

Chapter 6

The Colleges and Schools

COLLEGE OF AGRICULTURE AND NATURAL RESOURCES (AGNR)

0107 Symons Hall, (301) 405-7761
E-mail: eweiss@deans.umd.edu
<http://www.agnr.umd.edu>

Dean: Thomas A. Fretz
Associate Dean: Leon H. Slaughter
Assistant Dean: John Doerr

The College of Agriculture and Natural Resources offers a variety of academic programs that apply science, management, design, and engineering to improve the world in which we live and work. Feeding the world population, developing scientifically-based land use practices and policies, understanding animal and plant biology, improving nutrition and its effects on human health, and profitably managing farms and agribusinesses in harmony with ecosystems are all vital concerns of the College. Integrating the use and protection of natural resources in the production of food and nursery crops is a challenge facing students.

Each student in the College is assigned a faculty adviser to assist in selecting courses to meet the individual needs of our diverse student body. In addition to course work, undergraduates have opportunities to work closely with faculty in state-of-the-art facilities including new biological resources engineering, animal sciences, veterinary medicine, and plant sciences buildings. The College also serves as the academic home of the Maryland Campus of the Virginia-Maryland Regional College of Veterinary Medicine. Nearby resources such as the U.S. Department of Agriculture's Beltsville Agricultural National Research Center, the National Institutes of Health, the Food and Drug Administration, the Smithsonian Institution and the National Zoo, Maryland's Departments of Agriculture and Natural Resources, and the Patuxent Wildlife Research Center enhance teaching, research, internship, and career opportunities for students. Field study courses offered in Brazil, Belize, Egypt, and Costa Rica and study-abroad programs expose students to other cultures and environments. Learning opportunities are also strengthened through student involvement in such co-curricular activities as the College Honors Program, career programs, leadership workshops, and student clubs.

Graduates are employed in a variety of professions as dietitians, food scientists, landscape architects, engineers, natural resource managers, environmental consultants, land use planners, agribusiness managers, stock and commodity brokers, or lawyers specializing in environmental issues. Others work at government and industry research laboratories, biotechnology and biomedical firms, and in hospitals, fish and wildlife programs, the Peace Corps, public health departments, and large food-production operations. Many graduates pursue advanced degrees in veterinary medicine, law, medicine, physical therapy, or graduate school.

Departments in the College of Agriculture and Natural Resources offer the following programs of study:

Agricultural and Resource Economics—Business Management; Environmental Policy; Farm Production; Food Production; International Agriculture; and Political Process.

Animal Sciences—Animal Management and Industry; Avian Business; Laboratory Animal Management; and Professional/Sciences.

Combined Vet. Med./Animal Sciences Degree

Biological Resources Engineering—Water Resources; Bioenvironmental Engineering; Aquacultural Engineering; and Biomedical Engineering.

Natural Resource Sciences—Conservation of Soil, Water and Environment, Horticulture and Crop Production, Landscape Management, Plant Sciences, Turf and Golf Course Management, and Urban Forestry.

General Agricultural Sciences

Landscape Architecture

Nutrition and Food Science—Dietetics; Food Science; and Nutritional Science

In addition, the college plays a major role in the **Environmental Science and Policy Program**, and sponsors several of its areas of concentration.

Advantage of Location and Facilities

Educational opportunities in the College of Agriculture and Natural Resources are enhanced by the proximity of several research units of the federal government. Teaching and research activities in the College are conducted with the cooperation of scientists and professional people in government positions. Of particular interest are the National Agricultural Research Center at Beltsville, the National Agricultural Library, the National Arboretum, and the Food and Drug Administration.

Instruction in the basic biological and physical sciences, social sciences, landscape design, and engineering principles is conducted in well-designed classrooms and laboratories. The application of basic principles to practical situations is demonstrated for the student in numerous ways. In addition to on-campus facilities, several operating education and research facilities are located throughout Maryland. Horticultural and agronomic crops, turf, beef, dairy cattle, and poultry are maintained under practical and research conditions also used for environmental studies.

Requirements for Admission

It is recommended that students entering the College of Agriculture and Natural Resources have completed a high school preparatory course that includes: English, 4 units; mathematics, 3 units; biological and physical sciences, 3 units; and history or social sciences, 2 units. Four units of mathematics should be elected by students who plan to major in biological resources engineering. The Landscape Architecture major is a limited enrollment program (LEP). See chapter 1 for general limited-enrollment program admission policies.

Degree Requirements

Students graduating from the College must complete at least 120 credits with a grade point average of 2.0 in all courses applicable toward the degree. Requirements of the major and supporting areas are listed under individual program headings in chapter 7.

Advising

Each student in the College of Agriculture and Natural Resources is assigned to a faculty adviser. Advisers normally work with a limited number of students and are able to give individual guidance. Students entering the freshman year with a definite choice of curriculum are assigned to departmental advisers for counsel and planning of all academic programs.

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Students who have not selected a definite curriculum are assigned to a general adviser who assists with the choice of electives and acquaints students with opportunities in the curricula in the College of Agriculture and Natural Resources and in other units of the university.

Financial Assistance

A number of scholarships are available for students enrolled in the College of Agriculture and Natural Resources. These include awards by the Agricultural Development Fund, Arthur M. Ahalt Memorial Scholarship, Attorney General's Scholarship, Beltsville Garden Club Scholarship, Eugene Fox/Bowie-Crofton Garden Club Scholarship, Frank D. Brown Memorial Scholarship, Chapel Valley Landscape Company Honorary Scholarship, George Earle Cook, Jr. Scholarship Fund, Ernest T. Cullen Memorial Scholarship, Richard F. Davis Memorial Award, Delmarva Corn and Soybean Scholarship, Mylo S. Downey Memorial Scholarship, C. Walter England Fund in Dairy Science, Robert Facchina/Johanna Foods Scholarship, James R. Ferguson Memorial Scholarship, Goddard Memorial Scholarship, Manasses J. and Susanna Grove Memorial Scholarship, Joe E. James Memorial Award Fund, The Kinghorne Fund, Gary Lee Lake Memorial Scholarship, Maryland Council of Farmers Coop Scholarship, Maryland Greenhouse Growers Association Scholarship, Maryland Nurserymen's Association Scholarships, Maryland Turfgrass Association, Maryland State Golf Association, Maryland and Virginia Milk Producers, Inc., Dr. Ray A. Murray Scholarship Fund, Joseph Newcomer Memorial Scholarship, Paul R. Poffenberger Scholarship Fund, the Ross and Pauline Smith Fund for Agriculture, J. Herbert Snyder Scholarship, Southern States Cooperative, Inc., the David N. Steger Scholarship Fund, Takoma Horticultural Club Scholarship, the A.F. Vierheller Award Fund in Horticulture, Veterinary Science Scholarship, Siegfried Weisberger Jr. Memorial Fund, Siegfried Weisberger Jr. Scholarship Fund, Theodore B. and Georgianna Miles Weiss Memorial Fund, and the Winslow Foundation.

Honors

Students may apply for admission to the College Honors program after completing 56 credits with a minimum 3.2 GPA in a program within the College. Honors students work with a faculty mentor and must take at least 12 credits of honors courses including a senior thesis. Interested students should contact their faculty adviser.

Student Organizations

Students find opportunity for varied expression and growth in the several voluntary organizations sponsored by the College of Agriculture and Natural Resources. These organizations are AGNR Student Council, Alpha Zeta, Agribusiness Club, Agronomy Club, Alpha Gamma Rho, Animal Husbandry Club, ASAE, the Society for Engineering in Agricultural, Food and Biological Systems, Collegiate 4-H, Collegiate FFA, Food and Nutrition Club, Horticulture Club, Landscape Architecture Student Association, INAG Club, Natural Resources Management Society, Poultry Science Club, Soil and Water Conservation Society UMCP Student Chapter, Symbiosis, Equestrian Club, and Veterinary Science Club.

RESEARCH AND SERVICE UNITS

Maryland Agricultural Experiment Station

The Maryland Agricultural Experiment Station (MAES) supports research conducted primarily by 120 faculty scientists located within the College of Agriculture and Natural Resources. Faculty use state-of-the-art facilities such as a new Research Greenhouse Complex and Environmental Simulator, as well as 10 off-campus research locations, for research in the science, business, policy, and practice of agriculture. MAES supports research that benefits consumers and producers alike; for example, our significant focus on the environment protects valuable natural resources such as the Chesapeake Bay. Undergraduate students also benefit from mentoring by MAES-supported faculty and instructional use of MAES facilities statewide.

Cooperative Extension Service

The Maryland Cooperative Extension Service (MCES) educates citizens in the application of practical, research-based knowledge to critical issues in agricultural and agribusiness including aquaculture; natural resources and the environment; human development, nutrition, diet, and health; youth development and 4-H; and family and community leadership. The statewide program includes more than 180 faculty and support staff located in 23 counties, the City of Baltimore, four regional centers, and the University of Maryland's College Park and Eastern Shore campuses. In addition, more than 15,000 volunteers and citizens in Maryland give generously of their time and energy.

VIRGINIA-MARYLAND REGIONAL COLLEGE OF VETERINARY MEDICINE, MARYLAND CAMPUS

College of Agriculture and Natural Resources
1202 Gudelsky Veterinary Center, (301) 314-6830
<http://www.vetmed.vt.edu>

The Virginia-Maryland Regional College of Veterinary Medicine is operated by the University of Maryland and the Virginia Polytechnic Institute and State University. Each year, 30 Maryland and 50 Virginia residents comprise the entering class of a four-year program leading to a Doctor of Veterinary Medicine (DVM).

The first three years are given at Virginia Polytechnic Institute and State University in Blacksburg, Virginia. The final year of instruction is given at several locations, including the University of Maryland, College Park.

A student desiring admission to the college must complete the pre-veterinary requirements and apply for admission to the professional curriculum. Admission to this program is competitive, and open to all Maryland residents. All Maryland residents' applications are processed at the College of Veterinary Medicine, Maryland Campus, University of Maryland, College Park.

Institute of Applied Agriculture (Two-Year Program)

E-mail: iaa@umail.umd.edu
<http://iaa.umd.edu>

The Institute of Applied Agriculture (IAA) awards academic certificates in Equine Business Management, General Ornamental Horticulture, Golf Course Management, Landscape Management, and Turfgrass Management. As a two-year program, the IAA has a separate admission policy. Upon completion of the program, students are welcome to transfer to the University of Maryland, College Park; University of Maryland University College; and other schools.

For more information about the IAA, its admissions procedures, and requirements, contact the Institute of Applied Agriculture, 2123 Juill Hall, University of Maryland, College Park, MD 20742-2525. Phone: (301) 405-4686. Information is also available on the Institute's home page and via E-mail (see addresses above).

Course Code: AGNR

SCHOOL OF ARCHITECTURE (ARCH)

Architecture Building, (301) 405-6284
<http://www.arch.umd.edu>

Professor and Dean: Steven W. Hurtt
Associate Dean: Stephen F. Sachs
Associate Dean: John W. Maudlin-Jeronimo
Associate Dean: Lee W. Waldrep, Ph.D.
Interim Director and Associate Professor: Karl F.G. Du Puy
Professors: Bechhoefer†, Bennett, Bowden, Etlin†, Francescato, Lewis, Schlesinger, Schumacher, Vann
Associate Professors: Bell, Bovill, DuPuy, Gardner, Gournay, Kelly
Assistant Professor: Goodhill, Jurmala, Mason
Lecturers: McInturff
Professor Emeritus: Fogle, Hill
†Distinguished Scholar-Teacher

The School of Architecture offers a four-year undergraduate program leading to the Bachelor of Science degree in architecture, and a graduate program leading to the professional degree of Master of Architecture. The undergraduate major in architecture is designed to minimize the time required to complete the curriculum leading to the professional degree.

Students receive rigorous and comprehensive instruction from a faculty whose members are active in professional practice or research. Many faculty members have distinguished themselves across the professional spectrum and represent different approaches to architectural design. Their individual areas of expertise include architectural design and theory, history, architectural archaeology, technology, urban design and planning, and historic preservation. Visiting critics, lecturers, and the Kea Distinguished Professor augment the faculty; together they provide students with the requisite exposure to contemporary realities of architectural design.

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The B.S. degree in architecture will qualify graduates to pursue a career in any of a number of fields, such as construction, real estate development, public administration, or historic preservation, or to continue in graduate work in professional fields such as architecture, urban planning, landscape architecture, or law.

Recruitment

1298 Architecture Building, (301) 405-6308
<http://www.arch.umd.edu>

Associate Dean: Lee W. Waldrep, Ph.D.

The School's Associate Dean serves as a resource and contact person for prospective students interested in the School of Architecture B.S. in Architecture degree and also serves as a liaison to the Office of Undergraduate Admissions.

Admission to Architecture

Architecture is a Limited Enrollment Program (LEP). See the Admissions section in chapter 1 for general LEP admission policies.

Freshman Admission. Students with the most competitive records from high school will gain direct admission to the School of Architecture from high school, as allowed by space considerations with the School. Because space may be limited before all interested freshmen are admitted to the program, early application is strongly encouraged. Freshmen admitted to the program will have access to the necessary advising through their initial semesters to help them determine if architecture is an appropriate major for their interests and abilities.

Freshmen who are admitted to architecture will be subject to a performance review at the end of their third semester, typically 45 credits. To meet the provisions of the review, these students must demonstrate their ability to complete the following prior to enrollment of the studio sequence:

- Fundamental Studies CORE requirement
- Distributive Studies CORE requirement
- ARCH 170, 220, 221 and 242 with a minimum grade of B in each
- MATH 220, PHYS 121 and 122 with a minimum grade of C in each and a 2.67 combined GPA for the three courses

Students may be enrolled in ARCH 221, PHYS 122 and completing their distributive studies contemporaneous with the review process during their fourth semester. A minimum cumulative GPA of 3.00 in all college level coursework is also required. In addition, the review will include an assessment of a portfolio, the nature of which is specified by the School of Architecture, statement of purpose, three letters of recommendation, and transcript. Please contact the School of Architecture at (301) 405-6308 for portfolio requirements and deadlines.

Students are admitted to the School of Architecture during Fall semester only.

Transfer Admission. New transfer students to the university, as well as on-campus students who wish to change majors to architecture, will undergo a transfer admission process. Admission of transfer students may be severely limited, and capacity is determined each year in accordance with the success of incoming freshmen. To meet the provisions of the process, these students must demonstrate their ability to complete the following prior to enrollment of the studio sequence:

- Fundamental Studies CORE requirement
- Distributive Studies CORE requirement
- ARCH 170, 220, 221 and 242 with a minimum grade of B in each
- MATH 220, PHYS 121 and 122 with a minimum grade of C in each and a 2.67 combined GPA for the three courses

Students may be enrolled in ARCH 221, PHYS 122 and completing their distributive studies contemporaneous with the review process during their fourth semester. A minimum cumulative GPA of 3.00 in all college level coursework is also required. In addition, the review will include an assessment of a portfolio, the nature of which is specified by the School of Architecture, statement of purpose, three letters of recommendation, and transcript. Please contact the School of Architecture at (301) 405-6308 for portfolio requirements and deadlines.

Students are admitted to the School of Architecture during Fall semester only.

Appeals. Students who are denied admission and who feel that they have extenuating circumstances may appeal in writing to the Office of Undergraduate Admissions, Mitchell Building. Students denied admission at the 45 credit review may appeal directly to the School of Architecture.

For further information, contact the Counselor for Limited Enrollment Programs at (301) 314-8385.

Curriculum Requirements

In the first two years of college, directly admitted students and those seeking to transfer into the School of Architecture should adhere to the following curriculum:

	Credit Hours
General Education (CORE) and Elective	28
UNIV 100—The Students in the University	1
ENGL 101—Introduction to Writing (CORE)	3
MATH 220—Elementary Calculus I (CORE)	3
ARCH 170—Introduction to the Built Environment (CORE)	3
PHYS 121—Fundamentals of Physics I (CORE)	4
ARCH 220—History of Architecture I*	3
ARCH 242—Drawing I	2
PHYS 122—Fundamentals of Physics II (CORE)	4
ARCH 221—History of Architecture II	3
Total Credits	56

If admitted after completing 56 credits, students are expected to complete the following requirements for a total of 120 credits:

	Credit Hours
Third Year	
ARCH 400—Architecture Studio I*	6
ARCH 410—Architectural Technology I	4
ARCH 4xx—Arch. History/Area A**	3
ARCH 401—Architecture Studio II	6
ARCH 411—Architectural Technology II	4
ARCH 343—Drawing II Line Drawing	3
ENGL 391—Advanced Composition	3
CORE Requirements	3
Total	32

Fourth Year	
ARCH 402—Architecture Studio III	6
ARCH 445—Visual Analysis of Architecture	3
ARCH 412—Architectural Technology III	4
ARCH 403—Architecture Studio IV	6
ARCH 413—Architectural Technology IV	4
CORE Requirements	3
One of the following	3
ARCH 460—Site Analysis & Design	
ARCH 450—Introduction to Urban Planning	
ARCH 454—Theories of Urban Form	
ARCH 4xx—Arch. History/ Area B**	3
Total	32
Total Credits	120

*Courses are to be taken in sequence as indicated by Roman numerals in course titles.

