

CATALOGUE 2000 • 2001

June, 2000

The college reserves the right to change unilaterally without notification any requirement, fee or program if it is deemed necessary.

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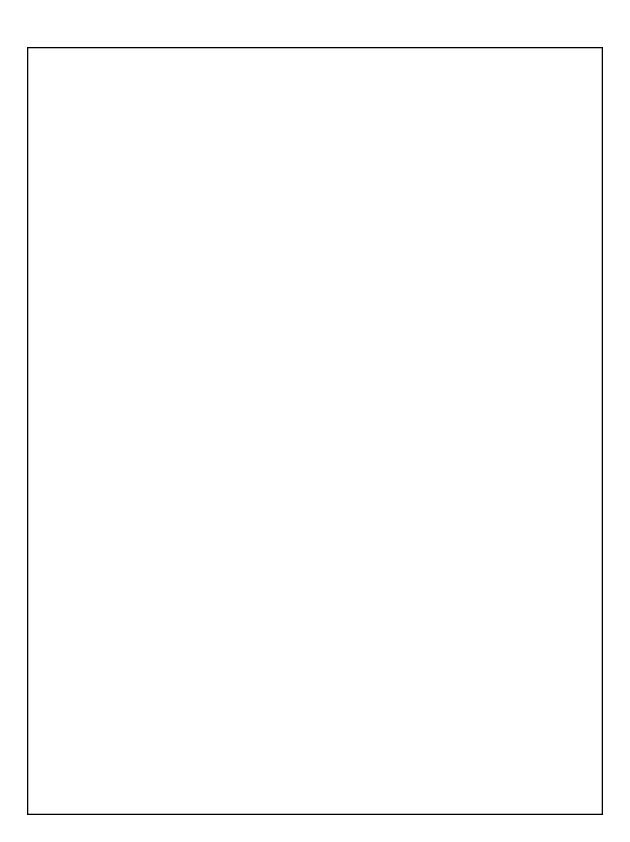
# 2000-2001 ACADEMIC CALENDAR

# **CREDIT PROGRAMS**

Summer Session II 2000 July 6	Classes Begin	
August 9	Classes End	
Fall 2000		
August 26	Regular Weekend Classes Begin	
August 28		
September 2-4	Labor Day - COLLEGE CLOSED	
November 22-26	Thanksgiving Recess for Students - NO CLASSES	
	Thanksgiving Recess for Faculty and Staff - COLLEGE CLOSED	
December 10	Classes End	
December 11-17	Exams	
December 22-January 1	Winter Break	
Intersession 2001		
January 2	Classes Regin	
January 15	Martin Luther King, Jr. Day Observed - COLLEGE CLOSED	
January 26	Classes End	
5aaa. y 25		
Spring 2001		
January 27		
January 29	Classes Begin	
April 9-15	Spring Recess - COLLEGE CLOSED	
May 11	Classes End	
May 12-17		
May 17		
May 28	Memorial Day Observed - COLLEGE CLOSED	
Summer Session I 2001		
May 29	Classes Begin	
July 2	Classes End	
-		
Summer Session II 2001	1	
July 4	Independence Day Observed - COLLEGE CLOSED	
July 5		
August 8	Classes Eng	

# **NON-CREDIT PROGRAMS**

REGISTRATION FOR NON-CREDIT COURSES IS ONGOING AS CLASSES BEGIN DAILY. Quarterly brochures listing classes are delivered to all homes in Howard County in March, May, August, and December.



	Page	
Academic Calendar	iii	
Directory for Assistance	ix	
General Information	1	
	1	College Profile
	1	Nondiscrimination, Equal Opportunity,
	'	
		and Affirmative Action
	1	Vision and Mission
	2	Accreditation and Membership
	2	Educational Foundation
	2	HCC Alumni and Friends Association
	2	Student Residency
	3	Student Injuries
	3	Student Health and Insurance
	4	
	5	Welcome and Information Center
		Library
	6	
	6	Computer Services
	7	Student Conduct
Admissions Policies and Procedures	9	
<b>Financial Aid Policies and Procedures</b>	13	
Academic Information	21	
	21	Associate in Arts Degree Requirements
	21	Associate in Applied Science Degree
	21	
	21	
		Placement Testing
		Distance Learning
		Credit for Prior Learning
		Honors and Academic Recognition
	26	Academic Procedures
	28	Registration and Enrollment
	29	· ·
	30	Grading System
	31	Academic Honesty
Student Services	33	reductific Fioriesty
Student Services		Admissions
	33	
	34	New Student Orientation
	34	J
	34	
	35	
	35	Academic Support and Career Services
	37	
	38	Student Life
	39	Athletics
Transfer Policies	41	

	_	
	Page	
Continuing Education & Workforce Development	49	
Statewide Instructional Programs	51	
Curriculum Profile	52	
Curricula	55	
	55	Program Selection
	55	General Education Requirements
	55	Courses Fulfilling Core Requirements
	58	Student Responsibilities
	58	Categories of Electives
	59	Course Codes
Curricula—Transfer Programs	61	
	62	Arts and Sciences
	62	Architecture
	63	Art
	65	Criminal Justice
	66	Environmental Science
	67	Health and Fitness Education
	69	Laboratory Science—Biotechnology
	70	Liberal Arts
	71	Life Sciences
	72	Music
	73	Nursing
	74	Nursing—LPN Pathway
	75	Physical Sciences
	76	Pre-Allied Health
	77	Pre-Dentistry
	78	Pre-Medicine
	79	Pre-Medical Technology
	80	Pre-Nuclear Medicine Technology
	81	Pre-Optometry
	82	Pre-Pharmacy
	83	Pre-Veterinary Medicine
	84	Psychology
	85	Social Sciences
	86	Social Sciences—American Studies
	87	Social Sciences—International Studies
	88	Theatre—Performance
	89	Theatre—Technical
	90	Business Administration
	90	Accounting, Business Administration,
		Fashion Merchandising
	91	Information Systems Management
	93	Computer Science
	94	Computer Science—Internet Technologies
	95	Engineering
	96	General Studies

	Page	
Curricula—Transfer Programs (continued)	97	Teacher Education—Early Childhood
	98	Teacher Education—Elementary
	99	Teacher Education—Secondary
	100	Teacher Education—Professional Education
0 1 1 0 0	400	Courses
Curricula—Career Programs	103	Accounting Drangestion for the CDA Everningtion
	104	Accounting—Preparation for the CPA Examination
	105 107	Biomedical Engineering Technology Business Management
	1107	Cardiovascular Technology
	115	Chemical Dependency Counseling
	116	Computer Aided Design Technology
	118	Computer Support Technology
	121	Early Childhood Development
	123	Electronics Technology
	125	Telecommunications Technology
	127	Emergency Medical Services
	130	Laboratory Science (Biotechnology)
	131	Network Administration
	132	Microsoft Certification
	133	Nursing
	134	Practical Nursing
	135	Office Technology
	139 140	Plant Science
Course Descriptions	140	Radiologic Technology Accounting (ACCT)
course Descriptions	142	Anthropology (ANTH)
		Art (ARTT)
	147	Astronomy (ASTR)
	147	Biology (BIOL)
	150	Biomedical Engineering Technology (BMET)
	150	
		Cardiovascular Technology (CARD)
		Chemistry (CHEM)
		Computer-Aided Design (CADD)
		Computer Systems (CMSY)
		Cooperative Education (COOP)
	163	Criminal Justice (CRIM) Dance (DANC)
		Economics (ECON)
		Education (EDUC)
		Electronics (ELEC)
	170	Emergency Medical Services (EMSP)
	172	Engineering (ENES)
	172	English (ENGL)
	177	<b>0</b> , <b>1</b> , ,

