contraindications. Prerequisite: Departmental consent and/or admission to Professional Phase. Prerequisite: PHAS 302.
- PHAS 313 Pharmacology II Credit 3**
This course is a continuation of Pharmacology I. Prerequisites: Successful completion of PHAS 312, Departmental consent, and/or admission to Professional Phase. Prerequisite: PHAS 312.
- PHAS 314 Physician Assistant Role Credit 1**
This course entails discussions of issues relevant to the Physician Assistant practice. Concepts relevant to the Physician Assistant role are explored. Prerequisite: PHAS 200.
- PHAS 315 Physical Diagnosis I Credit 2**
This course teaches the student how to elicit and perform a comprehensive history and physical examination, as well as how to properly document and present findings. Prerequisites: Departmental consent and/or admission to the Professional Phase, PHAS 200.
- PHAS 316 Physical Diagnosis II Credit 2**
This course will teach the student how to perform a history and physical examination directed toward specific age groups throughout the life cycle. The differentiation of abnormal physical findings will be explored on an organ systems approach. The development of differential diagnoses and management plans will be performed. Prerequisites: Successful completion of PHAS 315, Departmental consent, and/or admission to the Professional Phase. PHAS 315.
- PHAS 317 Physical Diagnosis III Credit 3**
This course covers the indications, contraindications, step-by-step procedures, and complications of hands-on clinical skills, which are commonly performed in medical practice, such as phlebotomy, injections, IV therapy, urethral and nasogastric catheterization, pulmonary function testing, suturing, casting and splinting, various ENT procedures, electrocardiogram, and use of various types of monitoring devices. The students will be required to complete an Advanced Cardiac Life Support Course. Prerequisites: Successful completion of PHAS 315 and PHAS 316, Departmental consent, and/or admission to the Professional Phase. PHAS 315 and 316.
- PHAS 400 Internal Medicine Clerkship Credit 4**
This course is a clinical rotation of five weeks in a community based or institutional setting. The student will obtain in depth clinical exposure in the areas of cardiology, pulmonology, gastroenterology, and rheumatology. The student will perform history and physical examinations as appropriate to the medical condition and participate in evaluation, management, and treatment of acute and chronic medical problems. Prerequisites: Departmental consent and/or admission to the Professional Phase. PHAS 306, PHAS 307, PHAS 317.