**Architecture history courses: Area A, ARCH 422, 423, 432, and 436 Area B, ARCH 433, 434, and 420.

Special Resources and Opportunities

The school is housed in a modern, air-conditioned building providing design workstations for each student, a large auditorium, and seminar and classroom facilities. A well-equipped woodworking and model shop, and computer terminal facilities are also provided. The Architecture Library, one of the finest in the nation, offers convenient access to a current circulating collection of more than 24,000 volumes, 6,000 periodicals, and an extensive selection of reference materials. Rare books and special acquisitions include a collection relating to international expositions and the 11,000-volume National Trust for Historic Preservation Library. A visual resources facility includes a reserve collection of 320,000 slides on architecture, landscape architecture, urban planning, architectural science, and technology as well as audio-visual equipment for classroom and studio use.

The school provides learning experiences through CADRE Corporation, a nonprofit center for architectural design and research, which provides an organizational framework for faculty and students to undertake contract research and design projects appropriate to the school's fundamental education mission. CADRE Corporation projects include building and urban design, urban studies, building technology, historic preservation, architectural archaeology, studies in energy conservation, or other work for which the school's resources and interests are uniquely suited.

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Summer programs include travel to Rome, Paris, Turkey, Great Britain, and other countries. In addition, summer workshops for historic preservation are sponsored by the school each year in Cape May, NJ, which is a designated national historic landmark district, and Kiplin Hall in North Yorkshire, England. Students may earn direct credit doing hands-on restoration work and by attending lectures by visiting architects, preservationists, and scholars.

Course Code: ARCH

COLLEGE OF ARTS AND HUMANITIES (ARHU)

1102 Francis Scott Key Hall, (301) 405-2088
<http://www.arhu.umd.edu>

Professor and Dean: James Harris
Office of Student Affairs: (301) 405-2110
Academic Advisers: (301) 405-2108
<http://www.arhu.umd.edu/studentresources/osa>

The College of Arts and Humanities embraces a heterogeneous group of disciplines, all of which value the development of critical thinking, fluent expression in writing and speech, sensitivity to ethical and aesthetic standards, and a complex understanding of history and culture. Departments and programs in Arts and Humanities, while they have strong individual identities, are also involved in interdisciplinary studies. Thus students will find, for example, courses in the Department of English that approach literature from political perspectives, courses in the Department of History that rely on feminist perspectives, courses in the Department of Art History and Archaeology that study African cultures, and so on.

Further examples of the special opportunities available to students in this richly variegated college include an exceptional slide library in Art History and Archaeology, the English Department's computer-based writing laboratory, an AT&T Foreign Language Classroom, a junior-year-abroad program in Nice, France, a year-abroad program in Sheffield, England, and Honors programs in most departments. In addition, the education vistas open to students in Dance, Music, and Theatre have been enhanced enormously by the recent opening of the Clarice Smith Center for the Performing Arts, which now houses those three departments.

Recruitment

1120L Francis Scott Key Hall, (301) 405-8599
<http://www.ARHU.umd.edu/admissions>
Admissions Coordinator: Carie Jones-Barrow

The College's Admissions Coordinator serves as a resource and contact person for prospective students interested in Arts and Humanities degrees and also serves as a liaison to the Office of Undergraduate Admissions.

Entrance Requirements

Students wishing to major in one of the creative or performing arts are encouraged to seek training in the skills associated with such an area prior to matriculation. Students applying for entrance to these programs may be required to audition, present slides, or submit a portfolio as a part of the admission requirements.

Graduation Requirements

The following College requirements apply only to students earning Bachelor of Arts degrees from the College of Arts and Humanities. These requirements are in addition to or in fulfillment of campus and departmental requirements. For information concerning the Bachelor of Music in the School of Music, students should consult a Music adviser.

Students who double major in ARHU and another college on campus **must** complete the College requirements in ARHU of foreign language to the intermediate level, and 45 hours of upper-level credit.

All Arts and Humanities freshman (excluding students in College Park Scholars, Honors Humanities, or University Honors) must take UNIV 101, The Student in the University and Introduction to Computer Resources, during their first semester on campus.

Distribution

A minimum of 45 of the total of 120 semester hours must be upper-level work (i.e., courses numbered 300-499).

Foreign Language

Language proficiency may be demonstrated in one of several ways:

- Successful completion of level 4 in one language in high school. **Students must provide a high school transcript to verify exemption.**
- Successful completion of an intermediate-level college foreign language course designed by the department.
- Successful completion of a language placement examination in one of the campus language departments offering such examinations.

Students who have native proficiency in a language other than English should see an adviser in the ARHU Office of Student Affairs, or call (301) 405-2108.

Major Requirements

All students must complete a program of study consisting of a major (a field of concentration) and supporting courses as specified by one of the academic units of the College. No program of study shall require in excess of 60 semester hours. Students should consult the unit in which they will major for specific details; certain units have mandatory advising.

A major shall consist, in addition to the lower-division departmental prerequisites, of 24 to 40 hours, at least 12 of which must be in courses numbered 300 or 400 and at least 12 of which must be taken at the University of Maryland, College Park.

A major program usually requires a secondary field of concentration (supporting courses). The nature and number of these courses are determined by the major department.

No grade lower than C may be used to fulfill major or supporting course requirements. No course for the major or support module may be taken Pass-Fail.

Advising

Freshmen and new transfer students have advisers in the Arts and Humanities College Office of Student Affairs (301-405-2108) who assist them in the selection of courses and the choice of a major. After selecting a major, students **must** see the departmental adviser for that major. All first-year students (both freshmen and transfers) and seniors who have completed 85-100 credits have mandatory advising in both the College and the department. For further information about advising, students should see the section on advising in the Mini-Guide, available from the College, or call the ARHU Office of Student Affairs, (301) 405-2108.

Degrees and Majors

The College of Arts and Humanities offers the degree of Bachelor of Arts in the following fields of study:

- American Studies
- Art
- Art History and Archeology
- Chinese Language and Literature
- Classics
 - Classical Humanities
 - Greek
 - Latin
 - Latin and Greek
- Communication
- Dance
- English Language and Literature
- French Language and Literature
- Germanic Studies
- History
- Italian Language and Literature
- Japanese Language and Literature
- Jewish Studies
- Linguistics
- Music

Philosophy
 Romance Languages
 Russian Language and Culture
 Russian Area Studies
 Spanish and Portuguese Languages and Literatures
 Theatre
 Women's Studies

The College also offers the degree of Bachelor of Music; certificate programs in Women's Studies, East Asian Studies, and Latin American Studies; and a program in Comparative Literature.

Citations

The College of Arts and Humanities offers Citations in the following areas of study:

Citation in Archaeology
 Citation in American Literature
 Citation in Ancient Greek Language & Literature
 Citation in British and American Literature
 Citation in British, Postcolonial and International Anglophone Literature
 Citations in Business Chinese, French, German, Japanese, Russian and Spanish
 Citations in Business Management for Foreign Language majors
 Citation in Chinese Language
 Citation in Chinese Studies
 Citation in Classical Languages & Mythology
 Citation in Classical Mythology
 Citation in Cognitive Science
 Citation in Comparative Religious Studies
 Citation in Comparative Studies
 Citation in French Language and Cultures
 Citation in Germanic Studies
 Citation in Interdisciplinary Multimedia and Technology
 Citation in Italian Language and Culture
 Citation in Japanese
 Citation in Jewish Studies
 Citation in Korean Studies
 Citation in Latin Language and Literature
 Citation in Linguistics
 Citation in Literature by Women
 Citation in Literature of the African Diaspora
 Citation in Music Performance
 Citation in Music Studies
 Citation in Philosophy
 Citation in Philosophy of Science
 Citation in Portuguese Languages & Cultures
 Citation in Renaissance Studies
 Citation in Rhetoric (Joint with Department of Communication)
 Citation in Russian Language
 Citation in Russian Language and Culture
 Citation in Spanish Language & Cultures
 Citation in Value Theory

Citations in the College of Arts and Humanities offer students in all disciplines the opportunity to pursue an in-depth, structured program of study in a field outside their major. Each student who successfully completes a citation (15-16 credits) will receive a certificate, and the accomplishment will be noted on the student's transcript. Consult departmental listings for more information.

Internships

Several departments within Arts and Humanities have well-established internship options. For more information on internships taken for academic credit, students should contact their departmental academic advisor. Typically students must be in good academic standing and in their junior or senior year to complete a for-credit internship. They usually complete an application and attach a current academic transcript, and the experience usually lasts for one semester. In addition to the site experience, students write an analysis of the experience in conjunction with a faculty member of a class. Internships in literacy and in the Maryland General Assembly are available through the English Department (301) 405-3827. For assistance in locating an internship site, visit the Career Center at 3100 Hornbake Library, South Wing or do a search on the web site www.careercenter.umd.edu.

Certification of High School Teachers

A student who wishes certification as a high school teacher in a subject represented in this College must consult the College of Education in the second semester of the sophomore year. Application for admission to the Teacher Education program is made at the time that the first courses in Education are taken. Enrollment in the College of Education is limited.

Honors

Honors Programs

Most departments in the College of Arts and Humanities offer departmental Honors Programs (DHP). DHPs are upper-division programs that provide students with a transition from the two-year University Honors and College Park Scholars programs to individual academic units. Students enrolled in departmental Honors work independently with faculty members in subjects of special interest, develop and deepen their research skills, and in the process earn an even stronger degree. Students must have a cumulative grade point average of at least 3.0 to be admitted. For further information about individual Departmental Honors Programs and policies, consult with departmental advisers.

Honors Humanities

0110 Easton Hall, (301) 405-6992

<http://www.inform.umd.edu/EdRes/Colleges/ARHU/ARHH/program.html>

Honors Humanities Director: Elizabeth Vandiver

Program Coordinator: Tanya Jung

Entering freshmen are able to participate by invitation in the Honors Humanities two-year living/learning program. This program represents the premier offering for the top students interested in building a solid and up-to-date foundation in the humanities. Honors Humanities provides students with stimulating seminars, exciting academic friendships, a lively home base in Easton Hall and opportunities to take advantage of the cultural and artistic riches of the Washington, D.C., area. Upon successful completion of the program, students will earn a University Honors transcript citation.

College Park Scholars

CPS in the Arts—Co-Director: Susan Anthony

CPS in American Cultures—Co-Directors: Jo Paoletti and Lillie Ransom

The College of Arts and Humanities co-sponsors two cross-disciplinary College Park Scholars programs in Arts and American Cultures. In these subject-based, two-year programs for incoming freshmen, students meet in weekly colloquia with faculty, study together, and create communities of learners and teachers in specially-equipped residence halls. The Scholars program allows students to experience a small college environment and work closely with their faculty adviser.

Phi Beta Kappa

Consult the description of Phi Beta Kappa in chapter 4.

Research and Service Units

Academic Computing and Computing Services

1116 Francis Scott Key Hall, (301) 405-2104

<http://www.ARHU.umd.edu/technology/accs.html>

Director: Kathleen R. Cavanaugh

Academic Computing Services (ACS) supports the use of technology by faculty, staff, and students in the College of Arts and Humanities. ACS maintains a variety of laboratories and instructional facilities to support the needs of the College. These include computer-equipped classrooms such as the Language Technology Classroom and the English New Media Classroom as well as facilities, such as the lab in the St. Mary's Hall, designed for individual student use.

The Art Gallery

1202 Art-Sociology Building, (301) 405-2763

<http://www.artgallery.umd.edu>

Director: Scott D. Habes

The Art Gallery presents a series of exhibitions each year of historic and contemporary art in a variety of media and subject matter. Opportunities for museum training and arts management experience are available to students through intern and work-study positions.

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The Center for Studies in Nineteenth-Century Music

2101 Skinner Building, (301) 405-7780
<http://www.inform.umd.edu/EdRes/Colleges/ARHU/Depts/19thCent/>
 Director: H. Robert Cohen
 Research Coordinator: Richard Kitson

The Center for Studies in Nineteenth-Century Music promotes research focusing on nineteenth-century music and musical life. The center's programs are designed to facilitate the study, collection, editing, indexing, and publication of documentary source materials.

The Center for Renaissance and Baroque Studies

0139 Taliaferro Hall, (301) 405-6830
<http://www.inform.umd.edu/CRBS>
 Founding Director: S. Schoenbaum (1927-96)
 Director: Adele Seeff
 Associate Director: Karen Nelson

The Center for Renaissance and Baroque Studies promotes teaching and research in the Renaissance and Baroque Periods in all disciplines of the arts and humanities. The Center sponsors a vast array of programs, including annual interdisciplinary symposia, special lectures and performances, conferences, summer institutes, and a volume series of symposia proceedings published by the University of Delaware Press in conjunction with Associated University Presses. As part of its mission to support undergraduate education, the Center offers a citation in Renaissance studies and coordinates a series of interdisciplinary arts and humanities courses. Through its CAST program (Center Alliance for School Teachers), the Center provides professional development to secondary school arts and humanities teachers throughout the state of Maryland and an after-school drama program for at-risk high school students. The planning committee for Attending to Early Modern Women—one of the Center's standing committees—organizes and coordinates an international symposium on the university's campus every three years. The Center was instrumental in securing funds for the founding of the Maryland Institute for Technology in the Humanities.

Committee on Africa and the Americas

2108 Tawes Fine Arts Hall Zip: 1220
africaamericas@umail.umd.edu
<http://www.africaamericas.umd.edu>
 Director: Daryle Williams

The Committee on Africa and the Americas seeks to promote the study and understanding of Africa and the African Diaspora at the University of Maryland and throughout the Maryland-Washington region. With strong representation in the humanities and the social sciences, the faculty, staff, and students affiliated with the Committee engage in interdisciplinary explorations of the history, culture, politics, and the creative expressions of Black peoples and blackness throughout the world. In addition to compiling information on curricular and research initiatives among its affiliates, the Committee funds conferences, lecture series, dramatic and musical performances, and the art exhibits.

The Committee is a joint venture of the Colleges of Arts and Humanities and Behavioral and Social Sciences.

Consortium on Race, Gender, and Ethnicity (CRGE)

2103 Tawes-Fine Arts Bldg.
 College Park, MD 20742 (301) 405-2931
www.umd.edu/crge

The Consortium is an association of academic units and individual faculty on the University of Maryland Campus whose mission is to promote, advance and conduct, research, scholarship and faculty development that examines the intersections of race, gender and ethnicity with other dimensions of difference. The Consortium also offers programs and opportunities aimed at student development including fellowships and colloquia.

Language House

0107 St. Mary's Hall, (301) 405-6996
<http://www.inform.umd.edu/LanguageCenter/lh/>

The Language House is a campus residence for students wishing to immerse themselves in the study of a foreign language and culture. A total of 90 students of Chinese, French, German, Hebrew, Italian, Japanese, Russian, and Spanish share 19 apartments. A live-in graduate mentor leads each language cluster. The goal of language immersion is achieved through activities organized by the students and mentors, a computer-based Language Learning Center, an audio-visual room, an international cafe, and foreign television programs received via satellite.

Language Media Services

Janel Brennan Tillman, Coordinator of Foreign Language Instructional Technology
 Christopher J. Watkins, Electronics Technician III
 1204 Jimenez Hall
 Telephone: (301) 405-6927
 Facsimile: (301) 314-9841
 Email: jb434@umail.umd.edu
cw188@umail.umd.edu
<http://www.inform.umd.edu/lms>

Serving the technology needs of the foreign language departments in the College of Arts and Humanities, Language Media Services provides for the audiovisual and computing needs of students, faculty and staff. The LMS collection consists of instructional materials as well as audio and video equipment. The unit supports a computing facility and audio lab, and also provides workshops and training for faculty in regards to the integration of technology into their instruction.

FOLA

1109 Jimenez Hall, (301) 405-4046
www.umd.edu/foia
 Coordinator: Naime Yaramanoglu

The FOLA (Foreign Language) Program enables qualified students with high motivation to acquire a speaking knowledge of a number of foreign languages not offered in regular campus programs. While instruction is basically self-directed, students meet regularly with a native-speaking tutor for practice sessions to reinforce what has already been covered through the individual use of books and audio tapes. Final examinations are administered by outside examiners who are specialists in their fields.

Business, Culture and Languages Program

1109 Jimenez Hall (301) 405-8183 or ahelmkur@deans.umd.edu
<http://www.umd.edu/bcl>
 Director: Anna Helm Kurz

The Business, Culture & Languages Program offers undergraduate students at the University of Maryland a comprehensive education specifically designed to help them compete in the global marketplace by bridging the two disciplines of business and language. In addition to the studying of business and foreign language, BCL attempts to help students develop cultural, sensitivity and the ability to adjust to different cultural contexts. The Business, Culture & Languages Program distinguishes itself by offering a flexible structure of study options, an interdisciplinary curriculum, and a menu of "non-traditional" courses. Students have a choice of two options in the Business, Culture and Languages Program:

- A double major in Business and a foreign language.
- A single major in either Business or one of the following foreign languages (Chinese, French, German, Japanese, Russian, or Spanish with Business Language Option) with citation in the other discipline.

In addition to these study options, this exciting program sponsors interactive activities, lectures, panels, and workshops. The BCL Program listserv keeps students informed of these events as well as of opportunities for international cultural immersion through internships and study abroad.

Students interested in an international career will acquire essential tools for understanding the business, culture, and language of the country or region of their interest.

Maryland English Institute (MEI)

Marsha Sprague, Director
 1101 Holzapfel Hall, 301-405-8634
<http://www.umd.edu/MEI>
 Director: Marsha Sprague

The Maryland English Institute (MEI) is committed to providing high quality instruction, to meeting the needs of non-native speakers and their sponsors, and to strengthening the ability of non-native English speakers to participate in rigorous academic and professional environments. MEI serves the University as a resource center in English language teaching and testing matters. It evaluates and instructs prospective and provisionally admitted international students and teaching assistants. Two regular instructional programs are offered: a semi-intensive program for provisionally admitted students and a full-time intensive program.