	Page	
<b>Course Descriptions (continued)</b>	177	Fine Arts (FINE)
,	178	
	179	French (FREN)
	179	
	180	Geology (GEOL)
	180	
	181	
	181	Health Education (HEED)
	184	History (HIST)
	187	
	189	Italian (ITAL)
	189	
	191	Management (MAMT)
	192	Mass Media (MASS)
	193	Mathematics (MATH)
	197	Meteorology (METO)
	197	Microsoft (MSFT)
	200	Music (MUSC)
	203	Nursing (NURS)
	205	Office Technology (OFFI)
	207	
	208	Physics (PHYS)
	209	` ,
	211	Political Science (POLI)
	211	
	212	<b>3</b> \
	212	` ,
	213	Sociology (SOCI)
	214	Spanish (SPAN)
	215	Speech (SPCH)
	215 216	Smalltalk (SMAL) Theatre (THET)
	210	Women's Studies (WMST)
College Staff	217	Women's studies (WWs1)
College Stall	219	Administrative Staff
	220	Professional/Technical Staff
	226	Faculty
	231	Adjunct Faculty
	232	Emeriti
<b>Curriculum Advisory Committees</b>	233	•
Index	237	
Mans	240	

# **DIRECTORY FOR ASSISTANCE**

Area Code: 410

Main Switchboard: 772-4800

www.howardcc.edu

Information may be obtained by writing or phoning the office listed. Correspondence should be directed to the person listed and addressed to:

Howard Community College 10901 Little Patuxent Parkway Columbia, MD 21044-3197

#### Admissions

Director of Admissions and Advising 772-4856 V/TDD

Director of Admissions and Advising 772-4856 V/TDD

#### **Alumni Affairs**

Director of Development and Alumni Relations 772-4450

#### Art Gallery

Division Chair, Humanities

772-4941

### **Assessment of Prior Learning**

772-4615

#### **Business Training Center**

Acting Executive Director of Workforce Development

#### Career Services, Job Placement, Cooperative Education

Coordinator of Career Services

772-4840

# Computer Lab

772-4987

#### **Continuing Education**

Acting Associate Dean of Continuing Education and Workforce Development 772-4823

#### Counseling/Crisis Intervention

Director of Academic Support and Career Services

#### **Educational Foundation**

Director of Development and Alumni Relations

#### **Equal Opportunities & Affirmative Action**

Director of Human Resources 772-4817

#### **Faculty Hiring**

Director of Human Resources

#### Industry Certification Programs (Microsoft, Novell, A+)

715-4431

#### Library

#### New Focus (Single Parents and Displaced Homemakers)

772-4954

#### Placement Testing

**Test Coordinator** 772-4856 V/TDD

#### **Public Relations and Marketing**

Director of Public Relations and Marketing

#### Scholarships and Student Financial Aid

Director of Financial Aid

772-4912

#### Services for Students with Disabilities

Director of Academic Support and Career Services 772-4822 V/TDD

#### Student Employment

Director of Financial Aid 772-4912

### **Student Support Services**

Assistant Director of Student Support Services 772-4822 V/TDD

### Telecourses/Distance Learning/Fast Track

Director of Lifelong Learning 772-4824

#### Theatre and Rep Stage

Box Office

772-4900

General Manager

772-4947

#### Transcripts

Director of Records and Registration 772-4764

#### Transfer Information and Advising

Transfer Coordinator

772-4856

#### Tuition and Fees/Student Billings/Refunds

Supervisor of Accounts Receivable 772-4850

#### Tutorina

Coordinator of Learning Assistance Center 772-4822 V/TDD

#### Use of College Facilities

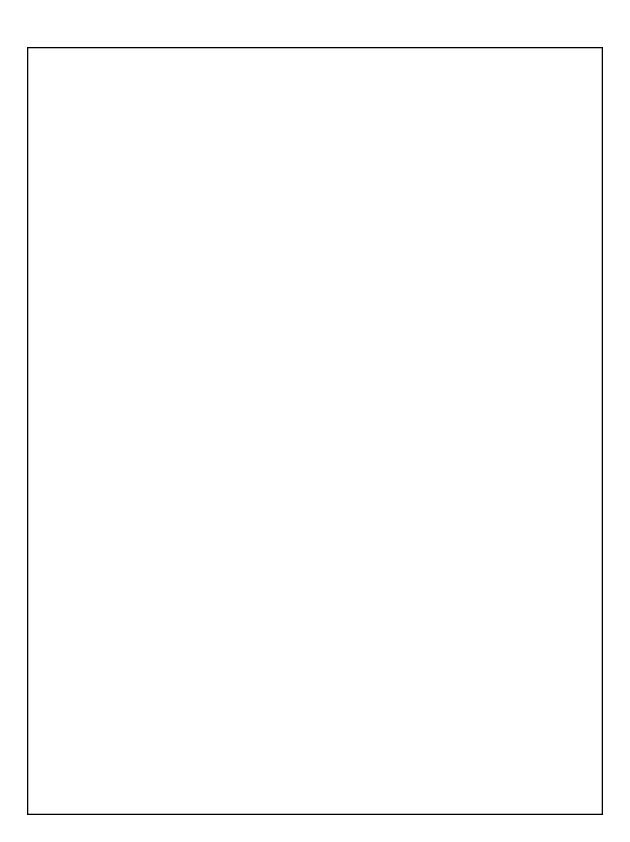
Senior Administration Office 772-4047

#### Veterans Inquiries

Director of Financial Aid 772-4856

#### **Emergency Closing of the College**

If, due to inclement weather or other emergencies that force the college or any off-campus facility to suspend classes or close, public service announcements will be provided to local radio and television stations as early as possible. Refer to the schedule of classes for listing of stations.



# General Information

### **COLLEGE PROFILE**

Situated on a 120-acre wooded campus, Howard Community College (HCC) offers a wide range of academic pursuits and extracurricular activities for students of all ages and walks of life.

About 5,000 students pursue studies at HCC in a variety of academic programs leading to transfer to four-year colleges or immediate employment upon graduation. An additional 12,000 students take courses for personal or professional development.

HCC is the leading choice for Howard County residents. About 44 percent of all undergraduates from Howard County are enrolled at HCC. HCC has a reputation as one of Maryland's most technologically advanced campuses for online classes taught via the Internet, Distance Learning Lab, and state-of-the-art multimedia computer labs for math, English, foreign language, and computer training.

Conveniently located in the heart of Howard County, the HCC campus features a Science and Technology Building, home to lasers, computers, satellite links, and other tools for high-tech learning. The Galleria, a spacious two-story windowed atrium adjacent to the building, provides a pleasing space for quiet study, informal gatherings, or special events.