- PHAS 401 Pediatric and Adolescent Medicine Clerkship Credit 4**
 This course is a five week clinical rotation that takes place in a physician's office or institutional setting. The students will have clinical exposure to newborn and infant exams, well child care, anticipatory guidance for parents, routine care of the newborn including feeding, sleeping, bowel habits, and identification of common congenital deformities or malformations. The student will perform history and physical examinations and participate in evaluation, management, and treatment of acute and chronic medical conditions. Prerequisite: Departmental consent and/or admission to the Professional Phase. Prerequisites: PHAS 306, PHAS 307, PHAS 317.
- PHAS 402 Surgery Clerkship Credit 4**
 This course is a five week clinical rotation that takes place in an inpatient and outpatient setting. The student will develop skills and knowledge in performing initial pre-operative as well as post-operative evaluations including post-operative complications. The student will perform an *Assessment of Operative Risk* and be able to compose and record accurate, concise post-operative notes, orders, evaluation, and treatment. Prerequisites: Departmental consent and/or admission to the Professional Phase. PHAS 306, PHAS 307, PHAS 317
- PHAS 403 Clinical Transition I Credit 1**
 This course enables students to make the transition from the University of Maryland Eastern Shore Physician Assistant Program to the workforce. The following activities are included: National Certification Examination preparation, resume writing, contract negotiations, third party reimbursement, malpractice, licensure, quality assurance, risk management and clinical skills refinement. Prerequisites: Departmental consent and/or admission to the Professional Phase, PHAS 306, PHAS 307, PHAS 317.
- PHAS 404 Clinical Transition II Credit 1**
 This course is a continuation of PHAS 403. Prerequisites: Departmental consent and/or admission to the Professional Phase. PHAS 306, 307, 317
- PHAS 405 Clinical Transition III Credit 1**
 This course is a continuation of PHAS 403 and PHAS 404. Departmental consent and/or admission to the Professional Phase. Prerequisites: PHAS 306, PHAS 307, PHAS 317, PHAS 404.
- PHAS 406 Psychiatry Clerkship Credit 4**
 This course is a five-week clinical rotation in Psychiatry and related psycho-pharmacology outpatient setting. The student will perform a psychiatric history, a mental status examination, and identify and evaluate common psychiatric disorders. The student will have exposure to pharmacologic as well and non-pharmacologic interventions, their indications, contraindications, and relative merit thereof. Prerequisites: Departmental consent and/or admission to the Professional Phase. PHAS 306, 307, 317
- PHAS 407 Emergency Medicine Clerkship Credit 4**
 This course is a five-week clinical rotation in a hospital setting. The student will have exposure to cardiovascular, pulmonary, neurological, psychological/psychiatric, obstetrical, gynecological infectious disease, thermal, allergic, soft tissue, ear, nose and throat, and orthopedic emergencies, amongst many others. The student will perform a history, physical exam, and evaluation of the particular conditions presented. Prerequisites: Departmental consent and/or admission to the Professional Phase. PHAS 306, PHAS 307, PHAS 317.
- PHAS 408 Obstetrics and Gynecology Clerkship Credit 4**
 This course is a five-week clinical rotation that takes place in an outpatient and or inpatient setting. The student will obtain a history and perform an examination appropriate to the female patient. The student will have exposure to techniques employed in a routine physical examination of the female reproductive system, clinical manifestations, diagnosis, and management of common gynecological and obstetric conditions.. The student will employ diagnostic tests and procedures as they are clinically significant in the OB/GYN patient. Prerequisites: Departmental consent and/or admission to the Professional Phase, PHAS 306, PHAS 307, PHAS 317.
- PHAS 409 Family Practice I Clerkship Credit 4**
 This course is a five-week clinical rotation in an outpatient office setting. The student will have overall exposure to common ear, nose and throat, cardiac, respiratory, gastroenterology, hematology, oncology, endocrinology, gynecology, genitourinary, musculoskeletal, dermatology, psychiatry, and neurology disease entities. The student will be called upon to perform routine in-office procedures to assist in the evaluation and management of the patient. Prerequisites: Departmental consent and/or admission to the Professional Phase, PHAS 306, PHAS 307, PHAS 317.

PHAS 410 Family Practice II Clerkship

Credit 4

This course is a nine-week clinical rotation as a further extension of Family Practice I. This rotation will allow the student to apply expanded skills and knowledge (obtained in Family Practice I) of ambulatory care environment under the direction and supervision of a physician. Prerequisites: Departmental consent and/or admission to the Professional Phase, PHAS 306, PHAS 307, PHAS 317.

PHAS 411 Gastroenterology Subspecialty Clerkship

Credit 4

This course is a five-week clinical rotation with in-depth study and application of disorders of the esophagus, stomach, liver, gallbladder, pancreas, and colon. The student will be exposed to the clinical manifestations, physical exam finding, diagnostic workup, treatment, complications, and prognoses of various disease entities as they relate to the gastrointestinal system. Prerequisites: Departmental consent and/or admission to the Professional Phase, PHAS 306, PHAS 307, PHAS 317.

PHAS 412 Rehabilitation Subspecialty Clerkship

Credit 4

This course is a five week clinical rotation in which the student will be exposed to common surgical problems and evaluation of patient injuries, complication of injuries, and the current needs for durable medical equipment such as wheel chairs, crutches, casts, etc. The student will be able to recognize, evaluate, and discuss the most common injuries and assess needs for Occupational, Physical, and Respiratory Therapy and other ancillary allied health personnel. Prerequisites: Departmental consent and/or admission to the Professional Phase. PHAS 306, PHAS 307, PHAS 317.

PHAS 413 Geriatric Subspecialty Clerkship

Credit 4

This course is a five week clinical rotation in an outpatient, assisted living, or nursing home setting. The student will have clinical exposure to eliciting an appropriate, well organized medical history and performing an examination related to the elderly and the particular complaint. The student will develop competency in selecting appropriate laboratory and diagnostic procedures with attention to correct sequencing, patient preparation requirements, and risk. The student will be exposed to physiological patterns, psychosocial changes, normal age-related changes, management, complications, and management of disease entities specific to the elderly. Prerequisites: Departmental consent and/or admission to the Professional Phase, PHAS 306, PHAS 307, PHAS 317.