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Semi-Intensive (UMEI 005): This program is open only to students admitted to the University of Maryland who have submitted TOEFL scores between 475-574 (on the paper-based test) or 153-232 (on the computer-based test). Students with these scores are provisionally admitted, and must satisfactorily complete UMEI 005 their first semester in order to become fully admitted, full-time students at the University. UMEI 005 classes meet five days a week, two hours a day. The program is designed especially to perfect the language skills necessary for academic work at the University of Maryland. Enrollment is by permission of the director, and no credit is given toward any University degree.

Intensive: This full-time English language program is open to non-native speakers who wish to improve their English for academic, professional or general purposes. There are three intensive English sessions per year: One for fall semester, one for spring, and a six-week session in the summer. Each consists of approximately 22 hours of instruction weekly. The program offers multiple levels of instruction, from beginning to advanced. Many classes are web-based, and instructors encourage computer-assisted learning at all levels. Satisfactory completion of the program does not guarantee acceptance at the University. Enrollment is by permission of the director, and no credit is given toward any University degree.

Course Code: ARHU

COLLEGE OF BEHAVIORAL AND SOCIAL SCIENCES (BSOS)

2141 Tydings Hall, (301) 405-1697
 bsosque@bsos.umd.edu (for BSOS advising questions)
<http://www.bsos.umd.edu/deans.html>
http://www.bsos/umd.edu/advising_homepage.html

Professor and Dean: Irwin L. Goldstein
 Associate Dean: Stewart L. Edelstein
 Associate Dean: Robert E. Steele
 Assistant Dean: Katherine Pedro Beardsley
 Assistant Dean: Cynthia Hale
 BSOS Advising Center: (301) 405-1697

The College of Behavioral and Social Sciences is comprised of a diverse group of disciplines and fields of study all of which emphasize a broad liberal arts education as the foundation for understanding the environmental, social, and cultural forces that shape our world. At the heart of the behavioral and social sciences is the attempt to understand human beings, both individually and in groups. Disciplines in the behavioral and social sciences use approaches that range from the scientific to the philosophical, from the experimental to the theoretical. Integral to all the disciplines, however, is the development and application of problem solving skills, which in combination with other academic skills, enable students to think analytically and to communicate clearly and persuasively. Students interested in human behavior and in solving human and social problems will find many exciting opportunities through the programs and courses offered by the College of Behavioral and Social Sciences.

The College is composed of the following departments, each offering a major program that leads to the Bachelor of Arts or the Bachelor of Science degree, as appropriate:

Afro-American Studies Program*
 Department of Anthropology
 Department of Criminology and Criminal Justice
 Department of Economics
 Department of Geography
 Department of Government and Politics
 Department of Hearing and Speech Sciences
 Department of Psychology
 Department of Sociology

In addition, the College is a major contributor to the Environmental Science and Policy Program, and sponsors several of its areas of concentration.

*The Afro-American Studies Program also offers an undergraduate certificate requiring 21 semester hours of course work (see Undergraduate Certificate Programs in chapter 7).

Advising

The BSOS Advising Center coordinates advising and maintains student records for BSOS students. Advisers are available to provide information concerning University requirements and regulations, transfer credit

evaluations, and other general information about the University by appointments taken on a walk-in basis from 9 a.m. to 5 p.m. daily. Undergraduate advisers for each undergraduate major are located in the department offices. These advisers are available to assist students in selecting courses and educational experiences in their major area of study consistent with major requirements and students' educational goals.

Graduation Requirements

Each student must complete a minimum of 120 hours of credit with at least a 2.0 cumulative grade point average. Courses must include the credits required in the University's general education requirements (CORE) and the specific major and supporting course and grade requirements of the programs in the academic departments offering bachelor's degrees.

Students in BSOS must complete fundamental studies Math and English by 56 credits.

Students must complete 15 upper-level credits and 12 major credits in the student's final 30 credits.

All students are urged to speak with an academic adviser in the College Advising Office at least two semesters before graduation to review their academic progress and discuss final graduation requirements.

Honors

Undergraduate honors are offered to graduating students in the Afro-American Studies Program and the departments of Anthropology, Criminology and Criminal Justice, Economics, Geography, Government and Politics, Psychology, and Sociology.

Dean's Academic Scholar. To be named a Dean's Academic Scholar is the highest academic award that a BSOS student can earn in the College. Dean's Scholars are those graduating seniors who have completed 60 credits at the University of Maryland, College Park and have maintained a minimum cumulative grade point average of 3.8.

Dean's List. Any student who has passed at least 12 hours of academic work in the preceding semester, without failure of any course and with an overall average grade of at least 3.5 will be placed on the Dean's List. The Distinguished Dean's list consists of students who have completed successfully a minimum of 12 credit hours in a semester with a 4.0.

Student Organizations and Honor Societies

Students who excel in their academic discipline may be selected for membership in an honorary society. Honoraries for which students in BSOS are chosen include:

Alpha Kappa Delta—Sociology
 Alpha Phi Sigma—Criminal Justice
 Gamma Theta Upsilon—Geography
 Lambda Epsilon Gamma—Law
 Omega Delta Epsilon—Economics
 Pi Sigma Alpha—Political Sciences
 Psi Chi—Psychology
 Pi Gamma Mu—Social Sciences

Students who major in the Behavioral and Social Sciences have a wide range of interests. The following is a list of student organizations in the disciplines and fields of the Behavioral and Social Sciences:

Anthropology Student Organization
 Conservation Club
 Criminal Justice Student Association
 Economics Club
 Geography Club
 Government and Politics Club
 Minority Pre-Professional Psychology Society
 National Student Speech-Language and Hearing Association (NSSLHA), Maryland Chapter
 Pre-Medical Society (Pre-Med/Psychology Majors)
 The Forum (Sociology)
 Thurgood Marshall Pre-Law Society

For more information about these student organizations or starting a new student group, please contact the Office of Campus Activities, Adele H. Stamp Student Union, (301) 314-7174.

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Field Experiences/Pre-Professional and Professional Training

Pre-professional training and professional opportunities in the behavioral and social sciences are available in many fields. The internship programs offered by many departments in the College provide students with practical experience working in governmental agencies, nonprofit organizations, corporations, and the specialized research centers and laboratories of the College.

Undergraduate Research Opportunities

Undergraduate research internships allow qualified undergraduate students to work with research laboratory directors and faculty in departments and specialized research centers, thus giving the student a chance for a unique experience in the design and conduct of research and scholarship. Students are advised to consult with their department advisers on research opportunities available in the major.

Special Resources and Opportunities

James MacGregor Burns Academy of Leadership

1107 Taliaferro Hall, (301) 405-6100

The James MacGregor Burns Academy of Leadership was established to foster future generations of public leaders through education, research, service and training. The Academy's educational undergraduate activities include the College Park Scholars in Public Leadership program, courses in advanced leadership studies, and extensive internship and independent study opportunities. The Academy's research activities focus on leadership, political leadership, ethics, and political participation. The Academy houses three leadership networks: the International Leadership Association, a professional organization for all those interested in leadership; ISM, a national diversity and leadership program for college-age youth; and the Kellogg Fellows Leadership Alliance, a national network of experienced community leaders. The Academy has provided leadership and civic education training in the U.S. and around the world. Curriculum projects and other initiatives are funded by foundations and the federal government. Nance Lucas, Ph.D., is the Director and Donald O. Clifton, Ph.D., is the Chair of the Board.

Office of Academic Computer Services (OACS)

0221 LeFrak Hall, (301) 405-1670

The College believes strongly that the study of behavioral and social sciences should incorporate both quantitative and computational skills. Consequently, curricula in most departments require some course work in statistics, quantitative research methods, and information technology. The BSOS Office of Academic Computer Services provides undergraduate students in the College with both facilities and staff assistance to satisfy a broad range of computer-related needs. The OACS operates five computer classrooms and a specialized graphics lab that offer a wide variety of popular software, color and black-and-white printing, and both text and graphics scanning. Undergraduate students are also encouraged to take advantage of OACS's learning resources including free computer and statistics training courses, help documentation, a library of computer-related texts, and free access to research data.

Research and Service Units

The College of Behavioral and Social Sciences sponsors several special purpose, college-wide research centers. These centers include **The High Intensity Drug Traffic Agency** and the **Center for Substance Abuse Research**. These interdisciplinary centers often offer internships and a selected number of undergraduate research assistant opportunities for interested students. These research experiences offer excellent preparation for future graduate study and/or job opportunities in the private and public sectors.

The Center for International Development and Conflict Management

0145 Tydings Hall, (301) 314-7703
Director: Ernest Wilson

The Center for International Development and Conflict Management is a research center in the Department of Government and Politics focusing on the management and resolution of protracted conflict in the world today. Established in 1981, the Center has a staff composed of University faculty, visiting fellows, and associates involved in study of contemporary international and intercommunal conflicts, including their causes, dynamics, management strategies, and peaceful resolution.

Center for Substance Abuse Research (CESAR)

Director: Eric D. Wish, (301) 403-8329

Established in 1990, CESAR is a research unit sponsored by the College of Behavioral and Social Sciences. CESAR staff gather, analyze, and disseminate timely information on issues of substance abuse and monitor alcohol- and drug-use indicators throughout Maryland. CESAR aids state and local governments in responding to the problem of substance abuse by providing the above-stated information, as well as technical assistance and research. Faculty members from across campus are involved with CESAR-based research, creating a center in which substance-abuse issues are analyzed from multidisciplinary perspectives. Students obtain advanced technical training and hands-on experience through their involvement in original surveys and research.

The Washington/Baltimore HIDTA Research Program

Director: Thomas H. Carr, 301-489-1700

Established in 1994, the Washington/Baltimore HIDTA Research Program is co-sponsored by the College of Behavioral and Social Sciences and President Bush's Office of National Drug Control Policy. This program is funded by Congress to help coordinate and fund the fight against drug-related crime and to treat drug-addicted criminal offenders. HIDTA efforts integrate prevention and law enforcement at the community level to reduce the involvement of high-risk youth in drug trafficking careers and criminal behavior. HIDTA also works with private industry and government to form partnerships geared toward the development of commercial software for use by law enforcement, criminal justice, treatment and regulatory agencies. The Washington/Baltimore HIDTA employs a multi-disciplinary approach that incorporates law enforcement, treatment/criminal justice and prevention through a regional strategy that includes all these disciplines. Faculty members from across campus are involved with HIDTA-based research, and students obtain advanced technical training and hands-on experience through their involvement in data collection, original surveys, geo-mapping and research.

THE ROBERT H. SMITH SCHOOL OF BUSINESS (BMGT)

Office of Undergraduate Studies: 1308 Van Munching Hall, (301) 405-2286
www.rhsmith.umd.edu

Professor and Dean: Frank

Professor and Associate Dean: Leete

Associate Dean of the Center for Executive Education: Koerwer

Professor and Director of Doctoral Program: Gordon

Assistant Dean of the Masters' Programs: Scricca

Assistant Dean and Director for Undergraduate Programs: Cleveland

Associate Director for Undergraduate Programs: Horick

Associate Director for Undergraduate Programs at Shady Grove: Glasgow

Academic Advisors for Undergraduate Programs: Anroman, Buddenhagen, Harrington, McAllister, Smit

The Robert H. Smith School of Business recognizes the importance of education in business and management to economic, social, and professional development through profit and nonprofit organizations at the local, regional, national, and international levels. The faculty are scholars, teachers, and professional leaders with a commitment to superior education in business and management, specializing in accounting, finance, decision and information sciences, operations and quality management, management and organization, marketing, logistics and transportation, and business and public policy. The Smith School of Business is accredited by the International Association for Management Education (AACSB), the official national accrediting organization for business schools.

Degrees

The university confers the following degrees: Bachelor of Science (B.S.), Master of Business Administration (M.B.A.), Master of Science (M.S.), and Doctor of Philosophy (Ph.D.). Information concerning admission to the M.B.A. or M.S. program is available from the School's Assistant Dean of the Masters' Programs (301-405-2279).

Undergraduate Program

The undergraduate program recognizes the need for professional education in business and management based on a foundation in the liberal arts. In addition, the program's internationally integrated curriculum prepares students to be effective and responsible managers in today's dynamic business environment.

A student in business and management selects a major in one of several curricula: (1) Accounting; (2) Decision and Information Sciences; (3) Finance; (4) General Business and Management (including an International Business option); (5) Operations and Quality Management; (6) Marketing; (7) Human Resource Management; or (8) Logistics and Transportation.

Honors Program

The Robert H. Smith School of Business Honors Program has two components: class study and individual study. Together, these provide for in-depth inquiry and research into the field of business. Admission is administered through the Honors Admission Committee. Interested students should contact the Honors Program Coordinator in the Office of Undergraduate Programs, 1308 Van Munching Hall, (301) 405-2286.

Advising

General advising for students admitted to the Smith School of Business is available Monday through Friday in the Office of Undergraduate Programs, 1308 Van Munching Hall, (301) 405-2286. It is recommended that students visit this office each semester to ensure that they are informed about current requirements and procedures.

Transfer students entering the university can be advised during spring, summer, and fall transfer orientation programs. Contact the Orientation Office for further information, (301) 314-8217.

Admission to Smith School of Business

See chapter 1 for general LEP admissions policies.

Current policies affect students entering the University System of Maryland or the Maryland Community College system in Spring 2001 and thereafter. Students enrolled at the University System of Maryland or in the Maryland Community College system prior to Spring 2001 will continue to be admitted under the admissions criteria in effect for the Fall 1998 or Fall 1999 term, depending upon the student's initial date of matriculation. Grand-fathered admission will end in Fall 2003, when all students must meet the current admission standards. Grand-fathered students, however, will be given the option of entering under the new requirements prior to Fall 2003.

Freshman Admission

Admission to the BMGT degree programs is competitive. A limited number of freshmen who demonstrate outstanding talent will be admitted directly to their BMGT major of choice (e.g. Accounting, Finance, etc.). Admission will be on a space available basis. All students are urged to apply early. All students admitted directly to BMGT as freshmen must demonstrate satisfactory progress (2.00 cumulative GPA or better) plus completion of Gateway courses (BMGT 220, BMGT 230, ECON 200 or 201, and MATH 220 or 140—each with a "C" or better).

Students not directly admitted to the Smith School of Business can be admitted to the Division of Letters & Sciences, with some of these students enrolling in the Markets and Society program. These students can apply for admission to Business by the semester in which 45 credits are completed. (See Transfer Admission below)

Transfer Admission for Students from On or Off Campus

All new transfer students, as well as students presently enrolled at the College Park campus in other majors, who wish to pursue majors in the Smith School of Business must meet the following requirements by the semester in which 45 credits are completed:

- 3.00 cumulative grade point average (.15e

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Economics Requirements

3-6 credits of approved upper-level economics courses are required by the Smith School of Business (see above Junior-Senior College Requirements). Please see the Undergraduate Studies office in 1308 Van Munching Hall for approved options under each major.

Major Requirements

Under each major, 18-21 credits are required. The specific requirements for each major are listed on the following pages.

A Typical Program for the Freshman and Sophomore Years

Freshman Year	Credit Hours
CORE and/or electives	9
ENGL 101 or equivalent	3
MATH (depending on placement)*	3
First semester total	15

CORE and/or electives	9
COMM 100 or 107	3
MATH or BMGT 230/231*	3
Second semester total	15

Sophomore Year	
CORE	3
BMGT 201 (Prereq. Sophomore Standing)	3
BMGT 220 (Prereq. Sophomore Standing)	3
ECON 200	4
MATH or BMGT 230/231*	3
Third semester total	16

CORE and/or electives	6
ECON 201	4
BMGT 221 (Prereq. BMGT 220)	3
BMGT 230 (Prereq. MATH 220*) or 231* (Prereq. MATH 141) or elective	3
Fourth semester total	16

* See Freshman-Sophomore School requirements for appropriate math and statistics courses.

Curricula

Accounting

Chair: J. Bedingfield

Professors: Bedingfield, Gordon, Kim, M. Loeb, S. Loeb

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	Credit Hours
BMGT 332—Operations Research for Management Decisions	3
BMGT 385—Production Management	3
BMGT 486—Total Quality Management	3
One of the following courses (check prerequisites):	3
BMGT 321—Cost Accounting	
BMGT 440—Financial Management	
Managerial or Technical Track Options	6
Total	18
Managerial Track, two of the following courses:	
BMGT 360—Human Resource Management	
BMGT 372—Introduction to Logistics Management	
BMGT 472—Advanced Logistics Operations	
OR	
Technical Track, two of the following courses:	
BMGT 430—Linear Statistical Models in Business	
BMGT 431—Design of Statistical Experiments in Business	
BMGT 434—Introduction to Optimization Theory	
BMGT 435—Introduction to Applied Probability Models	

Finance

Chair: Senbet
 Professors: Kolodny, Madan, Maksimovic, Senbet, Unal
 Associate Professors: Bakshi, Phillips, Prabhala, Triantis, Wermers
 Assistant Professors: Avramov, Chen, Heston, Hvidjkaer, Ju, Marquez

Finance encompasses:

- (1) Corporate finance: The financial management of corporations
- (2) Investments: The management of securities and portfolios
- (3) Financial institutions and markets: The management of financial institutions and the study of their role in the economy

The Finance curriculum is designed to familiarize the student with the institutions, theory, and practice involved in the allocation of financial resources within the private sector. It provides an educational foundation for careers involving corporate financial analysis and management, investment analysis and portfolio management, investment banking, risk management, commercial banking, and international finance; it also provides a foundation for graduate study in business administration, economics, and law.