The physical education complex features a 25-yard, eight-lane pool; large gymnasium; and weight room. Nine acres of athletic fields support archery, tennis, hardball, softball, soccer and track.

Other facilities include the Library with more than 40,000 volumes of reference materials and online databases, the Nursing Building, and the Administration Building which contains offices, learning labs, and studios for painting, music, photography and sculpture. The Alfred J. Smith, Jr., Theatre for the performing arts provides the setting for an outstanding cultural arts program. The Theatre Outback is a black box performance space for experimental theatre and student productions.

A Student Activities Center provides an exclusive domain for student government, newspaper and other student activities.

Founded by the Board of Education of Howard County, HCC was formally authorized by the Howard County Commissioners and approved by the State of Maryland in 1966. The first classes were held in October 1970.

# NONDISCRIMINATION, EQUAL OPPORTUNITY AND AFFIRMATIVE ACTION

The Board of Trustees of Howard Community College is committed to providing equal opportunity through its employment practices, educational programs, admissions and the many services it offers to the community. The Board of Trustees has committed the college to undertake an affirmative action program to enhance equality of opportunity and the recruitment of minorities. It is the policy of the college to abide by all applicable requirements of state and federal law so that no person shall be discriminated against or otherwise harassed on the basis of race, religion, disability, color, gender, national origin, age, political opinion, sexual orientation, veteran status, or marital status. The college will adhere to applicable laws and regulations affecting affirmative action and equal employment opportunity.

# **VISION AND MISSION**

#### Vision

Howard Commuity College is a dynamic, creative learning community that strives to meet challenges by providing innovative solutions leading to learning breakthroughs for all students. We are dedicated to establishing strong student and community connections and to

working together to stimulate students, faculty, and all members of our learning community to develop their talents and to discover their greatness.

#### Mission

Howard Community College creates an environment that inspires learning and the lifelong pursuit of personal and professional goals. The college provides open access and innovative learning systems to respond to the ever-changing needs and interests of a diverse and dynamic community. As a vital partner, HCC is a major force in the intellectual, cultural and economic life of its community.

# ACCREDITATION AND MEMBERSHIP

Howard Community College is fully accredited by the Middle States Association of Colleges and Secondary Schools and authorized by Maryland Higher Education Commission to offer programs of learning and to award the associate in arts degree, associate in applied science degree and certificate of proficiency.

The college's associate degree program in nursing is fully accredited by the National League for Nursing, the national accrediting organization, and approved by the Maryland Board of Nursing. Graduates of the nursing program, upon recommendation by the director of nursing and approval of the Maryland Board of Nursing, may sit for the registered nurse licensure examination.

The college also holds membership in a number of professional organizations including the American Association of Community Colleges, the National Association of College and University Business Officers, the Maryland Association of Community Colleges, the National Association of Community College Trustees, the National Accrediting Commission, National League for Nursing, and Alliance of Cardiovascular Professionals.

Howard Community College's programs of learning are fully approved by the Veterans Administration for veterans' benefits

# **EDUCATIONAL FOUNDATION**

The Howard Community College Educational Foundation, Inc. is a nonprofit, tax-exempt corporation estab-

lished to raise funds to advance and support the programs and facilities of Howard Community College, to support student scholarships, to support equal access, and to ultimately make the college the preeminent institution of its kind.

The HCCEF, established in 1978, is a non-profit corporation made up of a dedicated group of business and community leaders. The HCCEF invests, manages, and disperses funds, assists donors in making gifts appropriate to the college, and advises planned giving prospects. The foundation accepts private support in the form of tax-deductible restricted and unrestricted donations, deferred and in-kind gifts.

Future campaign plans include aggressively seeking private funding to compensate for dwindling state and federal dollars for education. For information, call 410-772-4406.

# HCC ALUMNI AND FRIENDS ASSOCIATION

The HCC Alumni and Friends Association was established in 1988 to provide the opportunity for graduates, former students and friends of the college to maintain a meaningful relationship with the college and to work toward ways to continue to support the college. The Association is administered through the college's Development and Alumni Relations Office.

# STUDENT RESIDENCY

The cost of education in Maryland community colleges is supported by student tuition, aid from the State of Maryland, and contributions from the sponsoring political subdivisions. The appropriate levels and percent of support by students and state and local governments are specified in state law and are provided in state and local appropriations. Equity in funding requires that the level of tuition and governmental support be computed based upon a student's place of legal residence.

A student is a state or county resident for tuition purposes if the student maintains legal residence in the state or county and has done so for a period of not less than three months before the date of the student's enrollment at the college.

Students whose legal residence is outside the State of Maryland pay a higher tuition rate than those whose residence is within Maryland. Similarly, students residing in Maryland but outside the county or counties that support a community college pay a higher rate than county residents, but a lower rate than the rate charged for out-of-state residents. For these reasons, it is essential that the college be informed of the legal residence of each student.

General policies of the Maryland Higher Education Commission and the policies of the board of trustees of this college require that each student, at the time of initial enrollment in any credit course, sign a legally binding statement affirming residency for tuition classification purposes. The statement need not be notarized, but must be affirmed under penalty of perjury as being true, correct, and complete to the best of the student's knowledge and belief. Students who refuse or fail to properly complete such a statement will be assessed tuition at the out-of-state rate.

In the course of the admissions process for enrollment in credit courses, each student will be required to show proof of residency. Students will also be required to show proof of residency at the time they change their address. Students who have signed the required statements and who can verify through factual evidence that they legally reside in Maryland or Howard County will be afforded the appropriate lower tuition rates.

According to General Policies of the Maryland Higher Education Commission, the following factors may be considered as substantiation of legal residency:

- Ownership or rental of local living quarters in which the student resides:
- Substantially uninterrupted physical presence, including the months when the student is not in attendance at the college;
- Maintenance in Maryland and in the county of all, or substantially all, of the student's possessions;
- Payment of Maryland state and local piggy back income taxes on all taxable income earned outside the state:
- Registration to vote in Howard County and/or the state
- Registration of a motor vehicle in the state with a local address specified, if the student owns or uses such a vehicle.

 Possession of a valid Maryland driver's license, with a local address specified if the student is licensed anywhere to drive a motor vehicle.

Persons who have made false statements or have presented false verification in regard to residency shall be charged the higher rates of tuition and may be subject to further college disciplinary measures. In addition, a person may be charged with perjury in a criminal action.

A foreign national lawfully admitted for permanent residence in the United States may be considered a resident for tuition purposes if the student meets the residency requirements as defined by state law. International citizens admitted to the United States for a limited period of time are not normally eligible for in-county or in-state tuition rates. Refer to page 12 for further details.

Information regarding residency requirements in relation to active duty military personnel, their dependents, and members of the Maryland National Guard may be found on page 11.

General questions about residency and tuition classifications should be directed to the Office of Admissions and Advising. Inquiries regarding specific provisions for active duty military personnel and their dependents, members of the Maryland National Guard, or international citizens should also be directed to the Office of Admissions and Advising.

# STUDENT INJURIES

Howard Community College does not provide medical coverage for students who are accidentally injured during classes or who suffer injuries as a result of incidents between students. All students are encouraged to obtain their own medical insurance, especially if they participate in classes and/or activities which require physical activity or exposure to other health risks (e.g. nursing classes, science labs, physical education activities, dance and theater classes, clubs and student government activities, etc.)