PHAS 414 Orthopedics Subspecialty Clerkship

Credit 4

This course is a five-week clinical rotation in which the student is assigned to an attending, senior resident and or a PA, and will function as a member of his /her Orthopedic or ER trauma team. The student will elicit a thorough and well-organized history from a patient and perform a physical exam relevant to the patient's problem. The student will develop competency in selecting and interpreting appropriate radiographic views required for fractures and other musculoskeletal complaints and the necessary skills for casting, splinting, and suturing. Prerequisites: Departmental consent and/or admission to the Professional Phase. PHAS 306, PHAS 307, PHAS 317.

PHAS 415 Otolaryngology Subspecialty Clerkship

Credit 4

This course is a five-week clinical rotation in which the student is assigned to an attending physician, resident or team. The student is exposed to history, physical evaluation, and management of hearing loss, ear canal, Eustachian tube, middle and inner ear, nose and paranasals, mouth and pharynx and laryngeal disorders. Prerequisites: Departmental consent and/or admission to the Professional Phase. PHAS 306, PHAS 307, PHAS 317.

PHAS 416 Dermatology Subspecialty Clerkship

Credit 4

This course is a five-week clinical rotation in which the student is exposed to evaluating, diagnosing, and managing acute and chronic dermatological conditions. The student utilizes procedures particular to the disease entity. The student is also expected to describe the etiology, presentation, differential diagnosis, complications, and applicable laboratory findings and management of fungal, infectious bacterial, parasitic, allergic, follicular, glandular, circulatory, benign, pre-malignant, malignant, systemic, pigmentary, and pruritic dermatologic entities. Prerequisites: Departmental consent and/or admission to the Professional Phase, PHAS 306, PHAS 307, PHAS 317.

PHAS 417 Neurology Subspecialty Clerkship

Credit 4

This course is a five-week clinical rotation in which the student develops comprehension of neuroanatomy, with regard to expected physical and neurobehavioral findings and lesion localization. The student is exposed to common, urgent/emergent neurological disorders and develops competency in performing a physical, history, evaluation and management as relative to those entities. Prerequisites: Departmental consent and/or Admission to the Professional Phase, PHAS 306, PHAS 307, PHAS 317.

PHAS 418 Radiology Subspecialty Clerkship

Credit 4

This course is a five-week clinical rotation in which the student develops competency in understanding the varied uses of radiologic examination as a diagnostic tool for patient evaluation. The student will recognize the grossly normal versus abnormal radiologic findings in soft tissue and bony structures. Prerequisites: Departmental consent and/or Admission to the Professional Phase, PHAS 306, PHAS 307, PHAS 317.

PHAS 419 Cardiology Subspecialty Clerkship

Credit 4

This course is a five-week clinical rotation with in depth study and application of disorders of the heart, valvular, and circulatory systems. The student will be exposed to the clinical manifestations, physical exam findings, diagnostic workup and procedures, treatment, complications and prognoses of various disease entities as they relate to the cardiovascular system. Prerequisites: Departmental consent and Admission to the Professional Phase, PHAS 306, PHAS 307, PHAS 317.

DIRECTORY OF FACULTY

Huddleston, Christjon **Medical Director**
Master of Medicine, University of Maryland; B.A. Stanford University

Jackson-Bowen, Darlene **Chair & Program Director; Clinical Assistant Professor**
Master of Physician Assistant Studies, University of Nebraska; B.S. Howard University; Certificate of Primary Care Physician Assistantship, Howard University

Stanford, Peter **Academic Coordinator and Clinical Assistant Professor**
Master of Public Health, UNC-Chapel Hill; B.S. Duke University; Physician Assistant Certificate, Duke University; B.A. Antioch College

DEPARTMENT OF REHABILITATION

www.umes.edu/SHP/

Dr. William Talley, Chairperson

MISSION

The mission of the undergraduate program in rehabilitation services is to prepare students for entry-level employment in a variety of human services and rehabilitation-related settings, especially those serving individuals with physical, emotional, and developmental disabilities. The program is also designed to prepare its graduates to enter master's level programs in rehabilitation, psychology, physical therapy, related allied health fields, and human services.