Course requirements for the junior-senior curriculum concentration in Finance are as follows:

	Credit Hours
Both of the following courses:	6
BMGT 343—Investments	
BMGT 440—Financial Management	
Three of the following courses:	9
BMGT 443—Security Analysis and Valuation	
BMGT 444—Futures Contracts and Options	
BMGT 445—Commercial Bank Management	
BMGT 446—International Finance	
BMGT 447—Internship and Research in Finance	
BMGT 498—Special Topics in Business and Management (Finance)	
One of the following courses:	3
BMGT 310—Intermediate Accounting	
BMGT 332—Operations Research for Management Decisions	
BMGT 430—Linear Statistical Models in Business	
BMGT 434—Introduction to Optimization Theory	
Total	18

Management and Organization

Chair: Smith
 Professors: Bartol†, Carroll†, Gannon, Gupta†, Levine, Locket†, Naman, Russell, Sims, Smith†, Taylor
 Associate Professor: Reger, Stevens
 Assistant Professor: Katila, Lepak, Lofstrom, Rindova, Tesluk, Williamson
 †Distinguished Scholar-Teacher

Human Resource Management is the direction of human effort. It is concerned with securing, maintaining and utilizing an effective work force. People professionally trained in Human Resource Management find career opportunities in business, government, educational institutions, and charitable and other organizations. Course requirements for the junior-senior curriculum in Human Resource Management are as follows:

	Credit Hours
BMGT 360—Human Resource Management	3
BMGT 460—Human Resource Management-Analysis and Problems	3
BMGT 462—Employment Law	3
BMGT 464—Organizational Behavior	3
BMGT 467—Undergraduate Seminar in HRM	3
One of the following courses (check prerequisites):	3
BMGT 362—Labor Relations	
BMGT 398—Internship in HRM	
GVPT 411—Public Personnel Management	
COMM 350—Public Relations Theory	
PSYC 451—Principles of Psychological Testing	
Total	18

Marketing

Chair: Rust
 Professors: Greer (Emeritus), Ratchford, Rust
 Associate Professors: Biehal, Kannan, Krapfel, Nickels, Shankar, Wagner
 Assistant Professors: Drinkwine, Frels, Hamilton, Lefkoff-Hagius, Sheinin, Whitney

The goal of marketing is to satisfy all the stakeholders of the firm—employees, dealers, stockholders, and customers—by seeing that quality goods and services are developed and provided at fair prices and in a way that benefits the community and society. World-class competition has forced businesses to develop marketing programs that are as good as the best. This means getting closer to the customer, joining other organizations to create value for the consumer, and designing integrated distribution and communication programs that provide a seamless flow from producers to consumers. Pricing, communication/promotion, product/service, and distribution activities inherent in the development of marketing programs are applicable to non-profit organizations, business-to-business organizations, and firms that sell to ultimate consumers.

Many types of careers are available to the marketing major. These include, but are not limited to: sales, advertising, retailing, product/service management, and marketing research. Because of the many different employment opportunities in marketing, many marketing electives are offered along with three core courses required of all marketing majors—consumer analysis, marketing research, and marketing strategy.

Course requirements for the junior-senior curriculum concentration in Marketing are as follows:

	Credit Hours
BMGT 451—Consumer Analysis	3
BMGT 452—Marketing Research Methods	3
BMGT 457—Marketing Policies and Strategies	3
Three of the following courses:	9
BMGT 351—Direct Marketing	
BMGT 353—Retail Management	
BMGT 357—Retailing and Marketing Internship (3 credits only)	
BMGT 372—Introduction to Logistics Management	
BMGT 450—Integrated Marketing Communications	
BMGT 453—Industrial Marketing	
BMGT 454—International Marketing	
BMGT 455—Sales Management	
BMGT 484—Electronic Marketing	
Total	18

Logistics, Business, and Public Policy

Chair: Grimm
 Professors: Corsi, Grimm, Leete, Morici, Preston†, Windle
 Associate Professors: Dresner, Evers
 Assistant Professors: Bailey, Carter, Feinberg, Newberg, Somaya
 Visiting Professors: Dewitt, Olson, Shaffer, Turner
 †Distinguished Scholar-Teacher

Logistics, Transportation, and Supply Chain Management

The supply chain encompasses all organizations involved in production of a good or service and its ultimate delivery to the end customer. Supply chain managers oversee many varied but inter-related processes including the flow of materials, information, and transactions (to name a few). Logistics deals primarily with the materials flow component of the supply chain, and logistics managers are responsible for fulfilling customer orders while simultaneously controlling distribution costs.



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While transportation is the heart of logistics; inventory control, warehousing, order processing, materials handling, packaging, and customer service are important logistics activities. These logistics activities comprise up to 30 percent of total costs for many businesses. The cost of freight transportation alone is about 8 percent of the nation's annual domestic product.

Course requirements for the junior-senior curriculum concentration in Logistics, Transportation, and Supply Chain Management are as follows:

BMGT 370—Introduction to Transportation in Supply Chain Management	3
BMGT 372—Introduction to Logistics and Supply Chain Management	3
BMGT 476—Applied Computer Models in Supply Chain Management	3
Two of the following courses	6
BMGT 373—Logistics, Transportation, and Supply Chain Management Internship	
BMGT 470—Advanced Transportation Management	
BMGT 472—Advanced Logistics Operations	
BMGT 475—Advanced Supply Chain Management Strategy and Technologies	
BMGT 477—International Supply Chain Management	
One of the following courses.....	3
BMGT 305—Survey of Business Information Systems and Technology (option for DIS majors only)	
BMGT 332—Operations Research for Management Decisions	
BMGT 385—Production Management	
BMGT 482—Business and Government	
BMGT 484—Electronic Marketing	
GEOG 373—Geographic Information Systems	
GEOG 430—Location Theory and Spatial Analysis or one of the following not selected above from BMGT 373, 470, 472, 475 or 477	

General Business and Management

The General Curriculum is designed for those who desire a broader course of study in business and management than offered in the other College curricula. The General Curriculum is appropriate, for example, for those who plan to enter small-business management or entrepreneurship where general knowledge of the various fields of study may be preferred to a more specialized curriculum concentration.

Course requirements for the junior-senior curriculum concentration in General Business and Management are as follows:

	Credit Hours
Accounting/Finance	
One of the following courses:	3
BMGT 321—Cost Accounting	
BMGT 440—Financial Management	
Management Science/Statistics	
One of the following courses:	3
BMGT 332—Operations Research for Management Decisions	
BMGT 385—Production Management	
BMGT 431—Design of Statistical Experiments in Business	
BMGT 433—Statistical Decision Theory in Business	
Marketing	
One of the following courses:	3
BMGT 353—Retail Management	
OR a higher number marketing course (check prerequisites)	
Personnel/Labor Relations	
One of the following courses:	3
BMGT 360—Human Resource Management	
BMGT 362—Labor Relations	
Public Policy	
One of the following courses:	3
BMGT 482—Business and Government	
BMGT 496—Business Ethics and Society	
Logistics, Transportation and Supply Chain Management	
One of the following courses:	3
BMGT 370—Introduction to Transportation in Supply Chain Management	
BMGT 372—Introduction to Logistics and Supply Chain Management	
Total	18

International Business

International Business is an option in the General Business major and responds to the global interest in international economic systems and their multicultural characteristics. This degree option combines the college-required courses with five International Business courses and a selection of language, culture, and area studies courses from the College of Arts and Humanities and the College of Behavioral and Social Sciences.

Course requirements for the junior-senior curriculum concentration in General Business and Management, International Business option, are:

	Credit Hours
BMGT 372—Introduction to Logistics and Supply Chain Management	3
BMGT 392—Introduction to International Business	3
BMGT 454—International Marketing	3
BMGT 477—International Supply Chain Management.....	3
BMGT 446—International Finance	3
Any 400-level BMGT course or an agreed-upon foreign language course..	3
Total	18

Students are strongly encouraged to complete the language option to increase the applicability of the International Business option.

Business and Law, Combined Program

In this program, a student completes three years in a chosen major in the business school and, on gaining admission to the University of Maryland School of Law, may use the first year of law school to complete the B.S. requirements provided he/she earns an average grade of C or better. Satisfactory completion of an additional two years in law school will earn the law degree. A student who fails to gain admission to law school, which is highly competitive and contingent on meeting the applicable standards of the school, will be permitted to complete the final year for the B.S. degree at College Park. Interested students are responsible for securing from the law school its current admission requirements. The student must complete all the courses required of students in the College, except BMGT 380 and BMGT 495. This means the student must complete all the pre-business courses; both upper-level ECON courses; BMGT 340, 350, and 364; all lower-level CORE requirements; the 15 to 21 hours in the student's specific business major; and enough additional electives to equal a minimum of 90 semester hours, 30 of which must be numbered 300 or above. No business law course can be included in the 90 hours. The last 30 hours of college work before entering law school must be completed in residence at College Park.

Entrepreneurship

Chair and Associate Professor: Shane
Assistant Professors: Baum, Kirsch, Sine

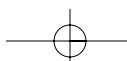
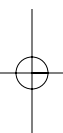
The Entrepreneurship Department offers the Entrepreneurship Citation Program which brings together selected students from business, engineering, computer science, life sciences, and the liberal arts, to create an entrepreneurial chemistry that will stimulate the creation and growth of new high-potential enterprises. Modeled after the award-winning QUEST program for business and engineering undergraduates, the Entrepreneurship Citation Program content is multidisciplinary, with program design and delivery directed toward discipline integration and strong connectivity to the world of practice.

Admission to the Entrepreneurship Citation Program is competitive. The program is open to students from all majors across campus, with 60% of the seats reserved for non-BMGT majors. Students will apply for admission to the program at the beginning of their third semester. Selection Criteria include:

- Minimum 28 credit hours completed at UMCP
- Minimum 3.0 cum G.P.A. preferred
- Essay describing the business opportunity the student wishes to pursue during the 2+ years in the program.

Course requirements for the citation are 12 credit hours in the following courses:

- BMGT 261: Starting & managing the Entrepreneurial Venture – semester 4
- BMGT 365: Financing the Entrepreneurial Venture – semester 5
- BMGT 366: Growth Strategies for Emerging Companies – semester 6
- BMGT 465: Business Plan for the New Venture – semester 7



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The Entrepreneurship program culminates in a group project in which students prepare business plans for competition evaluated by a panel of entrepreneurs & venture capitalists. In addition to the formal academic program, Citation students will also have many opportunities to be mentored by entrepreneurs in workshops, internships etc. For more details on this program, please visit <http://www.rhsmith.umd.edu/undergrad/entrepreneur.html>.

Quest Program

The University of Maryland's Quality Enhancement Systems and Teams Program (QUEST) program is a collaborative effort between the Robert H. Smith School of Business and the A. James Clark School of Engineering. QUEST graduates enter the work force with invaluable skills, excelling in teamwork, customer value management, process and product design, project management and customer satisfaction.

The QUEST Program consists of four team-based courses led by an interdisciplinary faculty with a senior level practicum that places students in the workplace for research and group problem-solving. Students will complete three courses devoted to the integration of quality in the workplace, applying the knowledge and skill-set they have gained from their major in the field of engineering or business. The capstone course gives QUEST students the opportunity to apply the principles of cross-functional thinking in a corporate environment.

For more details on this program including admissions, please visit the QUEST Program website at www.rhsmith.umd.edu/quest.

Honors

Honor Societies

Beta Gamma Sigma. National scholastic honorary society in business administration. To be eligible students must rank in the upper 5 percent of their junior class or the upper 10 percent of their senior class in the Smith School of Business. Students are eligible the semester after they have earned 45 credits at the University of Maryland, College Park, and have earned a total of 75 credits.

Student Awards

For high academic achievement, students in the School may receive recognition by the Dean's List; Delta Sigma Pi Scholarship Key; Distinguished Accounting Student Awards; Wall Street Journal Student Achievement Award; and Frito-Lay Student Athlete Scholar Award.

Scholarships

For details on available scholarships, please visit the following website, www.rhsmith.umd.edu/undergrad/Scholarships.htm.

Student Professional Organizations

Students may choose to associate themselves with one or more of the following professional organizations: Accounting Club; American Marketing Association; Society of Human Resource Management (Human Resource Management); Entrepreneurship Club (all business majors); Black Business Association; Dean's Undergraduate Advisory Council; Delta Sigma Pi (all business majors); Finance, Banking and Investments Society (finance); Gateway Club; Phi Chi Theta (all business majors); Logistics and Transportation Society; Information Systems Society; Global Business Society; and BMGT Honor Council.

Course Code: BMGT

COLLEGE OF COMPUTER, MATHEMATICAL, AND PHYSICAL SCIENCES (CMPS)

3400 A.V. Williams, (301) 405-2677
cmqsque@deans.umd.edu (for CMPS advising questions)
<http://www.cmeps.umd.edu/>

Dean: Stephen Halperin
Associate Dean: Ronald L. Lipsman
Associate Dean: Scott A. Wolpert
Assistant Dean: Deborah R. Bryant

"For a successful technology, reality must take precedence over public relations, for Nature cannot be fooled." Richard P. Feynman. Nationally recognized for our education, research, faculty and students, the College of Computer, Mathematical and Physical Sciences is a critical educational and scientific resource benefiting the region and the nation.

The college offers every student a high-quality, innovative and cross-disciplinary educational experience. Strongly committed to making studies in the sciences available to all, the College actively encourages and supports the recruitment and retention of women and minorities.

Our students have the opportunity of working closely with first-class faculty in state-of-the-art labs both on and off campus on some of the most exciting problems of modern science and mathematics. We have developed courses to reflect the evolving nature of IT subjects and the rapidly changing world of science and mathematics. As a new approach to undergraduate education, multiple tracks are being established within majors, including tracks for future teachers and tracks with an emphasis on computation.

Students participate in Departmental Honors programs, the Gemstone program and College Park Scholars; they apply their lab and classroom skills through Corporate Scholars internships at area companies. Excellent advising and career services are in place to help our undergraduates transition to graduate programs, public service or private sector commerce. Our highly skilled graduates pursue careers in a great many fields and professions.

Structure of the College

The following departments, programs and research units comprise the College:

- Department of Astronomy
- Department of Computer Science
- Department of Geology
- Department of Mathematics
- Department of Meteorology
- Department of Physics
- Center for Scientific Computation and Mathematical Modeling*
- Applied Mathematics and Scientific Computation
- Earth System Science Interdisciplinary Center
- Chemical Physics Program
- Physical Sciences Program
- Statistics Program
- Institute for Advanced Computer Studies
- Institute for Physical Sciences and Technology
- Institute for Research in Electronics and Applied Physics (joint with College of Engineering)

*See the separate listing for the program in chapter 7.

Degree Programs

The following Bachelor of Science (B.S.) degree programs are offered to undergraduates by the departments and programs of the College: Astronomy, Computer Engineering, Computer Science, Geology, Mathematics, Physics, and Physical Sciences.

In addition, Geology sponsors one of the areas of concentration in the Environmental Science and Policy program.

Citations

<http://www.cmeps.umd.edu/citation.htm>

The College offers Citations in the following areas:

- Citation in Astronomy
- Surficial Geology Citation
- Earth Material Properties Citation
- Earth History Citation
- Hydrology Citation
- Citation in Meteorology

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Citation in Weather and Climate
 Citation in Atmospheric Chemistry
 Citation in Actuarial Mathematics
 Citation in Applied Mathematical Modeling
 Citation in Statistics
 Citation in Discrete Mathematics

Citations in the College offer students in all disciplines the opportunity to pursue a structured program of study in a field outside their major. Each student who successfully completes a citation (12-18 credits) will have the accomplishment noted on their transcript. Consult departmental advisors and websites for further information.

Honors

Honors Programs

Undergraduate honors are offered to students in the Physical Sciences Program and the departments of Astronomy, Computer Science, Geology, Mathematics and Physics. Specific information is provided under the individual program descriptions.

College Park Scholars

CPS in Science, Discovery & the Universe—Director: John J. Hillman
 CPS in Earth, Life & Time—Director: Thomas R. Holtz, Jr.

The College co-sponsors two College Park Scholars programs, Science, Discovery & the Universe and Earth, Life & Time. These living/learning programs focus around the academic disciplines of the faculty, space sciences (in particular planetary science) and the historical natural sciences (in particular paleontology and evolutionary biology), respectively. In these two-year programs for incoming freshmen, students are brought together around common intellectual interests. The program seeks to inspire students to develop as their interests and intellectual capacity by building a community where everyone has mutual interests in scholarly pursuits. The Scholars program allows students to experience a small college environment and to work closely with faculty working at the forefront of their fields of expertise.

Dean's List. Each student who has passed at least 12 hours of academic work in the preceding semester with an overall average grade of at least 3.5 will be placed on the Dean's List.

Associate Dean's Commendation. Each student who has passed at least 12 hours of academic work in the preceding semester with an overall average grade between 3.0 and 3.5 will be placed on the Associate Dean's Commendation list.

J. R. Dorfman Prize for Undergraduate Research. An award is presented at each spring Academic Festival for the best research project conducted on or off campus by a current College undergraduate major.