# STUDENT HEALTH AND INSURANCE

Nursing and allied health students are required to meet specified health requirements. Documentation is required for proof of freedom from TB and immunity to

rubella, rubeola, mumps, and varicella through vaccination or titer. Hepatitis B vaccine (HBV) or declination is also required and immunization for tetanus.

The college does not administer a student medical insurance plan. Information on how students can obtain health insurance on their own will be available in the Student Activities office (SA201) by the end of registration for fall semester each year. International students attending the college on F-1 student visas are required to have health insurance that provides coverage for health care in the United States. For further information about these requirements, contact the Office of Admissions and Advising.

### **TUITION CHARGES**

(All fees and tuition are subject to change.)

	Per	Maximum
	Credit	Per
	Hour	Semester
Howard County Resident	\$81	\$1215
Maryland Resident		
of Other County	\$178	\$2670
Out of State Resident	\$223	\$3345

Please note that lab fees are attached to certain courses.

#### **Standard Enrollment Fees**

Application Fee	\$15
Special Program Application Fees:	
International Student Application Fee	\$35
Rouse Scholars Program	\$30
Silas Craft Collegians Program	\$25
Summer Scholars Program	\$20
(International citizens: see information lis	sted under
Admissions Policies and Procedures)	

Consolidated Fee.....All students, including senior citizens, pay a consolidated fee. The fee is 10% of the amount determined by multiplying the number of credits for which the student is enrolling and the in-county student tuition rate, regardless of the student's residence. This is a fee plan presented by the Student Government Association and approved by the Board of Trustees in March, 1985.

Of the 10% consolidated fee, the following allocation levels are used to support each area:

1.0% Instructional Materials	
1.7% Technology Fee	
2.8% Building Fund	
4.5% Student Activities Fees	
Late Registration Fee	\$
Schedule Change Fee (per add form)	\$

#### **Course-Related Fees**

Certain courses offered by the college may require a special fee. These fees are identified in the Schedule of Classes published four times per year.

# Other College Charges (Non-refundable)

Graduation (per certificate or degree)\$25
ID Card (late or replacement)\$5
Library Fine (overdue reserve
materials per item per day)\$.50
Insufficient Fund Check Service Charge\$25
Parking Permit (per vehicle, payable
at time of registration)\$5
Proficiency Exam Fees 50% of course tuition
Transcript Evaluation
Single learning program\$15
Multiple learning programs\$25
Traffic Violations\$20
If not paid within 10 business days\$25

# **Tuition Payments**

Tuition and fees are due and payable in full at the time of registration. Howard Community College accepts cash, checks, money orders, credit cards (VISA/Master Card only) and employer purchase orders as payments toward a student's tuition. Checks and money orders should be made payable to Howard Community College. All checks and money orders must include the student's name, current address and phone number on the face of the check. All returned checks are subject to a \$25 service charge.

If, for any reason, a parent, guardian or employer does not honor the check, credit card or purchase order, and fails to fulfill the financial obligation on behalf of the student, the student will be held responsible for those financial obligations to the college. The college will issue grades and transcripts, and offer

admission for subsequent semesters, only to those students whose financial obligations have been satisfied. Please keep receipts of all payments and registration transactions

#### **Tuition Waivers**

The Board of Trustees of Howard Community College has approved a free tuition program for senior citizens residing in Howard County and enrolling in credit and credit free classes in which course space is available. This program, which follows approval by the Maryland State Legislature, enables all people 60 years of age or older or who are retired or disabled as defined by the Social Security or Railroad Retirement Acts to pursue an associate in arts degree or a certificate of proficiency, participate in college activities and enroll in a variety of credit-free courses and seminars. Students eligible for waivers are obligated to pay all additional college fees.

#### **General Tuition Refunds**

To be eligible to receive a refund, students must officially drop a class before the deadlines that appear under "Dates and Deadlines" in the schedule of classes. Deadlines for refunds are also published in the schedule of classes.

For summer session II, tuition refunds will be made only during the first few days of the session. During this period, students will be refunded 100% of tuition and related fees (less a \$25 transaction fee).

Beginning with fall semester 2000, after the semester begins, students are eligible for a graduated tuition refund, less a \$25 transaction fee—100% of all tuition and course fees by the end of the first week of a 15-week semester, 75% of tuition only by the end of the second week, and 50% of tuition only by the end of the third week. After the end of the third week, students are not eligible for refunds.

During summer and winter intersessions, or variable time sessions, students are eligible for graduated refunds, less a \$25 transaction fee only during the first few days of class. Refer to the schedule of classes for the period during which students are eligible for a refund of either 100% of all tuition and course fees, 75% of tuition only, or 50% of tuition only. After the posted refund period for these sessions, students are not eligible for refunds.

Students who have paid their tuition but who have never attended or have stopped attending classes will not receive a refund if they neglect to officially drop a class within the required time period. Classroom seats reserved during registration continue to be held for a student until they officially drop the class. Stopping payment on a tuition check or not attending a class does not constitute an official drop.

Please allow two to three weeks to receive your refund. The college does not issue cash refunds.

#### Federal Financial Aid Refunds

Refer to the Financial Aid section of this catalogue for further information.

# **Tuition Payment Plan**

Howard Community College provides a tuition payment plan for credit students during the fall and spring semesters. (Non-credit students are not eligible to participate in this program.) The plan provides for five equal payments of estimated tuition and fees for a semester. The first payment is due two months before the semester begins. Please contact the business office well before the start of the semester for further information. (Note: Participation in this program restricts early registration options.)

### **Collection Procedure**

A student with an outstanding balance at the end of the semester will have his/her grades, transcripts and registration withheld until the outstanding balance is paid in full. The college will make every effort to contact the student. However, if our attempts are unsuccessful, the account will be turned over to a collection agency, and an additional charge of 35 percent of the outstanding balance will be added to the student's account.

# WELCOME AND INFORMATION CENTER

Students can contact the Welcome and Information Center for up-to-date information regarding college programs and services or access the on-line campus calendar at http://www.howardcc.edu/events. Additionally, the

center can provide students quick access to their academic schedules, course information, and change assigned personal information numbers needed for telephone registration. Students can also obtain copies of the catalogue, schedule of classes, and student handbook from the center, which is located in the Galleria. Students requiring parking permits should also visit the Welcome and Information Center.

### **LIBRARY**

The library contains over 40,000 items including books, video and audiotapes, compact discs, videodiscs, slides, and computer software. A periodical collection of approximately 1,000 titles is maintained, with back files of many of these journals and newspapers available in microform or on computer. Access to the library's holdings is available through HCC CAT, the online public access catalogue. With this automated library system, one can search by author, title, keyword and subject for books and audiovisual materials which are owned by the HCC Library. Other computer databases including Full-Text magazines and newspapers, a nursing index and a variety of other subject specific databases are available on-campus for student and community use via QuestNet, the Library's Local Area Network (LAN). From off-campus, the network and online reserves are available for students and college staff via password access. Library tours and formal library instruction are available by appointment.