OBJECTIVES

The objectives of the Rehabilitation Services program are to:

1. Offer instruction which reflects the philosophy and mission of the National Council on Rehabilitation Education.
2. Meet the academic requirements established by the University.
3. Meet the professional requirements and standards set by rehabilitation and related professional organizations.
4. Provide courses and learning experiences which prepare students for employment in rehabilitation, as well as the allied health and related human service professions.
5. Guide students in the development of leadership skills through participation in rehabilitation-related programs and student organizations.
6. Provide course offerings and professional programs to the University and the general community.
7. Provide an intellectual environment designed to facilitate academic growth and creative development.
8. Prepare students for graduate school and continued professional development.

DEGREES OFFERED

Bachelor of Science - Rehabilitation Services
Master of Science¹ - Rehabilitation Counseling

CERTIFICATION

Chemical Dependency Provisional Certification

GENERAL PROGRAM REQUIREMENTS

The admission of students to the undergraduate program in the Department of Rehabilitation is based upon the general admission requirements of the University.

DEPARTMENTAL REQUIREMENTS

Rehabilitation Services major--The Rehabilitation Services major must complete at least 120 credit hours of University courses. Included in the 120 credit hours are a minimum of 42 credit hours of Rehabilitation courses. A minimum grade of "C" must be achieved in these courses. For those students choosing a career in Allied Health, a minimum of 129 credit hours is recommended. These additional credits are courses that are normally prerequisites for graduate study in the Allied Health fields. To graduate with a degree in rehabilitation from either the American Sign Language Option or the Allied Health Option², 120 credit hours are required.

¹Please consult the Graduate School Catalog for details.

²For students in the Allied Health Option who are considering graduate studies in Physical Therapy, Occupation Therapy or closely related field, nine additional credits are recommended. These "Electives" on the Allied Health Option are already predetermined and indicated with a Superscript number 6 (⁶) on the "Curriculum Guide for Rehabilitation Allied Health Option".

CAREER OPPORTUNITIES

While "rehabilitation" is a term used in many fields, for us it primarily means the vocational rehabilitation of individuals who have disabilities and need assistance as they pursue their vocational goals. While our historical and legislative roots are firmly embedded in vocational rehabilitation, the field has greatly expanded. Graduates may go on to provide a variety of services to people with disabilities, including, but not limited to, vocational services. This four year course of study prepares students to become rehabilitation professionals, (e.g., case managers, and to successfully assume the role of care professionals in hospitals, mental health centers, developmental disability centers, residential chemical dependency treatment centers, etc.).

Those students interested in pursuing careers in the behavioral science orientation of rehabilitation, e.g. psychology, counseling, or vocational employment should follow the course sequence. Those students interested in pursuing careers in the allied health fields, e.g. occupational therapy or physical therapy should follow the Allied Health concentration.

COMMON REQUIRED COURESES

BIOL 231	CRJS 101 or	BUED 212	HUEC 203 or
BIOL 233	SOCI 202 or	MATH 210	PSYC 305
EDSP 200B	SOCI 250	PSYC 371	

REQUIRED MAJOR COURSES

REHA 201 ¹	REHA 301	REHA 304	REHA 401
REHA 301	REHA 302	REHA 305	REHA 402
REHA 302	REHA 303	REHA 306	REHA 403
REHA 303			REHA 406

Student must select two REHA Option courses:²

ASLS 203	REHA 311	REHA 404	REHA 411
ASLS 204		REHA 405	REHA 412
ASLS 307		REHA 407	REHA 421
ASLS 308		REHA 408	REHA 499
ASLS 421		REHA 409	

¹REHA 201 is the prerequisite for all REHA courses.

²Student must select two courses beginning with ASLS 203 and ending with REHA 499.

CURRICULUM GUIDE FOR REHABILITATION SERVICES

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 101	3	BIOL 111 ¹	3
MATH 109	3	BIOL 113 ¹	1
SOCI 101	3	ENGL 102	3
REHA 188 ²	1	PSYC 200	3
EXSC 111 ³	3	SOCI 201	3
CHEM 101	<u>3</u>	Elective	<u>3</u>
	16		16

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 231	3	REHA 201 ⁴	3
BIOL 233	1	EDSP 200B	3
ENGL 203	3	MATH 210	3
BUED 212	3	GEN ED CURR AREA I ⁵	3
SOCI 202 ⁶	3	Elective	<u>3</u>
GEN ED CURR AREA I ⁵	<u>3</u>		15
	16		

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 305	3	REHA 302	3
REHA 306	3	REHA 305	3
REHA 301	3	PSYC 371	3
REHA 303	3	PSYC 305 ⁷	3
Elective	<u>3</u>	Elective	<u>3</u>
	15		15

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
REHA 304	3	REHA 401	6
REHA 402	3	REHA 406	3
REHA 403	3	REHA Option ⁸	<u>3</u>
REHA Option ⁸	3		12
Elective	<u>3</u>		
	15		

Total Credits Hours Required: 120

¹BIOL 188A and 188 are authorized substitutions.