Advising

The College Undergraduate Education Office, 3400 A.V. Williams Building, (301) 405-2766, centrally coordinates advising and the processing and updating of student records. Inquiries concerning university regulations, transfer credit, and other general information should be addressed to this office. Specific departmental information is best obtained directly from the departments. The College has mandatory advising with the basic component being 30-minute in-person sessions for registration and future course planning. Walk-in advising is available from 8:30 a.m. – 5:00 p.m., Monday – Friday. Students may e-mail cmqsque@deans.umd.edu for general questions. Students may also send e-mails to individual advisors, or call 301-405-2677 or fax questions to 301-405-9377.

Scholarships

http://www.cmqs.umd.edu/undergraduate_scholarship.htm

Limited numbers of merit-based scholarships are available for new students. The College Scholarship Committee reviews admissions applications and selects recipients.

For currently enrolled students the College accepts most merit and need-based award and scholarship applications on the College Scholarship Application Form. Students should complete one form only and submit either electronically or via surface mail. Applicants will be considered for all merit and need-based scholarships administered by the College for which they are eligible. For best consideration, College scholarship applications for each academic year should be submitted by March 15 for the school year beginning the following September.

Departmental scholarships may have different deadlines. For additional information visit our website.

Recruitment

3400 A.V. Williams (301) 405-2677
<http://www.cmqs.umd.edu/undergraduate.htm>
 Recruitment Coordinator: Tobie Matava (tmatava@deans.umd.edu)

The College's Recruitment Coordinator serves as a resource and contact person for prospective students interested in bachelor degrees and also serves as a liaison to the Office of Undergraduate Admissions.

Graduation Requirements

1. A minimum of 120 semester hours with at least a C average is required of all Bachelor of Science degrees from the College.
2. Forty-three credit hours that satisfy the general education CORE program requirements of the University. In some instances, courses taken to satisfy these requirements may also be used to satisfy major requirements.
3. Major and supporting coursework as specified under each department or program.
4. The final 30 semester hours must be completed at College Park. Occasionally, the Dean may waive this requirement for up to 8 of the 30 credits cited. Such a waiver is considered only if the student already has 30 credits in residence.
5. Students must be enrolled in the program in which they plan to graduate by the time they register for the last 15 hours.

CMPS Internship and Career Services

3401 A.V. Williams Building, (301) 405-0486
<http://www.cmqs.umd.edu/careers/index.htm>
 Director: Elena P. Mayberry

The College prepares students to succeed in their chosen professions. While the classroom provides academic preparation, the Internships and Career Services office assists students with career related issues. In cooperation with the University of Maryland's Career Center, the Internships and Career Services office provides a full array of employment resources for students. Please visit the career services website.

The office facilitates internships for students majoring in astronomy, computer science, geology, mathematics, physical sciences and physics. Internships are a very important means for students to apply what they have learned in the classroom to real life experiences. Internships are also an invaluable tool for career exploration and they allow students to relevantly build their resumes while still in school.

Research and Service Units

Institute for Advanced Computer Studies

2119 A. V. Williams Building, (301) 405-6722
<http://www.umiacs.umd.edu/>
 Professor and Director: Joseph JaJa

The faculty at the Institute for Advanced Computer Studies conduct fundamental research at the interface between computer science and other scientific disciplines supported by a state-of-the-art computing infrastructure. These interdisciplinary research programs offer opportunities for thesis research and classroom instruction, with a planned new focus on human-computer interaction, bioinformatics and computational biology. The Institute is internationally known in computer vision and graphics, parallel and distributed computing, information visualization and educational technologies, natural language processing and computational linguistics, software engineering, and multimedia and internet computing. Courses and thesis research guidance by Institute faculty are provided under the auspices of the labs, centers, and the academic departments affiliated with the Institute.

Institute for Physical Science and Technology

4211 Computer and Space Sciences Building, (301) 405-4874
<http://www.ipst.umd.edu/>
 Professor and Director: Katepalli R. Sreenivasan

The faculty members of the Institute for Physical Science and Technology are engaged in the study of pure and applied science problems that are at the boundaries between those areas served by the academic departments. Areas of emphasis vary but include scientific computation, statistical physics and chaotic dynamics, chemical physics, optical (laser) physics, and space and upper atmospheric physics. These interdisciplinary problems afford challenging opportunities for thesis research and classroom instruction. Courses and thesis research guidance by Institute faculty are provided either through the graduate program in chemical physics, the scientific computation and mathematical modeling program, or under the auspices of other departments.

Institute for Research in Electronics and Applied Physics

Energy Research Building, (301) 405-4951
<http://www.ireap.umd.edu/>
 Associate Professor and Director: Patrick G. O'Shea

The Institute for Plasma Research is jointly administered by the College and the A. James Clark School of Engineering. The faculty members in IPR study diverse scientific problems that are on the boundaries between physics and engineering, and teach relevant courses in the College and Engineering Departments. IPR conducts experimental and theoretical research in nonlinear dynamics (chaos), high-temperature plasma physics, plasma spectroscopy, relativistic microwave electronics, high-brightness charged particle beams, free-electron lasers, laser-plasma interactions, ion beam microfabrication techniques, and microwave sintering of advanced materials. IPR is recognized internationally as a leading university research center in these areas of research. We actively encourage undergraduate participation in our research program through independent study, special projects, and internships under faculty supervision.

Center for Automation Research

Center for Automation Research
 4417 A.V. Williams Building, (301) 405-4526
<http://www.cfar.umd.edu/>
 Professor and Director: Ramalingam Chellappa

The Center for Automation Research is part of the Institute for Advanced Computer Studies. Its faculty conduct fundamental research in areas related to spatial data, computer graphics, image processing, and computer vision. This interdisciplinary research contributes to classroom instruction, and provides opportunities for thesis research, in these areas. Courses and research guidance by the Center's faculty are conducted under the auspices of the laboratories and academic departments affiliated with the Center.

Earth System Science Interdisciplinary Center

2207 Computer and Space Science Building, (301) 405-5599
<http://essic.umd.edu/>
 Professor and Director: Antonio J. Busalacchi

ESSIC is a joint center between the Departments of Meteorology, Geology, and Geography together with the Earth Sciences Directorate at the NASA Goddard Space Flight Center. The goal of the Center is to enhance our understanding of how the atmosphere-ocean-land-biosphere components of the Earth interact as a coupled system. This is accomplished via studies of the interaction between the physical climate system (e.g., El Nino) and biogeochemical cycles (e.g., greenhouse gases, changes in land use and cover). The major research thrusts of the Center are studies of Climate Variability and Change, Atmospheric Composition and Processes, and the Global Carbon Cycle (including Terrestrial and Marine Ecosystems/Land Use/Cover Change). The manner in which this research is accomplished is via analyses of in situ and remotely sensed observations together with component and coupled ocean-atmosphere-land models. Together this provides a foundation for understanding and forecasting changes in the global environment and regional implications. Data assimilation and regional downscaling provide the means by which the observations and models are linked to study the interactions between the physical climate system and biogeochemical cycles from global to regional scales. Courses and research guidance by Center faculty are provided through the Departments of Geography, Geology and Meteorology, or under the auspices of College interdisciplinary listings.

Center for Scientific Computation and Mathematical Modeling

3301 A. V. Williams Building, (301) 405-1714
<http://www.cscamm.umd.edu/>
 Professor and Director: Eitan Tadmor

The ability to compute at tremendous speeds with gigantic data sets is enabling advances in nearly every discipline. Scientific computation plays a leading role in the study of protein folding, climate evolution, weather prediction, star formation, plasma turbulence, quark-gluon interactions and high-temperature superconductivity. At the Center for Scientific Computation and Mathematical Modeling, graduate students and faculty are working together to develop and to understand fundamental computational techniques, algorithms and analytical tools, and to apply this understanding to outstanding scientific problems in a variety of fields. Undergraduate research opportunities exist for students who are interested in learning how to use computers to understand how the world works.

Materials Research Science and Engineering Center

2120 Physics Building, (301) 405-8349
<http://mrsec.umd.edu/>
 Professor and Director: Ellen Williams

Part of a national network of NSF-funded Materials Research Centers, faculty activities in MRSEC's mandate includes materials research, industrial collaborations and educational outreach. Faculty research focuses on polarization dynamics in ferroelectric thin films, surface nanostructures-from fluctuations to driven systems and metal oxides with high spin polarization. MRSEC actively encourages undergraduate participation in their research program through participation in independent study, special projects and internships under faculty supervision and pays special attention to encouraging women and minorities to enter science.

Center for Superconductivity Research

Physics Building, (301) 405-6129
<http://www.csr.umd.edu/>
 Professor and Director: Richard L. Greene

The Center for Superconductivity Research (CSR) conducts interdisciplinary research in the fields of superconductivity, magnetism, ferroelectricity, the synthesis and characterization of advanced materials, the development of scanning-probe microscopes, and quantum computing. Their work impacts technology areas such as communications, digital and analog electronics, medical instrumentation, and computers. The CSR consists of approximately 12 scientists who are also teaching faculty members of the Departments of Physics, Electrical Engineering, Chemistry, or Materials science, as well as another 18 scientists and engineers who are visitors, post-docs, or staff members. Approximately 30 graduate students are working on their research dissertation projects with members of the CSR faculty. The CSR is dedicated to supporting undergraduate research, with more than 20 undergraduates doing research projects each year.

COLLEGE OF EDUCATION (EDUC)

Benjamin Building
 Office of Student Services: (301) 405-2344
 E-mail: educ-umd@umail.umd.edu
<http://www.education.umd.edu>

Dean: Edna Szymanski

The College of Education is a professional college committed to advancing the science and art of teaching/learning, including the practices and processes which occur from infancy through adulthood in both school and non-school settings. The College's mission is to provide preparation for current and future teachers, counselors, administrators, educational specialists, and other related educational personnel, and to create and disseminate the knowledge needed by professionals and policy makers in education and related fields.

The College is organized into six departments, three of which offer undergraduate majors in teacher education: the Department of Curriculum and Instruction, which offers elementary and secondary education programs; the Department of Human Development and Institute for Child Study, which offers an early childhood program; and the Department of Special Education. Enrollment in the professional teacher education programs in the three departments is limited to those who meet the selective admission requirements specified below.

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Only students who have been fully admitted to the teacher education programs are permitted to enroll in the professional education course sequences. Students with other majors who have an interest in the area of education may wish to enroll in a variety of other courses offered by the College that deal with schooling, human development, teaching/learning styles, and interaction processes. Students with majors in the Arts and Sciences who have an interest in teaching may wish to consider one of the multiple options for secondary education listed below.

In carrying out its mission, the College is committed to a society which is open to and supportive of the educational aspirations of the widest population of learners, and to continuous research and evaluation in relation to teaching and learning in a multicultural, high-tech world. At times, students may be invited to participate actively with graduate students and faculty members in research undertakings and evaluation processes. Students make use of Educational Technology Services, the micro-teaching laboratory, and professional development in school settings.

In addition to the CORE or USP program requirements, education majors have the opportunity to complete classes in the arts, sciences and/or humanities. In the teacher education courses, students develop professional skills through active experiences in the college classroom and participate in exploring, learning and practicing with children and teachers in classrooms in the community.

Secondary Education Program Options

The College of Education now has multiple pathways for students who are interested in teaching at the secondary level.

The **Dual Major** option, which is designed for incoming freshmen or sophomores, leads to a Bachelor's degree with a major in an academic content area plus a second major in secondary education. All secondary education majors are required to have an academic content major. Candidates who follow the proposed sequencing of courses can complete both majors in four years with careful advisement.

The **Citation Option**, which is intended for sophomores and juniors in a content major, permits potential teacher candidates to enroll in a sequence of education courses that helps them to determine if teaching is a viable career option for them. The twelve to eighteen credit citation option may be taken prior to admission into a teacher preparation program. A selected twelve credits also may count toward the certificate in secondary education or the dual major for those students who elect to pursue teacher certification in secondary education. Students who successfully complete four citation courses but who do not move into one of these two certification paths will receive a citation at the time of graduation.

The **Certificate Program**, which is designed for sophomores, juniors, and seniors in a content major, requires a major and Bachelor's degree in an approved academic content area, plus the completion of a certificate program for secondary education. Selected coursework from the citation option may be taken prior to admission into the certificate option with up to twelve credits counting towards the certificate in secondary education. The certificate program leads to state approved certification as a secondary teacher in a content area.

The **BS/MS Fast Track Certification Program**, which is intended for content majors entering the junior or senior year, is for talented students with a minimum GPA of 3.0 who enroll in a Bachelor's degree program in a content area and elect to continue in a Master's level program leading to certification in secondary education. Nine credits of the program may count for both the Bachelor's and Master's degrees. Prior approval is required for students electing this option. This program can be completed in two semesters following the completion of the Bachelor's degree.

Detailed information about these secondary education program options is available through the Department of Curriculum and Instruction, Room 2311 Benjamin (301/405-3324) and at the College of Education Website, www.education.umd.edu.

Admission to Teacher Education Professional Course Work

Applicants to the University of Maryland who have declared an interest in education are admitted to a department in the College. All majors must meet the selective admission requirements for full admission into the College of Education in order to enroll in course work in the professional teacher education degree program.

For full admission into a teacher education major, a student must (1) complete the English and math lower-level fundamental studies (six credits) with a grade of C or better; (2) earn 45 semester hours with an overall cumulative grade point average of at least 2.5 on a 4.0 scale; (3) submit a personal goal statement that indicates an appropriate commitment to professional education; (4) have prior experiences in the education field; (5) submit three letters of recommendation/reference; and (6) have a passing score on the Praxis I. Admission application forms are available in Room 1204 of the Benjamin Building. Only those who are admitted are able to enroll in the professional education sequence. An overall grade point average of 2.5 must be maintained after admission to Teacher Education to continue in the professional education programs. A Teacher Education Appeals Board reviews appeals from students who do not meet the admissions, advancement, or retention criteria. Consult the Student Services Office (Room 1204, Benjamin) for policies and procedures regarding appeals.

Criteria for admission to the Teacher Education program apply to any teacher preparation program offered by the University of Maryland. Thus, students desiring a major in music or physical education should apply to the College of Education for admission to the professional program in Teacher Education. Students who are not enrolled in the College of Education but who, through an established cooperative program with another college, are preparing to teach must meet all admission, scholastic and curricular requirements of the College of Education. The professional education courses are restricted to degree-seeking majors who have met College of Education requirements for admission and retention.

Gateway Requirements for Early Childhood and Elementary Education Programs

The Early Childhood and Elementary Education programs are Limited Enrollment Programs, which admit students on a space-available basis. In addition to the requirements for admission to teacher education that are listed above, early childhood and elementary education majors must meet the following gateway requirements:

- (1) completion of a four-credit CORE laboratory physical science, a four-credit CORE laboratory biological science, Elements of Mathematics (MATH 210), and Elements of Geometry (MATH 211) with a minimum cumulative GPA in these four courses of 2.75
- (2) completion of Introduction to Teaching (EDCI 280) with a grade of B or better

All first-time freshmen declaring a major in either elementary or early childhood education will be admitted directly into the program. Also, first-time freshmen, who were not directly admitted, and freshman transfer students, who would have been directly admitted had they applied, will be able to declare either elementary or early childhood as their major if they do so before the end of the registration period during their second semester of enrollment. Once admitted, these students must meet the standards for full admission to teacher education and successfully complete the early childhood/elementary education gateway requirements by the semester in which they complete 45 University of Maryland credits or within two semesters of admittance if they are second semester freshmen.

Currently enrolled students and off-campus transfer students who wish to declare themselves majors in early childhood or elementary education before or during the semester in which they attain 56 credits may do so provided they meet the standards for full admission to teacher education and have successfully completed the gateway requirements listed above. Students who have not met the above requirements, and who have not been admitted to the early childhood or elementary education programs by the time they have completed 56 credits, still may apply for admission when they meet the requirements. However, they will be admitted on a space available basis. A competitive GPA will be applied to restrict enrollment to the number of available spaces. All students denied admission may appeal to the College of Education.

Students may be granted admission to the early childhood or elementary education limited enrollment programs only once. Therefore, once a student has been admitted to the limited enrollment programs, if the student is later dismissed for failure to complete the gateway requirements in a timely manner, the student is not entitled to reapply to the program.

Detailed information regarding admission to the Teacher Education program, including the gateway requirements for Early Childhood and Elementary Education, is available in the Student Services Office, Room 1204 Benjamin (301/405-2344).

Student Teaching

Student teaching is the culminating clinical field experience in the teacher preparation program. It is a yearlong internship, which takes place in a Professional Development School (PDS) setting. A PDS is a school that has entered into a collaborative partnership with the College of Education to provide quality academic and clinical training for teacher candidates and meaningful professional development experiences for practicing teachers. The yearlong internship consists of one semester of methods and one semester of student teaching. Each teacher candidate's internship will vary according to the unique attributes of their teacher education program. All internships will provide teacher candidates with the opportunity to integrate theory and practice through a comprehensive, reality-based experience. The yearlong internship is arranged through the College of Education in collaboration with the Professional Development School Coordinators and the designated schools in the partnership.