# **AUDIO VISUAL SERVICES**

AV Services include Graphic Arts Production and AV Equipment Distribution. The Production area provides resource support for instruction through the production of audiovisual materials: photographics, computer-generated art, instructional publications, transparency output services as well as support and training for faculty and staff in various levels of multimedia production, internet utilization, and on-line instruction. Equipment Distribution provides resource support for instruction through the delivery and maintenance, and network interfacing of audiovisual equipment to and from classrooms, labs and other offices. Additional services are provided for distance learning activities and satellite downlinking for teleconference support.

### **COMPUTER SERVICES**

The college provides a variety of computer services to meet the widespread needs of the entire college community through HCC's state of the art computer labs, computer classrooms, and on-line courses.

# **Academic Computer Support**

Academic Computer Support (ACS) is the office which makes computer services available to students in the College Computer Lab and helps maintain all computer equipment, software and networking found in class-rooms throughout the campus.

The College Computer Lab (L180), located on the first floor of the Library Building, supplies users with computer hardware and software support in a quiet academic environment. IBM compatible Pentium computers, popular multi-media software packages, plus scanning and laser printing services are available to students with a valid student identification or to non-students who have paid an entrance fee. Students may also access Internet with their own e-mail accounts. Lab consultants assist with basic hardware and software problems and provide students with additional computer related reading material and manuals. Stations for physically impaired students are located in the College Computer Lab and computer classrooms. Additionally, there is a Network Certifications Lab (L166) to assist students studying Novell, Microsoft, Cisco and eventually Unix. This lab, using interns, serves as an extension of classes to help students prepare for their certifications exams. There are also five computer classrooms that serve as open labs at Hickory Ridge and a science lab at the main campus.

# **Computer Classrooms**

Throughout the college campus are computer classrooms using cutting edge multi-media software for many subjects from simple word processing to complex computer operations. On the main campus and at the Business Training Center there are classrooms where credited courses are taught in computer repair, computer applications, and computer networking. At the Hickory Ridge campus, classrooms are used for English, math and foreign language skills as well as for Continuing Education.

#### STUDENT CONDUCT

#### **Student Conduct Code**

Students must demonstrate proper behavior and conduct while on campus, attending college functions, or representing the college. Students are required to comply with the provisions of the conduct code and should become familiar with the judicial process. Information on these subjects can be found in the student handbook.

#### Sexual Harassment

The board of trustees of Howard Community College concurs in the action of the Maryland Higher Education Commission in recognizing that sexual harassment seriously damages the integrity of the educational institution, destroys the institution's positive work and educational atmosphere, and causes psychological and physiological damage to the victim. The board condemns such illegal activity and is strongly committed to promoting an educational and work environment free from sexual harassment of any form. For the purpose of these guidelines, the board adopts the sexual harassment definition promulgated by the United States Equal Employment Opportunity Commission.

It shall be a violation of this policy for any member of the college staff to harass a student or employee through conduct or communications of a sexual nature as defined below. It shall also be a violation of this policy for students to harass other students through conductor communications of a sexual nature as defined below or for students to harass staff.

Definitions—Unwelcomed sexual advances, requests for sexual favors and other inappropriate oral, written or physical conduct of a sexual nature when made by a member of the college staff to a student or another employee or when made by a student to another student constitute sexual harassment when:

- a) submission to such conduct is made, either explicitly or implicitly, a term or condition of an individual's education or employment;
- submission to or rejection of such conduct by an individual is used as the basis for academic or employment decisions affecting that individual; or
- such conduct has the purpose or effect of substantially interfering with an individual's academic, professional or employment performance or creating

an intimidating, hostile or offensive academic or employment environment.

Sexual harassment, as defined above, may include but is not limited to the following: verbal harassment or abuse; pressure for sexual activity; repeated remarks to a person, with sexual or demeaning implications; unwelcome touching; and suggesting or demeaning sexual involvement accompanied by implied or explicit threats concerning one's grades, job, etc.

The college, upon receiving a sexual harassment complaint will ensure: 1) that the right to confidentiality, both of the complainant and of the accused, will be respected consistent with the college's legal obligations, and with the necessity to investigate allegations of misconduct and take corrective action when this conduct has occurred; 2) that persons filing complaints of sexual harassment will be protected against reprisals, but that the deliberate filing of false accusations of sexual harassment shall be condemned and may lead to possible disciplinary action.

A substantiated charge against an employee of the college shall subject that employee to disciplinary action, including discharge.

A substantiated charge against a student of the college shall subject that student to disciplinary action including suspension or expulsion.

# **Drug and Alcohol-Free Campus**

It is the intent and obligation of the college to provide a drug-free, healthy, safe and secure educational environment. Students are expected to contribute to the desired environment by conducting themselves within the guidelines of the student conduct code.

The unlawful manufacture, distribution, dispensation, possession or use of illicit drugs or alcohol as a part of any Howard Community College activity whether on or off college premises is absolutely prohibited. Violations of this policy will result in disciplinary action, up to and including dismissal, consistent with normal college policy and procedures. In addition, any violations may have legal consequences consistent with local, state, and federal law. The college will cooperate with appropriate health and law enforcement agencies.

The college recognizes drug or alcohol abuse as an illness and a major health problem. The college also recognizes drug or alcohol abuse as a potential safety and security problem. Students needing help in dealing

with such problems are encouraged to use their health insurance plans, the college Academic Support and Career Services Office and other appropriate community agencies. A list of other county agencies, and descriptions of various health risks associated with the use of illicit drug or alcohol abuse, is available in the offices of the Academic Support and Career Services, Student Life, Human Resources, and the Athletic Department.

Voluntary participation in an assistance program will not jeopardize enrollment at the college and will not be noted in any student record provided that be-

havior is consistent with established standards. However, voluntary participation in an assistance program will not prevent disciplinary action for violation of the policy described here.

For further information, pick up one of our Drug-Free Campus brochures in the Office of Student Life or on the table outside Security. The brochure includes the effects and corresponding names of a variety of drugs and lists local service agencies which provide assistance and support to those seeking help.

# Admissions Policies and Procedures

Howard Community College maintains an open door policy of admission. Persons who have the maturity and ability to benefit from the college's learning programs will be admitted on a space available basis without regard to race, gender, age, religion, ethnic background, marital status, sexual orientation, political persuasion or disability. No student will be denied initial admission to the college on the basis of previous educational experience, except as prescribed by law.

Students must submit a completed application and a \$15 application fee. Application fees differ for international (F-1) students and some special programs. Students must also provide proof of legal residency such as a driver's license or lease agreement. Students are encouraged to submit high school transcripts or transcripts from previously attended postsecondary institutions. This information is used to advise students and does not affect general admission to the college.

Although admitted to the college, students may not enroll in particular courses unless they have the necessary educational background. The college has a mandatory basic skills assessment policy. Placement tests are required for most students planning to enroll in English or math courses or courses with English or math prerequisites. Exceptions are made for students who provide transcripts verifying prior college-level English or math coursework. The entire English placement test may also be waived for students with an SAT verbal score of 550 or higher. The reading portion of the English test may be waived for students with an ACT reading subtest score of 21 or higher; the writing portion may be waived with an ACT English subtest score of 21 or higher. The basic math placement test is not required for students with an SAT math score of 550 or higher or an ACT math subtest score of 21 or higher. These SAT and ACT scores result in placement into MATH-122, MATH-124, MATH-127, MATH-128, MATH-131 or MATH-138. However, students seeking a higher course placement must take an advanced math placement test. Placement exams take up to five days to score. Testing is ongoing. Students should test soon enough

to take advantage of early registration options. The Testing/Developmental Studies Policy (page 21) provides further details regarding placement assessment requirements.