²GNST 100 is an authorized substitution.

³EXSC 111 can only be taken **once** for credit.

⁴REHA 201 is the prerequisite for all REHA courses.

⁵Student must select from GEN ED CURR AREA I: Humanities

⁶SOCI 250 or CRJS 101 are authorized substitutions.

⁷HUEC 203 is an authorized substitution.

⁸Student must select from Required Common Course section in Rehabilitation Services

AMERICAN SIGN LANGUAGE

DEPARTMENTAL REQUIREMENTS

If students are following the Rehabilitation course sequence, they must take at least fifteen (15) credits in courses that are consistent with their career goals. Students are encouraged to select courses from the following list of recommended electives if they wish to fulfill requirements for American Sign Language Studies. Select 100, 200, 300, or 400 level courses parallel with the first, second, third or fourth year of college. Courses in Rehabilitation, Psychology, Sociology, Social Work, or Criminal Justice are recommended.

The following courses prepare individuals who are interested in developing communication skills for interacting with the Deaf community. The Program is open to other academic units at the University of Maryland Eastern Shore and to the community for individuals who are interested in acquiring sign language skills. ASLS courses are authorized substitutions for the two required Rehabilitation Options.

REQUIRED MAJOR COURSES

ASLS 202
ASLS 203
ASLS 204
ASLS 307
ASLS 308
ASLS 421

CURRICULUM GUIDE FOR AMERICAN SIGN LANGUAGE

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 101	3	BIOL 111 ¹	3
MATH 109	3	BIOL 113 ¹	1
SOCI 101	3	ENGL 102	3
REHA 188 ²	1	PSYC 200	3
EXSC 111	3	SOCI 201	3
CHEM 101	<u>3</u>	ASLS 202	<u>3</u>
	16		16

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 231	3	REHA 201 ³	3
BIOL 233	1	EDSP 200B	3
ENGL 203	3	MATH 210	3
BUED 212	3	GEN ED CURR AREA I	3
SOCI 202 ⁴	3	ASLS 204	<u>3</u>
ASLS 203	<u>3</u>		15
	16		

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 305	3	REHA 302	3
REHA 306	3	REHA 305	3
REHA 301	3	PSYC 371	3
REHA 303	3	PSYC 305 ⁵	3
ASLS 307	<u>3</u>	ASLS 308	<u>3</u>
	15		15

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
REHA 304	3	REHA 401	6
REHA 402	3	REHA 406	3
REHA 403	3	REHA Option ⁶	<u>3</u>
REHA Option ⁶	3		12
ASLS 421	<u>3</u>		
	15		

Total Credits Hours Required: 120

¹BIOL 188A and 188 are authorized substitutions.

²GNST 100 is an authorized substitution.

³REHA 201 is the prerequisite for all REHA courses.

⁴SOCI 250 or CRJS 101 are authorized substitutions.

⁵HUEC 203 is an authorized substitution.

⁶Student must select from Required Common Course section.

CHEMICAL DEPENDENCY PROVISIONAL CERTIFICATION REQUIREMENTS

DEPARTMENTAL REQUIREMENTS

If students are following the Rehabilitation course sequence, they must take at least fifteen (15) credits in courses that are consistent with their career goals. Students are encouraged to select courses from the following list of recommended electives if they wish to fulfill requirements for Chemical Dependency Provisional Certification. Select 100, 200, 300, or 400 level courses parallel with the first, second, third or fourth year of college. Courses in Rehabilitation, Psychology, Sociology, Social Work, or Criminal Justice are recommended.

REQUIRED MAJOR COURSES

The following courses fulfill the educational requirements for the Chemical Dependency Provisional Certification through the Board of Professional Counselors. These are in addition to required Rehabilitation Services Program Core Courses.