The yearlong internship is a full-time commitment. Interference with this responsibility because of employment or course work is strongly discouraged. Teacher candidates assigned to schools for this internship are responsible for their own transportation and living arrangements and should be prepared to travel to whichever school has been assigned. **Student teaching requires a special fee. Please refer to the Schedule of Classes under Financial Information: Fees.**

In order to receive a yearlong internship placement, all teacher candidates must make application the semester prior to the beginning of the methods portion of the internship year. Prospective student teachers must have been admitted to Teacher Education and have completed all prerequisites. Prior to assignment, all students in teacher preparation programs must have: (1) maintained an overall grade point average of at least 2.5 with a minimum grade of "C" in every course required for the major; (2) satisfactorily completed all other required course work in their program; (3) received a favorable recommendation from their department; (4) attained qualifying scores for the State of Maryland on the Praxis I and Praxis II assessments; (5) applied for a year-long internship placement through the College of Education during the semester prior to the internship year; (6) received favorable ratings from prior supervised experiences in school settings; and, (7) submitted a criminal history disclosure statement. In addition, state law gives the local school to which the student teacher is assigned the discretion to require a criminal background check prior to placement. Early Childhood Education students must have a certificate indicating freedom from tuberculosis and proof of immunization.

College of Education Repeat Policy

All registrations in the student teaching portion of the year-long internship, regardless of whether a student withdraws or takes a leave of absence, will be counted as an attempt under the campus repeat policy. Only two registrations will be allowed. After two registrations, further attempts at student teaching must be approved by the department and the school-system professionals involved in the teacher candidate's student teaching experience. This policy applies only to students in the College of Education during the student teaching portion of the year-long internship.

Graduation Requirements

The College of Education confers the degrees of Bachelor of Arts (B.A.) or Bachelor of Science (B.S.) depending on the amount of liberal arts study included in a particular degree program. Minimum requirements for graduation are 120 semester hours. Specific departmental program requirements for more than the minimum must be fulfilled.

In addition to the university's general education requirements (CORE) and the specific requirements for each curriculum, the College requires that all majors complete a Foundation of Education course (e.g., EDPL 301 or 401) and, depending upon the teacher education major, six to twelve semester hours of reading course requirements. A grade of C or better is required in all pre-professional and professional course work required for the major. An overall grade point average of 2.5 must be maintained after admission to Teacher Education. A grade of S is required in student teaching. All teacher candidates are required to attain qualifying scores for the State of Maryland on the Praxis I and Praxis II assessments. Detailed information about the Praxis assessments is available in the Student Services Office, Room 1204 Benjamin.

Exceptions to curricular requirements and rules of the College of Education must be recommended by the student's advisor and department chairperson and approved by the Dean.

Accreditation and Certification

All bachelor's-degree teacher preparation programs are accredited by the National Council for Accreditation of Teacher Education and have been approved by the Division of Certification and Accreditation of the Maryland State Department of Education. Accreditation provides for reciprocal certification with other states that recognize national accreditation.

The Maryland State Department of Education issues certificates to teach in the public schools of the state. In addition to graduation from an approved program, the Maryland State Department of Education requires satisfactory scores on the Praxis I and II exams for certification. At the time of graduation, the College informs the Maryland State Department of Education of the graduate's eligibility for certification. Under Maryland law, criminal background checks may be required and considered by the State Department of Education in the awarding of teaching certification, and by employers before granting employment in the teaching field. Certification may be denied or revoked for individuals who have been convicted of crimes of violence and/or child abuse.

The Maryland State Department of Education (MSDE) requires completion of additional courses in reading. Students in secondary, K-12 (Art, Music and Physical Education), and secondary special education must complete a six credit sequence. Students in early childhood, elementary and early grades special education must complete a twelve credit sequence. Check with your department advisor for information on meeting these requirements.

College of Education Title II Institutional Data on Teacher Preparation

The College of Education pass rates for the Title II reporting period for the 2000-2001 academic year indicated that we exceeded the statewide pass rate in almost all categories. When the data were summarized, the College had a 95% pass rate while the statewide average was 92%. Data tables reporting single-assessment institutional pass rates, aggregate institutional pass rates, and summary pass rates are available through the College website, www.education.umd.edu. Information on the number of students enrolled and the student teaching experiences is highlighted below:

- Total number of students enrolled during 2000-2001. **1251**
- Total number of students in programs of supervised student teaching during academic year 2000-2001. **384**
- Total number of supervising faculty for the teacher preparation program during 2000-2001. **56**
- The student teacher/faculty ratio. **6.5 students per faculty**
- The average number of hours per week required of student participation was **40 hours**. The total number of weeks of supervised student teaching required is **15 weeks**. The total number of hours is 600 hours.
- The teacher preparation program is currently **approved** by the state.
- The teacher preparation program is **not** currently designated as "low-performing" by the state as defined by section 208(a) of the HEA of 1998.

Special Resources and Opportunities

The College of Education offers many special resources and facilities to students, faculty, and the community:

Center for Children, Relationships and Culture
 Center for Educational Policy and Leadership
 Center for Young Children
 Institute for the Study of Exceptional Children and Youth
 Maryland Assessment Research Center for Education Success (MARCES)
 Maryland Institute for Minority Achievement and Urban Education
 Maryland Literacy Research Center
 Mathematics and Science Teaching Centers
 National Center on Education, Disability, and Juvenile Justice
 Reading Center

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The Student Services Office

1204 Benjamin Building, (301) 405-2344

The Student Services Office provides academic advising for education students regarding admission, orientation, registration, graduation, and certification. At other times, students who have been admitted to the College of Education receive academic advising through their departments. Students are required to complete an academic audit in the Office of Student Services upon admission to the professional teacher education degree program. Information about the Praxis assessments and the College of Education Scholarships is also available in Student Services.

The Office of Laboratory Experiences

1207 Benjamin Building, (301) 405-5604

The Office of Laboratory Experiences (OLE), which is a subcomponent of the Institute of Teacher Education, is the liaison unit between the College and the public school systems that serve as laboratories for the preparation of teachers. While the primary role of the OLE is to provide teacher education students with sites for internships, student teaching, and pre-student teaching classroom experience, the office also operates inservice programs for teachers and facilitates research and professional development activities in the schools. OLE Placement Coordinators provide scheduled orientations for student teachers and are available to answer questions about field placements.

University Credentials Service, Career Center

3121 Hornbake Library, (301) 314-7225

<http://www.CareerCenter.umd.edu>

All seniors graduating in the College of Education are required to complete a credentials file with the Career Center. Credentials consist of student teaching evaluations and recommendations from academic and professional sources. An initial registration fee is required and enables the Career Center to send a student's credentials to interested educational employers, as indicated by the student. Students may also file credentials if completing teacher certification requirements or advanced degrees and if interested in teaching, administrative or research positions in education.

Other services available through TERP (The Employment Registration Program) Online include **job listings** in public and private schools and institutions of higher learning, **on-campus interviews** with in-state and out-of-state school systems, and **resume referral** to employers interested in hiring education majors. Information and applications from school systems throughout the country, job search publications, and various employment directories are available in the Career Center.

Educational Technology Services

0234 Benjamin Building, (301) 405-3611

Educational Technology Services helps the College advance the effective use of technology in support of student learning. The Center provides a range of technology and media resources and services to faculty and students. The Center also offers professional development courses, technology planning, consulting assistance, and other outreach services to educators and policy makers throughout the state and region. A number of research, development, and demonstration activities in educational technology are also conducted through the Center's grants and contracts with federal, state, and private funding sources.

Center for Mathematics Education

2226 Benjamin Building, (301) 405-3115

The Center for Mathematics Education provides a mathematics laboratory for undergraduate and graduate students. Occasionally there are tutoring services for children and adolescents. These services are offered in conjunction with specific graduate and undergraduate courses in elementary and secondary school mathematics. Center faculty are engaged in research in mathematics education, serve as consultants to school systems and instructional publishers, and provide in-service teacher education in addition to graduate degree programs.

Center for Young Children (CYC)

Center for Young Children Building, (301) 405-3168

The Center for Young Children is part of the Institute for Child Study/Department of Human Development in the College of Education. It offers a creative learning experience for children three, four, and five years

old whose parents are affiliated with the University. The Center engages in child study, curriculum development, and teacher training. Its research and observation facilities are available to parents, faculty, and other persons concerned with the care and education of young children.

Science Teaching Center

2226 Benjamin Building, (301) 405-3161

The Science Teaching Center offers undergraduate and graduate courses and programs in science teaching and in science education research. Center faculty conduct research in science learning and instruction, at levels from elementary school to college, as well as contribute to local, state, and national science education reform efforts.

Student and Professional Organizations

The College sponsors chapters of Phi Delta Kappa; the Teacher Education Association of Maryland Students (TEAMS), a state/national education association; the Student Assembly, a student governance organization; and Kappa Delta Pi, an honor society in education. The Mary McLeod Bethune Society is a pre-professional organization concerned with minority issues and education. A Chapter of the Council for Exceptional Children is open to undergraduate and graduate students in Special Education. The Plan of Organization for the College of Education calls for undergraduate student representation on both the College of Education Assembly and College Senate. These organizations assume a critical role in policy development for the College of Education. The Assembly meets at least once a year during the fall semester for its annual meeting. Senate meetings typically occur once a month during the fall and spring semesters. Six full-time undergraduate students are elected at-large as voting members of the Assembly. At least one representative from each of the departments with undergraduates serves on the Assembly. Of the six Assembly members, one is elected to serve as a delegate to the College of Education Senate. Students interested in receiving further information about the College Assembly or Senate should contact the Office of Student Services, Room 1204 Benjamin.

In several departments there are informal organizations of students. Students should contact the individual departments or, in the case of College-wide groups, the Student Services office, for additional information regarding these organizations.

A. JAMES CLARK SCHOOL OF ENGINEERING (ENGR)

1137 Glenn L. Martin Hall (formerly Engineering Classroom Building),
(301) 405-3855

<http://www.engr.umd.edu>

Professor and Dean: Nariman Farvardin
Associate Dean: Gary A. Pertmer
Engineering Student Affairs: (301) 405-3855
Cooperative Engineering Education: (301) 405-3863
Center for Minorities in Science and Engineering: (301) 405-3878
Women in Engineering: (301) 405-3931

The mission of the Clark School of Engineering at the University of Maryland is to provide quality engineering education, to conduct strong research programs, to foster a close partnership with industry and government, and to provide related service to the campus community and the community at large. A major focus of the School's activities is to provide a quality engineering education with sufficient scope to include the basic and specialized engineering training necessary to the current and emerging needs of society. The School has related responsibility to contribute to the advancement of knowledge by conducting research at the cutting edge of science and technology. Since science and technology are rapidly advancing, the School also has a professional responsibility to provide continuing education programs so the practicing engineer can remain effective. The School faculty and administration also sees as part of its mission, an obligation to serve the needs of the campus community and the community at large in the spirit of collegial cooperation.

Engineers also occupy an intermediary position between scientists and the public because, in addition to understanding scientific principles, they are concerned with the timing, economics, and values that define the use and application of those principles. With this in mind the School fosters a close partnership with industry and government, and also reaches out to both the campus community and the community at large with its services.

A. James Clark School of Engineering 73

Direct Admissions Requirements

1. Admission to the Clark School of Engineering is limited. Applicants are reviewed and will be admitted directly on a competitive basis. Evaluation is based on high school grades, standardized test scores, activities, leadership and demonstrations of potential to succeed. An applicant may select any of the majors offered within the School except Computer Engineering in which a limited number of students are admitted for each academic year. Students interested in Computer Engineering are encouraged to indicate this as soon as possible.
2. National Merit and National Achievement Finalists and Semifinalists, Maryland Distinguished Scholar Finalists, and Banneker/Key Scholars are admitted directly to the School.

45-Credit Review

Directly admitted freshmen will be subject to an academic review at the end of the semester in which they attain 45 University of Maryland credits. In order to successfully complete the review, students must have an overall GPA of 2.0 and have completed ENES 100 and the following sequence of Gateway requirements: MATH 141, PHYS 161, and CHEM 113 or CHEM 135 with a grade of C or better.

Only one repeat of a single course to the set of Gateway courses, either at the University of Maryland or at any other university or college, will be considered to meet the review requirements. A course in which a grade of "W" (withdrawn) is earned is counted as an attempt. Students who fail to meet these requirements by the semester in which they attain 45 University of Maryland credits will be dismissed from the Clark School and may not reapply.

Transfer Admission

Direct Admissions Requirements

Internal and External Transfer students will be directly admitted to the Clark School if they meet the Gateway requirements, MATH 141, PHYS 161, and CHEM 113 or CHEM 135 with a grade of C or better, have completed Fundamental Studies English, and have a minimum cumulative GPA of 3.0, and who have not previously been admitted to the Clark School of Engineering. Only one repeat of a single course to the set of Gateway courses, either at the University of Maryland or at any other university or college, will be considered to meet the review requirements. A course in which a grade of "W" (withdrawn) is earned is counted as an attempt. Students may apply on or before the semester in which they attain 45 earned credits.

Internal and External Transfer students who do not meet the Direct Admissions Requirements but have completed the Gateway requirements and have earned 56 or fewer credits may apply and be considered for admission on a competitive basis.

Appeal Process

All students may appeal. Students directly admitted as freshmen who are dismissed because of failure to meet Gateways or to be in good academic standing at 45 credits may appeal directly to the Associate Dean of Undergraduate Studies in the Clark School. All other students who are denied admission may appeal to the Office of Admissions of the University.

Special Note

1. Students with a previous B.A. or B.S. degree will be admitted to the Clark School of Engineering with a minimum GPA of 3.0 and a completion of MATH 140, MATH 141, CHEM 113 or CHEM 135, and PHYS 161 with a grade of C or higher in each.

Graduation Requirements

Structure of Engineering Curricula: Courses in the normal curriculum or program and prescribed credit hours leading to the degree of Bachelor of Science (with curriculum designation) are outlined in the sections describing each department in the Clark School of Engineering. No student may modify the prescribed number of hours without special permission from the Dean of the School. The courses in each curriculum may be classified in the following categories:

1. Courses in the CORE Liberal Arts and Science Studies Program.
2. Courses in the physical sciences, mathematics, chemistry, physics.

3. Related technical courses, engineering sciences and other courses approved for one curriculum but offered by another department.
4. Courses in the major department. A student should obtain written approval for any substitution of courses from the department chair and the Dean of the School. The courses in each engineering curriculum, as classified below, form a sequential and developmental pattern in subject matter. In this respect, curricula in engineering may differ from curricula in other colleges. Some regulations which are generally applicable to all students may need clarification for purposes of orderly administration among engineering students (see the Academic Regulations in chapter 4). Moreover, the Clark School of Engineering establishes policies which supplement university regulations.

School Regulations

1. The responsibility for proper registration and for satisfying stated prerequisites for any course must rest with the student as does the responsibility for proper achievement in courses in which the student is enrolled. Each student should be familiar with the provisions of this catalog, including the Academic Regulations.
2. Required courses in mathematics, physics, and chemistry have highest priority; and it is strongly recommended that every engineering student register for mathematics and chemistry or mathematics and physics each semester until the student has fully satisfied requirements of the Clark School of Engineering in these subjects.
3. To be eligible for a bachelor's degree in the Clark School of Engineering, a student must have an overall average of at least a C (2.0) and a grade of C or better in all engineering courses (courses with an EN prefix). Responsibility for knowing and meeting all graduation requirements in any curriculum rests with the student.
4. All students are required to complete a number of general education courses and must follow the university's requirements regarding completion of the general education (CORE) Program. Consult the Academic Regulations section of this catalog for additional information. Engineering students who began college-level work (either at the University of Maryland or at other institutions) during the Fall 1989 semester or later are required to complete a junior-level technical writing course regardless of their performance in freshman English classes. This represents a School policy, not a University-wide policy. Students must also plan their general education (CORE) courses to reflect depth as well as breadth. They should plan to take at least two courses (a lower level and at least one upper level course) which follow a theme area. These courses can be from the same department in the humanities and social sciences, or can be different departments as long as course content is related. Advisors are available to answer any questions on the theme requirements.
5. All degree programs in the Clark School of Engineering require a minimum of 120 credits plus satisfaction of all department, School, and University general education (CORE) program requirements. Students should be aware that for all currently existing engineering programs the total number of credits necessary for the degree will exceed 120 by some number that will depend on the specific major and the student's background.

Curricula for the various engineering departments are given in this catalog to illustrate how the programs can be completed in four years. These curricula are rigorous and relatively difficult for the average student. Surveys have shown that only about one-third to one-half of the students actually receive an engineering degree in four years. The majority of students (whether at Maryland or at other engineering schools nationwide) complete the engineering program in four and one-half to five years. It is quite feasible for a student to stretch out any curriculum; this may be necessary or desirable for a variety of reasons. However, students should seek competent advising in order to ensure that courses are taken in the proper sequence.

All students are urged to speak to an advisor in the Clark School of Engineering Student Affairs Office at least two semesters before graduation to review their academic progress and discuss final graduation requirements.

Advising

Advising is available by appointment Monday through Friday, from 8:30 a.m. to 5:00 p.m. Appointments for other hours may be made through special request. The Clark School of Engineering Student Affairs Office, is located in Room 1124 Glenn L. Martin Hall (formerly Engineering Classroom Building), (301) 405-3855. In addition, advising is available with the individual departments. See advising section in the specific engineering department entry for times and location.

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Departments and Degrees

The Clark School of Engineering offers the degree of Bachelor of Science in the following fields of study: Aerospace Engineering, Biological Resources Engineering (see also College of Agriculture and Natural Resources), Chemical Engineering, Civil Engineering, Computer Engineering, Electrical Engineering, Fire Protection Engineering, Materials Science and Engineering, Mechanical Engineering, B.S. Engineering (Engineering Option and Applied Science Option). Except for Computer Engineering and the Applied Science Option of the B.S. Engineering degree, all of the above programs are accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology.