All students will be offered assistance in planning a program of learning in accordance with their academic background and goals. Students must attend a placement test information session or meet with an advisor to review placement test results. Results are **not** available by phone. Students are strongly advised to begin any required developmental course sequences immediately and they are required to do so upon completion of 12 credits. Non-degree seeking students must meet with an advisor on or before completion of 12 credits to determine if they will be required to take placement exams.

There are additional admissions procedures required for high school, cardiovascular technology, nursing, emergency medical services, transfer, international, and previously dismissed students. Students seeking admission to radiologic technology clinical coursework must complete the specific admissions procedures agreed upon by Howard Community College and Anne Arundel Community College. Different application procedures are required for the James W. Rouse Scholars Program, the Silas Craft Collegians Program, the Freshman Focus Program, the Early Entrance Program, and the Summer Scholars Program for High School Students (see page 33).

# **High School Students**

Various enrollment options are available to high school students.

CONCURRENT ENROLLMENT—Juniors and seniors attending the college on this basis may enroll for a maximum of two courses per semester. Credits earned apply toward high school graduation only under highly specific circumstances. The award of high school credit

# **ADMISSIONS POLICIES AND PROCEDURES**

for college coursework is arranged through a student's high school and does not involve the college in any way. Requirements for admission include submission of the college's **Early Entrance Program** materials, along with official high school transcripts, and proof of legal residency. Appropriate placement testing is also required. Public and private high schools also have policies and procedures which students must follow.

SUMMER ENROLLMENT—Juniors and seniors may attend the college during the summer preceding their junior or senior year. Application procedures are identical to those for Concurrent Enrollment (see above). Qualified rising sophomores, juniors and seniors may enroll in the Summer Scholars Program. See page 33 for further information.

EARLY ADMISSION—This option enables seniors to complete high school graduation requirements at Howard Community College under very specific conditions. Students are required to complete thirty credits of college coursework, including at least one college-level English composition course. Students must apply for this option during their junior year. Application procedures include submission of the college's standard application, the application fee, high school transcripts, college entrance exam scores, proof of residency, and two letters of recommendation which address the student's academic ability and social and emotional maturity. Students must also submit a letter of consent from their high school principal and any other required school system officials. The college also requires an admissions interview attended by the student and a parent or guardian. Students must consult high school personnel regarding specific courses needed to fulfill high school graduation requirements. The college reserves the right to grant consent to enroll for the Early Admission option on a case-by-case basis. Consent to enroll is dependent upon what the college determines to be in the student's and its own best interests.

#### Gifted and Talented Students

Students in the eighth through tenth grades who are enrolled in public or private school gifted and talented programs, or who have otherwise demonstrated outstanding ability, may be considered for ad-

mission on a **case-by-case** basis. In addition to the standard application, application fee, and proof of residency, students must submit the supplemental application for secondary school students, and official secondary school transcripts (including standardized test scores). Other documentation of outstanding abilities and maturity, such as test scores, recommendations, portfolios or awards, must be submitted to assist with admissions decisions. A pre-admission interview, with at least one parent or guardian in attendance in addition to the student, is required. Appropriate placement testing is also required. Students attending the college on this basis may enroll for a maximum of two courses per semester.

Howard Community College reserves the right to grant admission to secondary school students on an individual basis.

# Cardiovascular Technology and Nursing Students

Applicants to the Cardiovascular Technology and Nursing Programs must have a high school diploma or General Education Development (GED) diploma. In addition to standard application procedures, supplementary procedures are required which vary by program. All nursing applicants are required to take the English placement test regardless of prior educational experience. Acceptance to nursing clinical coursework is based upon fulfillment of clinical prerequisites, legal residency, and the availability of spaces.

As part of the clinical nursing application process, students must indicate whether they are seeking admission to the daytime or evening/weekend program. Once they accept a seat in the option they select, students are committed to that option for all subsequent clinical nursing semesters.

The Cardiovascular Technology Program is a state-wide instructional program. All Maryland residents who fulfill program prerequisites are eligible to enroll at Howard County tuition rates. Clinical coursework is available as a day option only. There are five separate options for the Cardiovascular Technology Program, including an AAS degree and four certificate programs. (Please contact the Office of Admissions and Advising or the CVT Program Director for information on applications and admissions procedures.)

# **ADMISSIONS POLICIES AND PROCEDURES**

# **Emergency Medical Services Students**

The Emergency Medical Services Program is offered in conjunction with the Howard County Department of Fire and Rescue Services. Students may enroll in non-clinical coursework at any time. However, requirements for entering the program include current EMT-Basic Certification, specific EMS experience, and completion of prerequisite coursework. In order to take the EMT-B course, students must be 18 years of age (or 16-18 with parental permission). Students must be 18 years of age on or before the first session of the EMT-P course sequence. For more information, contact the Office of Admissions and Advising or the EMS Program Director. Clinical EMSP course work will be offered at HCC's Gateway Building campus. Requirements for admission to clinical coursework are subject to change. Students are responsible for fulfilling all prerequisites and program requirements.

#### **Transfer Students**

Students planning to transfer to the college should arrange an appointment with an admissions counselor. In addition to standard application procedures, students seeking credit for prior college-level coursework must declare a major and officially request a transcript evaluation by completing and submitting a Transcript Evaluation Request Form and the appropriate transcript evaluation fee (\$15 for a single learning program evaluation; \$25 for multiple evaluations). Transfer students must also submit official transcripts and appropriate catalogues and other documentation necessary for transcript evaluation. The college will award transfer credit when appropriate for prior college-level coursework successfully completed at foreign colleges and universities. However, students with foreign transcripts must have them evaluated by a nationally accredited foreign transcript evaluation service and submit such evaluations to the Office of Admissions and Advising for further review. Information regarding such services is available in the Office of Admissions and Advising. Details regarding credit for prior learning policies are provided on page 23.

# Military Personnel and Veterans

Howard Community College welcomes the opportunity to assist military personnel, their families, and

veterans in achieving their academic goals. The college is a member of Service Members Opportunity Colleges (SOC). The college also serves participants in the Veterans' Educational Assistance program.

The application fee is waived for all active duty military personnel. In accordance with Maryland State law all active duty personnel are eligible to pay in-state tuition regardless of legal residence. Active duty personnel residing in Howard County are eligible to pay incounty tuition.

Active members of the Maryland National Guard are entitled to a twenty-five percent discount of their applicable tuition based upon legal residency. This discount does **not** apply to fees.

Military personnel and veterans should contact the Office of Admissions and Advising for information pertaining to enrollment, transcript evaluation, and tuition assistance. The Financial Aid and Veterans' Affairs Office should be contacted for information related to veterans' benefits, financial aid, student employment, and scholarships.