RECN 701 ¹	REHA 404
	REHA 407

¹Program Approval Required

CURRICULUM GUIDE FOR CHEMICAL DEPENDENCY PROVISIONAL CERTIFICATION

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 101	3	BIOL 111 ¹	3
MATH 109	3	BIOL 113 ¹	1
SOCI 101	3	ENGL 102	3
REHA 188 ²	1	PSYC 200	3
EXSC 111 ³	3	SOCI 201	3
CHEM 101	<u>3</u>	Elective	<u>3</u>
	16		16

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 231	3	REHA 201 ⁴	3
BIOL 233	1	EDSP 200B	3
ENGL 203	3	MATH 210	3
BUED 212	3	GEN ED CURR AREA I	3
SOCI 202 ⁵	3	Elective	<u>3</u>
GEN ED CURR AREA I	<u>3</u>		15
	16		

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 305	3	REHA 302	3
REHA 306	3	REHA 305	3
REHA 301	3	PSYC 371	3
REHA 303	3	PSYC 305 ⁶	3
Elective	<u>3</u>	Elective	<u>3</u>
	15		15

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
REHA 304	3	REHA 401	6
REHA 402	3	REHA 406	3
REHA 403	3	RECN 701	<u>3</u>
REHA 404	3		12
REHA 407	<u>3</u>		
	15		

Total Credits Hours Required: 120

¹BIOL 188A and 188 are authorized substitutions.

²GNST 100 is an authorized substitution

³Course cannot be repeated for credit.

⁴REHA 201 is the prerequisite for all REHA courses.

⁵SOCI 250 or CRJS 101 are authorized substitutions.

⁶HUEC 203 is an authorized substitution.

ALLIED HEALTH OPTION¹

DEPARTMENTAL REQUIREMENTS

The Rehabilitation Services major must complete at least 120 credit hours of University courses. Included in the 120 credit hours are a minimum of 42 credit hours of Rehabilitation at the 200 level or above for the professional major. A minimum grade of "C" must be achieved in these courses. For those students choosing a career in Allied Health, a minimum of 129 credit hours is recommended. These additional credits are courses that are normally prerequisites for graduate study in the Allied Health fields. To graduate with a degree in rehabilitation from either the Behavioral Rehabilitation Option or the Allied Health Option, 120 credit hours are required.

¹* For students in the Allied Health Option who are considering graduate studies in Physical Therapy, Occupation Therapy or closely related field, nine additional credits are recommended. These "Electives" on the Allied Health Option are already predetermined and indicated with a Superscript number 6 (⁶) on the "Curriculum Guide for Rehabilitation Allied Health Option".

CURRICULUM GUIDE FOR ALLIED HEALTH OPTION¹

FRESHMAN YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 101	3	BIOL 111 ²	3
MATH 109	3	BIOL 113 ²	1
SOCI 101	3	ENGL 102	3
REHA 188 ³	1	PSYC 200	3
EXSC 111	3	SOCI 201	3
CHEM 111	3	CHEM 112	3
CHEM 113	<u>1</u>	CHEM 114	<u>1</u>
	17		17

SOPHOMORE YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
BIOL 231	3	BIOL 232	3
BIOL 233	1	BIOL 234	1
ENGL 203	3	REHA 201 ⁴	3
BUED 212	3	EDSP 200B	3
SOCI 202 ⁵	3	MATH 210	3
GEN ED CURR AREA I	<u>3</u>	GEN ED CURR AREA I	<u>3</u>
	16		16

JUNIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
ENGL 305	3	REHA 302	3
REHA 306	3	REHA 305	3
REHA 301	3	PSYC 371	3
REHA 303	3	PSYC 305 ⁶	3
PHYS 121	3	PHYS 122	3
PHYS 123	<u>1</u>	PHYS 124	<u>1</u>
	16		16

SENIOR YEAR

<i>First Semester</i>	<i>Credit</i>	<i>Second Semester</i>	<i>Credit</i>
REHA 304	3	REHA 401	6
REHA 402	3	REHA 406	3
REHA 403	3	REHA Option ⁷	3
REHA Option ⁷	3	BIOL 301 ⁸	3
MATH 110 ⁷	<u>3</u>	BIOL 303 ⁸	<u>1</u>
	15		16

Total Credit Hours Required: 129

¹For students in the Allied Health Option who are considering graduate studies in Physical Therapy, Occupation Therapy or closely related field, nine additional credits are recommended. These "Electives" on the Allied Health Option are already predetermined and indicated with a Superscript number 6 (⁶) on the "Curriculum Guide for Rehabilitation Allied Health Option".