The Freshman-Sophomore Years

The freshman and sophomore years in engineering are designed to lay a strong foundation in mathematics, physical sciences, and the engineering sciences upon which the student will later develop a professional program during the upper division (junior and senior) years. During the first two years, students are introduced to the concepts of engineering design and work in multidisciplinary teams. The School course requirements for the freshman and sophomore years are mostly the same for all students, regardless of their intended academic program, thus affording the student maximum flexibility in choosing a specific engineering specialization.

Engineering Sciences

Engineering Science courses represent a common core of basic material offered to students of several different departments. All freshman and sophomore students of engineering are required to take ENES 100. Other ENES courses, 102, 220, 221, and 230, are specified by the different departments or taken by the student as electives. The responsibility for teaching the engineering science courses is divided among the engineering departments. In addition to the core courses noted above, several courses of general interest to engineering or non-engineering students have been given ENES designations. See the List of Approved Courses in chapter 8 for further descriptions of these courses.

Freshman Curriculum

See individual department requirements in chapter 7. Entering freshman math placements are determined by performance on math placement exams. Placement in MATH 115 or lower will delay by a semester eligibility to take certain engineering courses.

Sophomore Year

During the sophomore year the student selects an academic department (Aerospace, Biological Resources, Chemical, Civil, Computer, Electrical, Fire Protection, Mechanical, or Materials and Nuclear Engineering) and this department assumes the responsibility for the student's academic guidance, counseling, and program planning from that point until the completion of the degree requirements of that department as well as the School. For the specific requirements, see the curriculum listing in each engineering department.

Dual Degree Program

The Dual Degree Program is a cooperative arrangement between the Clark School of Engineering and selected liberal arts colleges which allows students to earn undergraduate degrees from both institutions in a five-year program. A student in the Dual Degree Program will attend the liberal arts college for approximately three academic years (minimum 90 semester hours) and the Clark School of Engineering at the University of Maryland for approximately two academic years (minimum hours required determined individually approximately 60 semester hours).

Dual degree candidates may participate in any of the baccalaureate programs in the Clark School of Engineering.

At the present time the participating institutions in Maryland and the District of Columbia are American University, Bowie State University, Columbia Union College, Coppin State College, Frostburg State University, Morgan State University, College of Notre Dame of Maryland, St. Mary's College of Maryland, Salisbury State University, Towson State University, Western Maryland College, Trinity College, and Washington College. Also participating in the program are Kentucky State University, King College in Tennessee, Shippensburg State University in Pennsylvania, and Xavier University in Louisiana.

Engineering Abroad

Preparation for practicing engineering in the global marketplace is increasingly important for new engineers and in order for engineers to advance in their engineering career. The Clark School of Engineering offers opportunities for students to study abroad and/or work abroad during their college career. Specific programs have been established in German and Japanese such as the:

- Dual Degree program in Engineering and German
- Japan Technological Affairs Program

Students may elect to participate in these established programs or participate in additional programs offered through the Clark School of Engineering such as:

- Global Engineering Education Exchange (Global E3) with opportunities in Austria, Denmark, France, Germany, Hungary, Japan, Mexico, Singapore, Spain, South Korea, Turkey, and the United Kingdom
- Engineering/French Studies Summer Program
- Denmark's International Study Program (DIS)
- International Association for the Exchange of Student for Technical Experience (IAESTE) which provides internship opportunities abroad
- Regional Academic Mobility Program with opportunities for study in Canada and Mexico

Students may elect to study abroad for one semester or two and to work abroad for eight weeks or more. At present, students can study or work abroad in many countries around the world such as Europe, Asia, Canada, and Mexico. Some study/work abroad programs require fluency in the native language, while other programs offer courses or work opportunities in English.

For further information on study and/or work abroad programs, students should contact the Clark School of Engineering Special Programs Office at (301) 405-3857 or visit our web site at www.engr.umd.edu/organizations/intl/.

Citations

Citation in International Engineering 14 to 17 credit hours. Students complete the course "International Business Cultures for Engineering and Technology" plus additional courses in language, culture studies, or internationally related studies, and an international engineering experience abroad. Contact the Director of Special Programs (301) 405-3857 for more information. Students who fulfill Citation requirements will receive a Citation on the official transcript. Students complete the course "International Business Cultures for Engineering and Technology" plus additional courses in language, culture studies, or internationally related studies, and an international engineering experience abroad. Contact the Director of Special Programs (301) 405-3857 for more information. Students who fulfill Citation requirements will receive a Citation on the official transcript.

Engineering Transfer Programs

Most of the community colleges in Maryland provide one- or two-year programs which have been coordinated to prepare students to enter the sophomore or junior year in engineering at the University of Maryland. These curricula are identified as Engineering Transfer Programs in the catalogs of the sponsoring institutions. The various associate degree programs in technology do not provide the preparation and transferability into the degree curricula as the designated transfer programs. A maximum of one-half of the degree credits (approximately 60 semester hours) may be transferred from a two-year community college program.

There may be some courses which are not offered by the schools participating in the engineering transfer program. Students should investigate the feasibility of completing these courses in summer school at the University of Maryland before starting their junior course work in the fall semester.

Financial Assistance

The Clark School of Engineering awards some merit-based scholarships. These awards are designated primarily for juniors and seniors in the School. Students must submit an application and all supporting documents by March 15 in order to be considered for scholarship assistance for the following academic year. For additional information, contact the Clark School of Engineering Student Affairs Office, 1124 Glenn L. Martin Hall (formerly Engineering Classroom Building), (301) 405-3855.

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Honors

The Clark School of Engineering offers an Engineering Honors Program that provides eligible students the opportunity to pursue an enriched program of studies which will broaden their perspectives and increase the depth of their knowledge. This program is available to students who meet the following criteria:

1. 3.5 overall GPA.
2. 3.5 engineering GPA.
3. Junior standing or 65 applicable credits.

In completing the program, all engineering Honors students must:

1. Submit an Honors research project necessitating a paper and oral presentation worth three hours of credit.
2. Successfully complete two semesters of the Engineering Honors Seminar (ENES 388, 1 credit each).
3. Maintain a 3.3 GPA.

For additional information, contact the Clark School of Engineering Student Affairs Office, 1124 Glenn L. Martin Hall (formerly Engineering Classroom Building), (301) 405-3855.

Research and Service Units

The Center for Minorities in Science and Engineering

1134 Glenn L. Martin Hall, (301) 405-3878
Director: Rosemary L. Parker

The Center is dedicated to increasing the enrollment and graduation rates of African-American, Hispanic, and Native American students majoring in engineering. The Center provides a complete package of services designed to assist students from pre-college through completion of the undergraduate degree. Services include academic advising, tutorial assistance, scholarship information, the BRIDGE Program, outreach programs, job information and support of student organizations.

Engineering Co-op and Career Services

1137 Glenn L. Martin Hall, (301) 405-3863
Director: Heidi W. Sauber

Whether it's to wire robots in a car plant, monitor a waste water management project, or reformulate cough syrup for a pharmaceutical company, the Engineering Co-op and Career Services Office assists students in finding cooperative education, internship, summer, and part-time engineering positions. Visit our Web site: <http://www.coop.engr.umd.edu>.

Through cooperative education, students alternate semesters of full-time work and full-time study for a total of 50 weeks of work. Co-op students earn a Bachelor of Science degree with co-op distinction and complete the same academic requirements as all other students. Through the summer employment and part-time internship programs, students work full-time during the summer or part-time during the school year. Both programs provide students the opportunity to gain professional-level experience, integrate theory and practice, confirm career choices, and help finance their education. At the same time, employers gain access to an energetic new work force, reduce recruitment costs, train future employees, and increase their presence on campus.

Students are eligible to participate in all programs at any time; however, most employers prefer to hire students with sophomore standing or above. To apply, students attend an orientation session and complete a TERP disk that includes a resume and other important information. The disk also allows students access to TERP Online, our 24-hour, on-line job postings. Workshops on resume writing, interviewing skills, and TERP Online are offered weekly, and a monthly newsletter highlights student work experiences and office programs. In addition, students and employers have the opportunity to participate in two campus-wide career fairs each year and on-campus job interviews throughout each semester.

Engineering Student Affairs

1124 Glenn L. Martin Hall, (301) 405-3855
Director: Erin Rooney-Eckel
engrhel@deans.umd.edu

The Student Affairs Office provides a broad variety of services to assist students during their collegiate careers. Individual advising may focus on a number of student related issues including: course selections, schedule planning, university policy interpretations, career choices, social and personal adjustments and academic concerns. The office also meets with prospective students, clears students for graduation, evaluates transfer credits from other institutions, provides orientation to new students, and is instrumental in helping students process administrative forms. The staff works closely with other campus offices to identify resources that address the various needs of our students.

Women in Engineering Program

1134 Glenn L. Martin Hall, (301) 405-3931
Director: Paige E. Smith

The Women in Engineering Program (WIE Program) is dedicated to increasing the enrollment, retention, and graduation rates of females in the School, as well as identifying and addressing this group's unique needs. The Program provides a comprehensive set of initiatives designed to encourage and assist women students to become successful professional engineers.

Services offered include research fellowships, professional mentoring program, workshops on classroom climate issues and careers, outreach programs, speakers, conference funding, collaboration with community colleges, newsletter and support of women in engineering organizations.

Undergraduate Research Programs

Undergraduate research programs allow qualified undergraduate students to work with research laboratory directors in departments, thus giving students a chance for a unique experience in research and engineering design. Projects in engineering allow undergraduate students to do independent study under the guidance of faculty members in an area of mutual interest. For more information contact your department or the Dean's office.

Undergraduate Research Participation Award

The Institute for Systems Research (ISR) has available Undergraduate Research Participation Awards for full-time engineering students who have a minimum grade point average of 3.0. The total award stipend is \$4,000 for a one-year period. Interdisciplinary research is conducted in: chemical process control; systems integration; manufacturing systems; communication systems; signal processing; and intelligent servomechanisms. Applications and supporting documents must reach the ISR by April 1 for the following summer/fall semesters and by November 1 for the following spring semester.

Instructional Technologies

0123 Glenn L. Martin Hall, (301) 405-0174
Director: James F. Zahniser (301) 405-3885
<http://www.it.umd.edu>

Keeping pace with the latest developments in the area of Instructional Technologies worldwide, the Clark School of Engineering provides a state-of-the-art computing environment that will be the standard for engineers in the years ahead. Faculty and students have open access to workstation laboratories; multi-media computer classrooms; and a laboratory of multi-media and presentation graphics. In addition, Internet based World Wide Web framework serves as a delivery tool for video-teleconferencing, collaborating teaching and learning, and both real-time and asynchronous multimedia delivery of course material, all adaptable to the newly emerging distance learning technologies.

Instructional Television System

2104 Engineering Classroom Building, (301) 405-4910
Director: Arnold E. Seigel

The University of Maryland's Instructional Television System (ITV) is headquartered in the Clark School of Engineering. Each semester, more than 60 regularly scheduled graduate and undergraduate classes are held in ITV's studio classrooms and broadcast "live" to government agencies and businesses in the greater Washington and Baltimore area. Students in the remote classrooms watch the broadcasts on large TV monitors. They are able to talk to the instructors and other students using a phone-line "talk back" system. In addition to academic courses, professional development courses on extremely current topics are offered via satellite to engineers and managers throughout the United States. Through the ITV system, working adult students are able to progress toward graduate degrees, primarily in engineering and computer science, without leaving their places of work.

Student Organizations

Professional Societies

Each of the engineering departments sponsors a student chapter or student section of a national engineering society. The student chapters sponsor a variety of activities including technical meetings, social gatherings, and School or University service projects. All students are strongly encouraged to join one or more of these chapters. These

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organizations are American Helicopter Society, American Institute of Aeronautics and Astronautics, American Institute of Chemical Engineers, American Nuclear Society, American Society of Agricultural Engineers, American Society of Civil Engineers, American Society of Mechanical Engineers, Black Engineers Society, Institute of Electrical and Electronics Engineers, Minerals, Metals and Materials Society, Society of Asian Engineers, Society of Automotive Engineers, Society of Fire Protection Engineers, Society of Hispanic Engineers, and Society of Women Engineers.

Honor Societies

The Clark School of Engineering and each of the engineering departments sponsor honors societies. Nominations or invitations for membership are usually extended to junior and senior students based on scholarship, service and/or other selective criteria. Some of the honors organizations are branches of national societies; others are local groups: Tau Beta Pi (College Honorary); Alpha Epsilon (Agricultural Engineering); Alpha Nu Sigma (Nuclear Engineering); Chi Epsilon (Civil Engineering); Eta Kappa Nu (Electrical Engineering); Omega Chi Epsilon (Chemical Engineering); Pi Tau Sigma (Mechanical Engineering); Salamander (Fire Protection Engineering); and Sigma Gamma Tau (Aerospace Engineering).

COLLEGE OF HEALTH AND HUMAN PERFORMANCE (HLHP)

3310 HLHP Building, (301) 405-2438; Records, (301) 405-2357
<http://www.inform.umd.edu/hlhp>

Dean: Robert S. Gold
 Acting Assistant Dean/Student Affairs: Viki Annand
 Acting Assistant Dean/Instruction: Robin Sawyer

The College of Health and Human Performance provides preparation leading to the Bachelor of Science degree in the following professional areas: Physical Education (K-12), Community Health and Family Studies. The College also offers curricula in Kinesiological Sciences. In addition, each department offers a wide variety of courses for all university students. These courses may be used to fulfill the general education requirements and as electives.

Programs combining research, service and instruction are provided by the Children's Health and Developmental Clinic, the Adults' Health and Developmental Program, and the Sports Medicine and Physical Fitness Center. More detailed information regarding these program offerings is available through the individual departments.

Advising

At the time of matriculation and first registration, each student is assigned to a member of the College faculty who acts as the student's academic adviser. These assignments are made by the individual departments and depend upon the student's chosen major. Students who are enrolled in the College, but are undecided regarding their major, should contact the Assistant Dean, 2302 HLHP Building, (301) 405-2357.

Departments and Degrees

The College of Health and Human Performance offers the baccalaureate in the following fields of study: Physical Education, Kinesiological Sciences, Community Health and Family Studies. The degree of Bachelor of Science is conferred upon students who have met the conditions of their curricula as herein prescribed by the College of Health and Human Performance.

Each candidate for a degree must file a formal application with the Records Office according to the scheduled deadlines for the anticipated semester of graduation.

Honors

Phi Alpha Epsilon. Honorary Society of the College of Health and Human Performance. The purpose of this organization is to recognize academic achievement and to promote professional growth by sponsoring activities in the fields of physical education, kinesiology, family studies and health, and related areas.

Students shall qualify for membership at such times as they shall have attained junior standing in physical education, kinesiology, family studies, or community health, and have a minimum overall average of 3.5 and a minimum of 24 credits at the University of Maryland, College Park. Graduate students are invited to join after 20 hours of work with a 3.9 average. For additional information, please contact the Student Service Center, (301) 405-2357.

Special Resources and Opportunities

Gymkana Troupe

1120 HLHP Building, (301) 405-2566
 Director: Joe Murray
 Associate Director and Head Coach: Scott Welsh

For over 50 years, the University of Maryland Gymkana Troupe has been influencing young people to live healthy lifestyles. Founded at the University of Maryland College Park campus in 1946, the troupe has traveled throughout Maryland and neighboring states promoting drug-free living. Each of its 50+ members pledges themselves to be drug-free. Through their role-modeling and unique gymnastic performances, they have influenced hundreds of thousands of people to join them in living a drug-free life. The troupe, which is open to all University of Maryland students of all abilities, is considered a one-of-a-kind organization and is believed to be the only collegiate exhibitional gymnastic troupe actively touring the United States. One uniqueness of the Gymkana program is in its use of peer role models who share their experiences and their message of healthy living with others. Students influencing students to avoid drugs is the heart of Gymkana's program. For additional information, please contact Scott Welsh, (301) 405-2566.

Research and Service Units

Center on Aging

2367 HLHP Building, (301) 405-2469
 Director and Professor: Dr. Laura B. Wilson
 Associate Professor: Dr. Mark R. Meiners

The Center on Aging stimulates and supports aging-related activities within existing departments, colleges, and schools throughout all of the various institutions of the University System of Maryland. The Center coordinates the Graduate Gerontology Certificate (master's and doctoral levels), the university's first approved graduate certificate program. The Center assists undergraduate and graduate students interested in the field of gerontology and helps them to devise educational programs to meet their goals. It is a research center working in health and aging policy, lifelong learning and engagement, health care economics, behavioral and social aspects of aging, and health service delivery systems. It also conducts community education programs, assists faculty in pursuing research activities in the field of aging, conducts conferences on adulthood and aging-related topics, provides on- and off-campus technical assistance to practitioners who serve older adults and sponsors the University of Maryland Senior University, the Adult Health and Development Program, the Senior Leadership Maryland Program, and the University of Maryland Retirees Association.

For further information on any of the Center's activities call, write or visit the Center on Aging.