#### **International Citizens**

F-1 IMMIGRATION STATUS—International citizens seeking admission with F-1 immigration status must consult the Office of Admissions and Advising. Admission requirements include:

- 1. Application for Admission and \$35 application fee
- Official transcript of the TOEFL: Test of English as a Foreign Language (a score of 550 or higher required on the paper-based test; a score of 213 or higher is required on the computer-based test).
- 3. Certification of Finances form, bank statements, and statements of support
- Official secondary school transcripts verifying graduation and grades.
- College/university transcripts (if applicable) translated in English.
- 6. Proof of health insurance for health care in the United States.

F-1 students are expected to be proficient in English. All requirements must be completed and submitted by the following dates: June 15 for the Fall semester; October 15 for the Spring semester; March 15 for the Summer semesters. All requirements and deadlines are strictly upheld.

# **ADMISSIONS POLICIES AND PROCEDURES**

F-1 students enrolled at other colleges or universities may attend Howard Community College. Specific procedures must be followed, including adherence to standard application processes, presentation of proof of immigration status (I-94), and submission of a letter of consent to enroll at Howard Community College prepared by the institution that issued their I-20.

OTHER INTERNATIONAL CITIZENS—Tuition for international citizens is based upon immigration and residency status as well as state law. In addition to standard application procedures, all international citizens are required to submit proof of their immigration status at the time of application. Photocopied credentials are **not** acceptable. Any student without appropriate documentation of immigration status will be charged the *out-of-state* tuition rate.

International citizens with residency cards, refugee, or asylee status, or A, E, G, H, I, K, L, N, O, and R visas are eligible for in-county/in-state tuition based upon place of residence while in the United States

providing they can provide verification of their immigration status. Other international citizens are charged outof-state tuition in accordance with State law.

International citizens are generally not eligible for financial aid with the exception of those with residency status. The Financial Aid Office verifies eligibility for financial assistance.

# **Students Seeking Readmission**

Students who previously attended the college may need to update admission information. If this is necessary, a new application must be completed and proof of residency provided, however, the application fee will be waived. Students previously dismissed for academic reasons must submit a letter requesting approval for readmission from the vice president of academic affairs. Nursing students should consult the Nursing Student Handbook to determine procedures for re-entry to clinical nursing coursework.

# Financial Aid Policies and Procedures

It is the goal of the college that no student should be restricted from attending this institution because of limited financial resources. To meet this goal the college maintains a program of grants, scholarships, loans and part-time employment for eligible students who are accepted and enrolled in the college as certificate or degree-seeking students in good standing. Howard Community College awards financial aid so that no person should be discriminated against on the basis of race, religion, disability, color, gender, national origin, age, political opinion, sexual orientation, veteran status, or marital status.

# **Application Procedures**

Students should complete a Howard Community College Financial Aid Application and the Free Application for Federal Student Aid (FAFSA) to begin application procedures. These forms are available at the Financial Aid Office and from secondary school guidance offices.

Students seeking any type of financial aid should apply by May 15 (March 1 for Maryland State Scholarship). Applicants not attending HCC in the fall should apply for financial aid by November 1 for the Spring 2001 semester. These are priority deadline dates. Applications submitted on time are given first priority for limited grant funds. You may apply for the Pell Grant until June 30, 2001, provided enrollment requirements are met.

# **Eligibility Criteria**

You are eligible to apply for Financial Aid if:

- You have a high school diploma or a GED by the first day of the term.
- You are a U.S. citizen or an eligible non-citizen.
- You demonstrate financial need by filing the Free Application for Federal Student Aid (FAFSA).
- You are making satisfactory progress toward completion of a degree or certificate.

- You are not in default on a Perkins Loan, Stafford Student Loan, Unsubsidized Stafford Student Loan, or PLUS at any post-secondary institution.
- You do not owe a balance or a refund on a Federal Pell Grant or Federal Supplemental Educational Opportunity Grant at any post-secondary institution.
- You are enrolled in an eligible certificate or a degree program at HCC.\*
- You are in compliance with Selective Service registration
- You have a valid Social Security Number.

\*Students enrolled in programs not leading to a degree or certificate awarded by Howard Community College, such as CPA Preparation or Chemical Dependency Counseling or Paralegal Studies, are not eligible for Financial Aid through HCC.

The U.S. Department of Education conducts database matches to determine whether a student meets certain eligibility criteria for Financial Aid. The result of these matches will appear on your Student Aid Report (SAR). These include matches with: Selective Service, National Student Loan Data System (NSLDS), Immigration and Naturalization Service (INS), Department of Veterans Affairs (VA) and Social Security Administration (SSA). HCC will disburse financial aid only to students who successfully pass all database matches. If you fail any of the database matches, HCC cannot disburse any financial aid including Federal Pell Grants until your status from these matches has been confirmed/resolved. Failure to resolve any conflicting database matches during the federally required time frame will result in the cancellation of estimated financial aid awards.

You may receive aid only for classes which you are registered in as of the official last date to drop for the semester. You may not receive aid for late start classes such as Office Technology or mini-session classes such a Microsoft or Novell, unless you register for these classes during the first three weeks of the semester—before the official drop period for the semester has ended.

#### **Transfer Student Procedures**

All transfer students must have a Financial Aid Transcript(s) submitted to HCC whether or not they received financial aid at their previous institution(s).

If a transfer student received a Federal Pell Grant in the fall semester and is planning to attend Howard Community College the following spring semester, a duplicate copy of the Student Aid Report (SAR) or Information Acknowledgement SAR listing HCC's Federal code 008175, the appropriate financial aid transcripts, and an institutional Financial Aid application should be submitted to the Howard Community College Financial Aid Office.

If a transferring student has a Federal Stafford Loan (formerly named GSL) or Federal Unsubsidized Stafford Loan at another college in the fall semester and plans to attend HCC the following spring semester, the student must cancel any remaining disbursements at the prior college and reapply by completing a Federal Family Education Loan (FFEL) packet at Howard Community College.

If a student received a Maryland State Scholarship, the student should check with the Maryland State Scholarship Administration to see if the scholarship can be transferred to HCC and, if so, to determine the amount of the award

#### Award Procedures

All financial aid awards are made in accordance with two criteria: demonstrated financial need and the student's ability to maintain satisfactory academic standing. Completed files are acted upon on a first come-first served basis. Some types of aid have limited funding. A financial aid file is complete only after the following documents or information has been received:

- A. New Students–Confirmation of Admission status in a certificate or degree program.
- B. All Students–Completed HCC Student Financial Aid Application.
- C. All Students-Completion of the FAFSA and the college is able to access electronically the results of the FAFSA processing (ISIR).
- D. All Students–Submission of all other information requested by the Office of Financial Aid (required prior to disbursement of federal aid).

E. Transfer Students-submission of Financial Aid Transcript(s) from all other colleges attended whether or not you received aid (required prior to disbursement of federal aid).

#### **Disbursement Procedures**

Students eligible for financial aid will have their financial aid applied directly to their tuition bill after their file is complete. If the financial aid disbursed (paid) exceeds the tuition bill, the student gives permission for the "excess" aid to be used for purchasing books and supplies in the HCC bookstore unless a written statement declining to do so is submitted to the Financial Aid Office before charging books and supplies for the term in question. Estimated aid awards cannot be used to purchase books. Any financial aid funds, including Federal Stafford Loans, over and above tuition, fees, and bookstore charges are mailed directly to the student by HCC check within 14 days after the credit balance is created each semester, with the exception of an HCC Scholarship. HCC Scholarships can be used only for tuition, fees, and books and supplies and are paid after all other grant and scholarship aid is applied. The combination of grant and scholarship aid, if it includes HCC Scholarship, cannot exceed the tuition, fees, books and supplies charged on the student's account.