²BIOL 188A/188 are authorized substitutions.

³GNST 100 is an authorized substitution.

⁴REHA 201 is the prerequisite for all REHA courses.

⁵SOCI 250 or CRJS 101 are authorized substitutions.

⁶HUEC 203 is an authorized substitution.

⁷Student must select from Required Common Course section.

⁸BIOL 326/327 or BIOL 420/421 are authorized substitutions.

- REHA 303 Case Recording & Case Management Credit 3**
 This course examines principles and practices of obtaining, recording, evaluating, and utilizing case data in rehabilitation. Techniques of managing caseload of individuals with a disability are explored. Prerequisite: REHA 201.
- REHA 304 Assessment in Rehabilitation Credit 3**
 In this course students conduct a survey of psychological, social and vocational tests. The nature and use of tests in counseling, test analysis and test interpretation are examined. Prerequisite: REHA 201.
- REHA 305 Vocational Development Counseling and Employment Credit 3**
 This course are examines theories of vocational choice, and vocational counseling, and vocational assessment. Job development and placement techniques are discussed. Problems relating to placement of disabled persons in employment are investigated. Prerequisite: REHA 201.
- REHA 306 Counseling Skills and Technology Credit 3**
 This course is designed to expose students to the basic skills and techniques of counseling. Students who participate in this course acquire counseling skills through participation in intensive classroom counseling scenarios. Prerequisite: REHA 201.
- REHA 311 Independent Living Credit 3**
 This course assists students in developing leadership skills and knowledge which will enable them to work with individuals with chronic disabilities. Students will learn the ways these individuals live independently and productively in the community. Prerequisite: REHA 201.
- REHA 401 Field Work in Rehabilitation Services Credit 6**
 This course is a part-time supervised practicum in agencies and institutions providing rehabilitation services essential to employment. Prerequisites: REHA 301, REHA 302, REHA 303, REHA 304, REHA 305 and REHA 306 and permission of the Clinical Coordinator.
- REHA 402 Introduction to Development Disabilities/Online Credit 3**
 This course provides a study of the etiology, treatment, terminology, and related process of rehabilitation to include programs, personnel, and facilities; community resources, and current trends in developmental disabilities. Prerequisite: REHA 201.
- REHA 403 Rehabilitation of the Psychiatrically Impaired Credit 3**
 This course is a study of the history and current practices; programs, personnel, and facilities; community organizations; and trends of the psychiatrically impaired. Prerequisite: REHA 201.
- REHA 404 Rehabilitation Services for the Addict/Hybrid Credit 3**
 This course is a study of the physical, social, psychological, and vocational aspects of the people who have become addicted. Assessment, prevention and treatment techniques are explored. Prerequisite: REHA 201.
- REHA 405 Human Relations in Rehabilitation Credit 3**
 This course provides a study of social and cultural relationships of ethnic and racial groups. Emphasis is on factors relating to employment of culturally diverse individuals with disabilities. Prerequisite: REHA 201.
- REHA 406 Seminar in Rehabilitation Credit 3**
 Current trends, problems, and development in rehabilitation are discussed. Students pursue a special interest area, such as cultural diversity, disability determination, work adjustment, work evaluation, legal and ethical issues, etc., and share information and experience mutually with the class. Lecture, guest speakers, reports, and class discussions are utilized. Prerequisite: REHA 201.
- REHA 407 Pharmacology of Chemical Dependency Rehabilitation Credit 3**
 The medical, psychological, and sociological effects of legal and illegal drugs are discussed. Focus is on the pharmacological actions and behavior effects of cocaine, amphetamines, alcohol, depressants, psychiatric drugs, opiates, marijuana, hallucinogens and other prescription/over-the-counter drugs. Prerequisite: REHA 201.
- REHA 408 Technology in Rehabilitation Credit 3**
 This course provides an overview of technology focused on adaptive and assistive rehabilitation technology, including aids for daily living. Prerequisite: REHA 201.
- REHA 409 Traumatic Brain Injury Rehabilitation Credit 3**
 People with traumatic brain injury (TBI) represent a large group who are receiving vocational rehabilitation. This course will provide the needed knowledge and skills to work effectively with people with TBI. Prerequisite: REHA 201.