Course Code: HLHP

THE PHILIP MERRILL COLLEGE OF JOURNALISM (JOUR)

1117 Journalism Building, (301) 405-2399
<http://journalism.umd.edu>

Professor and Dean: Kunkel
 Associate Deans: Callahan, Stewart
 Olive Reid, Assistant Dean and Director of Undergraduate Programs
 Frank Quine, Assistant Dean for External Affairs
 Professors: Beasley, Blumler (Emeritus), Broder, Cleghorn, Franklin (Merrill Chair in Journalism), Gomery, Gurevitch, Hiebert (Emeritus), Holman, Johnson (Knight Chair in Journalism), Martin (Emeritus), Roberts, Stepp, Thornton (Richard Eaton Chair in Broadcast Journalism)
 Associate Professors: Barkin, Geraci (Emeritus), McAdams, Newhagen, Paterson, Zanot
 Assistant Professors: Bonner, Hanson, Moeller
 Lecturers: Burns, Crane, Flynn, Harvey, Katcef, Kopen, Lodato, Huffman, Rogers, Penny Bender Fuchs, Executive Director, American Association of

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Sunday and Feature Editors
 Patricia Richardson, Director of Development
 Linda Ringer, Director of Business Administration
 William J. Eaton, Curator, Humphrey Journalism Fellows
 Beth Frerking, Director of Casey Journalism Center for Children and Families
 Carol Guensburg, Director, National Fellowship Program for Child/Family Policy Journalists
 Janée McFadden, Program Coordinator and Academic Advisor
 Marchelle Payne, Director of the American Society of Newspaper Editors (ASNE) Summer Institute
 Rem Rieder, Editor, American Journalism Review
 Carol Homer, Director of the Knight Center for Specialized Journalism

The Philip Merrill College of Journalism is widely considered one of the best journalism programs in the nation, blending a mix of prize-winning journalists, communication scholars and nationally recognized professional programs. The school's mission is simple: to produce the best possible journalists for leading newspapers, magazines, TV, radio and online news outlets. Recent graduates are editors, reporters and producers at The New York Times, Washington Post, CBS, Los Angeles Times, CNN, America Online and many of the nation's other top news organizations.

Students learn from a faculty that includes Pulitzer Prize winners David S. Broder, Haynes Johnson and Jon Franklin, former CBS White House correspondent Lee Thornton and former Philadelphia Inquirer Executive Editor Gene Roberts. The faculty also include such internationally recognized media and communications scholars as Michael Gurevitch, Maurine Beasley and Douglas Gomery.

Located less than 10 miles from the news capital of Washington, students participate in internships during the academic year at The Washington Post, The (Baltimore) Sun, CNN, and a wide array of Washington news bureaus. In the summer, students intern at top news organizations around the country. Broadcast news students produce and anchor a 30-minute nightly news show that reaches more than 400,000 households in suburban Washington on the College-operated UMTV station, and online students work on Maryland Newline, a political and public policy Web-based news magazine. Advanced broadcast, online, and print students enroll in Capital News Service, an intensive full-time reporting program in Washington and Annapolis. Students also participate in some of the school's many professional programs, including the monthly magazine American Journalism Review and the Casey Journalism Center for Children and Families.

Admission to the Philip Merrill College of Journalism

Freshman Admission and the 45-Credit Review: Most first-time entering freshmen will gain admission to the Philip Merrill College of Journalism directly from high school, as allowed by space considerations within the College. Early application is encouraged. Freshmen admitted to the program will have access to the necessary advising through their initial semesters to help them determine if Journalism is an appropriate area for their interests and abilities. Academic and career advising is provided to journalism students throughout their academic career by qualified academic counselors and the College's faculty.

Freshmen who are admitted directly to Journalism will be subject to a performance review by the time they have completed 45 credits. To meet the provisions of the review, these students must complete: (1) The two, first-year Fundamental Studies courses, including ENGL 101 and mathematics; (2) at least nine credits of Distributive Studies coursework, selected in consultation with your advisor; (3) ENGL 101 and JOUR 201 with grades of C or higher; and (4) a minimum cumulative GPA of 2.0. Enrollment in JOUR 201 requires proof of grammar skills competency through attainment of a minimum score of 52 on the Test of Standard Written English (TSWE). Students who do not meet these requirements will not be allowed to continue in the LEP and will be required to select another major.

Transfer Admission. These requirements affect new transfer students to the University as well as on-campus students.

Note: No more than 12 transfer credits of communications courses from an accredited journalism program may be approved by the College to be applied toward the degree. Transfer students who wish to receive credit for JOUR 201 based on work done in a non-accredited journalism program must pass a proficiency exam.

In order to be admitted to Journalism, transfer students will be required to meet the following set of gateway requirements: (1) The two, first-year Fundamental Studies courses, including ENGL 101 and mathematics; (2) at least nine credits of Distributive Studies coursework, selected in consultation with your advisor; (3) completion of ENGL 101 and JOUR 201 with grades of C or higher; and (4) attainment of a 2.8 GPA for all college-level work attempted. Enrollment in JOUR 201 requires proof of grammar skills competency through attainment of a minimum score of 52 on the Test of Standard Written English (TSWE). Contact the Philip Merrill College of Journalism or the Office of Undergraduate Admissions for the minimum GPA standard.

Appeals. Students who are unsuccessful in gaining admission to Journalism at the freshman or transfer level, and believe they have extenuating or special circumstances which should be considered, may appeal in writing to the Office of Undergraduate Admissions. The student will be notified in writing of the appeal decision.

Students admitted to Journalism as freshmen that do not pass the 45-credit review but believe they have special circumstances, which should be considered, may appeal directly to the College.

For further information, contact The College's Student Services office at (301) 405-2399.

Degrees

The Philip Merrill College of Journalism offers the B.A., M.A., M.J. and Ph.D. degrees.

Graduation Requirements:

Graduation requirements apply to all Journalism majors, including double-major and double-degree students.

Students are required to earn a minimum of 122 credits. Accrediting regulations require 80 credits of a student's course work be in areas other than mass communication (i.e. no COMM or JOUR courses.) A minimum of 65 of those 80 credits must be earned in liberal arts designated courses. A grade of C or better must be earned in JOUR 201 and JOUR 202 prior to taking courses for which they serve as prerequisites. Students must have a C average in their major.

Students are also required to demonstrate abstract thinking skills. As a measure, majors are offered a language option, a mathematics option, or a combination of the two.

A supporting area consisting of four upper-level courses in a concentrated field is also required of Journalism majors. Students must also complete a minimum of 58 credits at the upper level of which no more than 28 can be journalism or mass communications credits. Finally, in addition to University graduation requirements, Journalism majors must complete additional liberal arts course work with one course each in economics, government and politics, American history, public speaking, and one course in anthropology, psychology or sociology.

Required courses for all Journalism majors, regardless of whether journalism is a student's primary or secondary major:

- A. Non-journalism course requirements.
1. Abstract thinking skills requirement: Completion of a minimum of nine credits.
 - a: Three credits must be one statistics course from the following list: AREC 484, BIOM 301, BMGT 230, CCJS 200, ECON 321, EDMS 451, GEOG 305, GVPT 422, PSYC 200, SOCY 201, or a more advanced statistics course.
 - b: A minimum of six credits through one or a combination of the following options. Should a student choose to combine the options, at least one language course must be at the intermediate level:
 - i. Language-any language skills course(s). Up to two courses with at least one course at the intermediate level and no more than one course at the introductory level. (High school equivalency does not satisfy this requirement.)
 - ii. Math and Computer Science - up to two courses:
 - a. Any mathematics (MATH) course numbered 111 or higher.
 - b. Any computer science (CMSC) course.
 2. Public Speaking: one course from COMM 100, 107, 200, 230 or 250.
 3. History: one course from HIST 156, 157.

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4. Behavioral or Social Science: ANTH 260; PSYC 100 or 221; SOCY 100, or 105.
5. Economics: ECON 200 or 201.
6. Government and Politics: GVPT 100 or 170
7. Supporting Area: Four upper-level (numbered 300 or higher) courses for a minimum of 12 credits in a supporting field (cannot be in Communication).

B. Journalism course requirements:

	Credit
JOUR 100-Professional Orientation.....	1
JOUR 200-History, Roles and Structures	2
JOUR 201-News Writing and Reporting	3
JOUR 202- News Editing	3
JOUR 203-New Media	1
JOUR 300-Ethics	3
One of News Writing and Reporting II	3
JOUR 320-Print	
JOUR 360-Broadcast	
Advanced Skills:.....	9
Any nine-credit JOUR hours numbered 321-389	
JOUR 350-Graphics	3
JOUR 396-Supervised Internship.....	1
JOUR 400-Law of Mass Communication	3
Journalism and Society:	3
Any three-credit JOUR hours numbered 410-469	
Research:	3
Any three-credit JOUR hours numbered 470-479	
.....	38

Advising

The Office of Student Services, 1117 Journalism Building, (301) 405-2399, provides academic advising to majors on an appointment basis. Send e-mail inquiries to jourug@deans.umd.edu.

Honors and Awards

Although no departmental honors program currently exists within the College, academically outstanding students are recognized through Kappa Tau Alpha, the Journalism academic honor society.

Hodding Carter III Community Service Award. Awarded at each May commencement to the journalism student exhibiting outstanding service to his or her peers, campus, and extended communities.

Sigma Delta Chi/Society of Professional Journalists Citation. Awarded annually to an outstanding journalism student.

Kappa Tau Alpha Citation. Awarded at each commencement to the journalism student earning the highest academic achievement for all undergraduate study.

Field Work and Internship Opportunities

Supervised internships are essential. Dr. Greig Stewart is the Director of the Journalism Internship Program, 1117 Journalism Building, (301) 405-2399.

The Annapolis and Washington bureaus of the Capital News Service are staffed by students and supervised by college instructors. Through curricular programs, students cover state and legislative news for client papers around the region. Broadcast students have the opportunity to participate in Capital News Service in the Annapolis Bureau, developing stories and packages for UMTV. Students are required to report breaking news under deadline, write profiles, and cover state agencies. This is a full-time, semester-long program, on site at the two bureau locations. Students interested in web journalism can report, write and edit for Maryland *Newsline*, an online magazine. This bureau is located in the College's state of the art online facility. Capital News Service is coordinated by Associate Dean Chris Callahan, 2102 Journalism Building, (301) 405-2399.

For students interested in broadcast news, opportunities to gain experience with cable news programs are presented within the curriculum and by volunteering at the campus television station, UMTV. The campus radio station is WMUC. The Diamondback, the third most-read college paper in the nation, is the campus daily newspaper. Student newspapers of interest to special populations include the *Eclipse*, *Black Explosion*, and *Mitzpeh*.

Student Organizations

The college sponsors student chapters of the Society for Professional Journalists, the National Association of Black Journalists, and the Radio and Television News Directors' Association. These organizations provide students with opportunities to practice skills, establish social relationships with other students both on and off campus, and meet and work with professionals in the field.

For information on the organizations listed, contact the Student Services Office, 1117 Journalism Building, (301) 405-2399.

Accreditation

The Philip Merrill College of Journalism became accredited in 1960 by the Accrediting Council on Education in Journalism and Mass Communications. Standards set by the council are generated from professional and academic ethics and principles. This accrediting body ensures the liberal arts foundation of a journalism curriculum, limiting professional and skills courses to one-fourth of a student's academic program.

Course Code: JOUR

Note: For coursework in Intercultural Communication, Mediated Communication, Negotiation and Conflict Management, Persuasion and Attitude Change, Political Communication, Public Relations and Rhetoric and Public Discourse see the Department of Communication in Chapter 7.

COLLEGE OF INFORMATION STUDIES

4105 Hornbake Building, (301) 405-2033
 E-mail: lbscgrad@deans.umd.edu
<http://www.clis.umd.edu>

Professor and Interim Dean: Bruce W. Dearstyne

The College of Information Studies offers degree programs for individuals interested in careers in information services and management. At the master's level, students may specialize in several fields, including archival studies, geographic information systems, health information services, school library media services, and science and technology information systems. Graduates pursue careers in a wide range of information agencies and positions. The College has dual degree programs with the History Department, and Geography Department. The Master's degree is accredited by the American Library Association.

The Ph.D. degree prepares students for careers in research and teaching in the information field and in management of large information organizations.

While the College does not currently have an undergraduate major, it offers courses at the undergraduate level. These courses are suggested for students wishing to develop skills in locating, analyzing, and evaluating information and students seeking to learn more about career opportunities in the information field.

COLLEGE OF LIFE SCIENCES (LFSC)

1302 Symons Hall, (301) 405-2080
<http://www.life.umd.edu/>

Professor and Dean: Norma M. Allewell
 Associate Dean: Robert Infantino, Jr.
 Assistant Dean: Amel Anderson, Lisa Bradley

The undergraduate academic programs in the College of Life Sciences encompass Chemistry, Biochemistry, the Biological Sciences and Environmental Science and Policy. Specializations within the Biological Science major enable students to focus on specific areas such as Behavior, Ecology, Evolution and Systematics; Cell, Molecular Biology and Genetics; Entomology; Marine Biology, Microbiology; Plant Biology; Physiology and Neurobiology; or Zoology. All programs aim to provide students a thorough understanding of contemporary biology, emphasizing recent advances in areas such as genomics, proteomics and bioinformatics, a solid background in the physical sciences, and the opportunity to engage in research. The College participates in the University's Honors and College Park Scholars Programs and provides students with a wide range of research and internship opportunities, within the University, at federal agencies such as the National Institutes of

Health, Beltsville Agricultural Research Center and National Institute of Standards and Technology and at nearby medical centers. The College also offers several Ph.D. programs; qualified undergraduates may take graduate courses with permission of the appropriate department.

While most students complete a four year B.S. degree on campus, under certain circumstances students may receive a B.S. degree with three years' study on campus followed by one successful year at a professional school. For additional information on combined degree programs, see the entry on pre-professional programs in chapter 7.

The College of Life Sciences includes the following departments and programs:

- a. Departments: Chemistry and Biochemistry, Entomology, Cell Biology and Molecular Genetics, Biology
- b. Programs: General Biological Sciences; Environmental Science and Policy, Chemistry and Biochemistry

Admission

Students applying for admission who plan to enter an undergraduate program in the College of Life Sciences should include the following subjects in their high school program: English, four units; college preparatory mathematics (algebra, plane geometry), four units; biological and physical sciences, two units; history and social sciences, one unit. They should also include chemistry and physics.

Advising

Entering students are advised by professional advisors in the College's Student Affairs Office. When a student has selected a major or specialization and successfully completed the entry level courses in Chemistry, Mathematics, Physics and the Biosciences, (s)he is assigned to a faculty advisor. All students must meet with an advisor at least once a semester.

Students following pre-professional programs will be advised by knowledgeable faculty. For further information on the pre-professional programs offered at College Park, see chapter 7.

Degree Requirements

Students graduating from the College must complete at least 120 credits with a grade point average of 2.0 in all courses applicable towards the degree. Included in the 120 credits must be the following:

1. CORE (40 credits)
2. College Requirements:
 - As of Fall 1988, all students in the College of Life Sciences must complete the following:
 - CHEM 103, 113, or 103H, 113H
 - CHEM 233, 243 or 233H, 243H
 - *MATH 220, 221 or 140, 141
 - PHYS 121, 122 or 141, 142
 - BSCI 105† and 106
 - EDCP 1080*
 - Chemistry and Biochemistry majors must take CHEM 143 and 153/227.
 - *Chemistry and Biochemistry majors must take MATH 140, 141.
 - †Chemistry and Biochemistry majors complete BSCI 105.
 - *As part of the retention effort on the campus, this course is required for all freshmen in Life Sciences.

Honors

Students may apply for admission to the honors programs in Chemistry and Biochemistry, General Biological Sciences, Cell Biology and Molecular Genetics, and Biology. On the basis of the student's performance during participation in the Honors Program, the department may recommend candidates for the appropriate degree with (departmental) honors, or for the appropriate degree with (departmental) high honors. Successful completion of the Honors Programs will be recognized by a citation in the Commencement Program and by an appropriate entry on the student's record and diploma.

Joint Biomedical Research Program with the University of Maryland School of Medicine

Students may apply for the joint Biomedical Science Research Program between the Department of Medical and Research Technology, University of Maryland School of Medicine, and the College of Life Sciences. Students who have successfully completed 60 credits of prerequisite courses at the University of Maryland, College Park may be considered for the program. Beginning in the junior year within the UM School of Medicine, students will develop skills in a variety of biotechnology methodologies as well as become familiar with the operation of analytical instruments used in clinical laboratories, biomedical science, and biosafety and quality assurance issues. Interested students should call Ms. Karen Adams at (410) 706-7664 or fax (410) 706-5229 for more information regarding this joint program.

For additional information on the College of Life Sciences please check our website: www.life.umd.edu.

SCHOOL OF PUBLIC AFFAIRS (PUAF)

2101 Van Munching Hall, (301) 405-6330
Professor and Dean: Susan C. Schwab

The School of Public Affairs provides graduate-level, professional education to men and women interested in careers in public service. Five disciplines are emphasized: finance, statistics, economics, politics, and ethics. There are several specializations offered as part of four Academic programs. These programs are international security and economic policy; management, finance and leadership; environmental policy; or social policy.

The School offers separate degrees for early-career and mid-career college graduates. Those with a minimum of five years' professional experience in the policy process may seek the 36-credit Master of Public Management (M.P.M.) degree. Others may enroll in the 48-credit Master of Public Policy (M.P.P.) program which can be completed in two years by full-time students. This program combines a rigorous applied course of study with practical, hands-on experience. Eligible University of Maryland College Park students can enroll in a five-year BA/MPP program. The School also offers joint degree programs with the College of Business and Management (M.P.P./M.B.A.) and the School of Law (M.P.P./J.D.), and accepts a small number of Ph.D. candidates each year.

Individuals who wish to improve their analytical and management skills without pursuing a degree may enroll in a 12 or 18-credit certificate program which mirrors one of the academic programs found in the master's degree programs.

For further information, please check our website: <http://www.puaf.umd.edu>.