REHA 411 **Field Work in Rehabilitation Services II** **Credit 1-6**
This course is a part-time supervised practicum in agencies and institutions providing rehabilitation services essential to employment. Students must have completed 6 credit hours of REHA 401 to enroll in this course.

REHA 412 **Special Topics in Rehabilitation/Online** **Credit 3**
This course prepares students to understand current issues and policies regarding disabilities and how those policies influence the rehabilitation process. Prerequisite: REHA 201.

REHA 421 **Practicum in Rehabilitation** **Credit 1-6**
This course provides for an expanded elective opportunity for students to become exposed to and experience the operations within an agency, organization, or institution. This is a part-time supervised opportunity. Prerequisite: REHA 201.

REHA 499 **Independent Study/Online** **Credit 1-6**
This course is an intensive study of specialized topics in rehabilitation for advanced students. Permission to take an independent study must be obtained from the instructor when the course is otherwise unavailable. Prerequisite: REHA 201.

DIRECTORY OF FACULTY

Blackmon, Jonathan **Lecturer/Sign Language Interpreter**
B.A., Lenoir-Rhyne College

Faubion, Clayton **Associate Professor**
B.A., University of Texas; M.Ed., Southwest Texas State; Ph.D., University of Arkansas; Certified Rehabilitation Counselor (C.R.C.)

Harris, LaKeisha **Assistant Professor**
B.S., Bowie State University; M.R.C., Bowling Green State University; Ph.D., University of Iowa; Certified Rehabilitation Counselor (C.R.C.)

Lankford, Gail **Clinical Coordinator**
B.A.S.W, Salisbury State University; M.Ed., University of Maryland Eastern Shore; Certified Rehabilitation Counselor (C.R.C.); Certified Alcohol Counselor (C.A.C.); Certified Chemical Dependence Counselor (C.C.D.C.); Licensed Clinical Drug Alcohol Counselor (LCDAC)

Rahimi, Maryam **Associate Professor**
B.S. Jundishapour University, Iran; M.S., Ph.D., Florida State University; Licensed Clinical Professional Counselor (L.C.P.C.); Certified Rehabilitation Counselor (C.R.C.)

Talley, William **Professor, Chair and Acting Assistant Dean**
B.A., South Carolina State University; M.A., South Carolina State University; Rh.D., Southern Illinois University at Carbondale
Certified Rehabilitation Counselor (C.R.C.)

LIBRARY SERVICES

The course indicated below is offered by Library Services at UMES. For further details regarding Library Services, please go to page 21.

COURSE DESCRIPTIONS FOR LIBRARY SERVICES

LIBR 100Online Information Literacy

Credit 1

This on-line course provides a framework to identify, retrieve, evaluate, and use information effectively and efficiently. It includes social, legal and economic issues surrounding the use of information. Students will acquire the information skills necessary to succeed in academic and professional arenas; thus building a framework for life long learning.

LIBR 100Hybrid The hybrid course provides a framework to identify, retrieve, evaluate, and use information effectively and efficiently. It includes social, legal and economic issues surrounding the use of information. Students will acquire the information skills necessary to succeed in academic and professional arenas; thus building a framework for life long learning.

DIRECTORY OF FACULTY

Bree, Joseph D...... **Librarian I**
B.S., Weber State University (Utah); MLIS University of North Texas

Brooks, Sharon..... **Librarian IV**
B.S., North Carolina Central University; M.A., North Carolina Central University

Dadson, Theresa..... **Librarian IV**
B.A., University of Ghana; MLS McGill University (Canada)

Driscoll, Anne K...... **Librarian II**
B.A. English, Portland State University; Oregon; MSIS University of Tennessee, Knoxville; M.S., Certificate to Teach English as a Second Language, University of Tennessee, Knoxville,

Mastrodonato, Theresa M...... **Librarian I**
B.A., State University of New York, Genesco; MLS, State University of New York, Buffalo,

Neumyer, Jennifer A...... **Librarian II**
B.A., Pennsylvania State University, University Park; MSLS, Clarion University of Pennsylvania

Nyirenda, Cynthia..... **Librarian II**
B.S., Davenport University; B.A., University of Malawi; M.A., University of London (UK),

Reed, Ann C **Librarian I**
B.A., Salisbury University, MLIS, University of Hawaii, Manoa

Rounds, Marvella..... **Librarian IV**
B.S., University of Maryland Eastern Shore; MLS, University of Maryland, College Park,

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