Students on Federal Work Study and the HCC Student Assistants Program receive checks bimonthly from the Cashier's Office based on the number of hours worked.

Federal Stafford Loan, Federal Unsubsidized Stafford Loan and Federal PLUS Loan Funds are applied directly against the tuition bill after the borrower endorses the check. Loan disbursements received by EFT do not require additional signature/endorsement. The student will be notified in writing of the receipt of EFT loan funds and may cancel the disbursement in writing within 14 days of receipt. Due to a 30-day delay in disbursing loans, loan awards cannot be used to purchase books.

Summer classes and Intersession classes will be considered in a separate session when we calculate your Pell Grant and will be prorated. No other aid or HCC Scholarship is applicable toward Intersession and Summer classes.

# Continued Eligibility for Receipt of Financial Aid

Student aid awards are normally for one academic year. Continuation is dependent upon meeting application priority deadline dates each year, re-establishing financial need, making satisfactory academic progress, and continuing to enroll for at least one (1) credit per semester (six credits for loan applicants).

#### **Determination of Need**

Need for financial aid is determined by the following calculation:

Cost of Attendance Budget

Less Expected Family Contribution

Equals Financial Aid Eligibility (Need)

To determine the Expected Family Contribution (EFC), the calculation formula used is the Federal Need Analysis mandated by the U.S. Congress. By completing the Free Application for Federal Student Aid (FAFSA), your family contribution is calculated and reported on the Student Aid Report (SAR) which is mailed to your home by the federal processor.

# **Expenses at Howard Community College**

For a Howard County student living at home with parents, the following Cost of Attendance budget represents the estimated student cost for nine months. (Based on 13 credit hours and \$81 per credit tuition cost without individual course lab fees).

Tuition and Fees*	\$2,316
Books and Supplies	800
Room and Board	4,280
Personal	200
Transportation	<u>960</u>
Total Budget	

Budgets for other categories of students may be obtained from the Financial Aid Office.

\*Tuition figures are based on FY 00-01 fee schedule.

# Student Consumer Rights and Responsibilities

Section 493.A of the Higher Education Act as amended in 1998 requires post-secondary educational institutions to disseminate relevant, candid information on student financial aid programs available at the college. These rights and responsibilities may be found in "The Student Guide," (U.S. Department of Education) which is available in the Student Financial Aid Office.

Any change in the family financial situation, address, or school enrollment must be reported to the Financial Aid Office. Students have the right to request a review of their financial aid package when a change in family or personal circumstances occurs. Students may review their financial aid records upon appointment.

# Information Dissemination and Report Disclosure

The U.S. Department of Education requires HCC to disseminate information and make report disclosure on certain information available to students. These information and reports include: Voter Registration, Equity in Athletics, Campus Crime and Security, Completion and Transfer Out Rates, and Drug and Alcohol-Free Campus. For further information on the listed topics, please inquire within the Office of Financial Aid & Veterans Affairs, or refer to the HCC website at www.howardcc.edu.

# **Financial Aid Programs**

Howard Community College maintains and/or coordinates the following financial aid programs for students. All financial aid awards are for one academic year and it is the student's responsibility to reapply each year.

Students interested in receiving financial aid may receive counseling services concerning application procedures and program eligibility from the staff of the Financial Aid Office.

#### **GRANTS**

**Federal Pell Grant**—Pell Grant is a Title IV program offering need-based grants ranging up to \$3,300, dependent upon appropriations by Congress, student eligibility and level of enrollment.

Federal Supplemental Educational Opportunity Grant (FSEOG)—FSEOG is a Title IV program offering grant funds for students demonstrating exceptional financial need. Grants can range from \$100 to \$4,000 per year, based on the student's need and funds available from the U.S. Department of Education. Typical full-time grants at HCC are \$400 per year. Priority must be given to Federal Pell Grant recipients with the lowest Expected Family Contributions (EFC) and those who apply by the May 15 priority deadline.

#### SCHOLARSHIPS

Maryland State Scholarship Program—The Maryland State Scholarship Administration offers several need-based scholarships for Maryland residents. The scholarships most frequently awarded to HCC students include, but are not limited to, the Educational Assistance Grant, the Guaranteed Access Grant, Senatorial Scholarship, and Delegate Scholarship. In order to be considered for a Maryland State Scholarship, a student must file the Free Application for Federal Student Aid (FAFSA) by March 1. Some state scholarships may have additional application requirements. Some scholarships require full-time (12+ credit hours) enrollment. Please check with the Maryland State Scholarship Administration at 800-974-1024 for additional information.

HCC Grants/Scholarships—A need-based grant/scholarship program funded from Howard Community College's operating budget. Scholarships are available to new and returning students. Awards range from \$100 to \$2500, not to exceed the cost of tuition, fees, and books in combination with other grant/scholarship aid. Priority is given to those with the lowest EFC and those who apply by the May 15 priority deadline.

HCC Educational Foundation, Inc. Scholarships—The college's foundation maintains a scholarship program through contributions from private business, foundations, civic organizations and individuals. Scholarships are available to returning and entering students. Most scholarships are need-based range from \$50 to \$2500 per year, not to exceed the cost of tuition, fees, and books in combination with other grant/scholarship aid. Priority is given to those who apply by the May 15 priority deadline. Some have additional requirements beyond need such as academic achievement. For more

information on specific scholarships available, consult the bulletin board in the Financial Aid office. To contribute a scholarship for students, contact the HCC Educational Foundation Office at 410-772-4450.

#### PART-TIME FMPI OYMENT

**Federal Work Study Program**—Federal work study is a Title IV program offering part-time work for HCC students who demonstrate financial need. Students work from 5 to 17 hours per week, dependent upon availability of federal funds and students' academic course work. Seven percent of the school's annual Federal Work Study allocation will be used to fund community service jobs. For more information, please inquire in the Financial Aid Office.

HCC Student Assistants Program—An institutionally funded part-time work program. HCC students who demonstrate financial need are given priority. Any student who desires part-time employment at the college may apply. Students work 5 to 17 hours per week, dependent upon availability of college funds, and students' academic course work. For more information, please inquire in the Financial Aid Office.

#### LOANS

Federal Stafford Student Loans—Stafford loans are a Title IV financial aid program and federal aid eligibility requirements apply. Loan applicants must be actively enrolled in at least six credits. Applications are available at local banks and credit unions, and the Financial Aid Office. Students must remain in good academic standing. An FFEL Loan packet must be completed in addition to the FAFSA and HCC Financial Aid Application. Loans are available the first year in a program up to \$2,625 to students who demonstrate need on the FAFSA. The loan limit for a second year in an associate degree program is \$3,500. Students who do not demonstrate need on the FAFSA may apply for an Unsubsidized Federal Stafford Student Loan up to the annual limit. "Independent" students have additional unsubsidized Stafford Loan eligibility of \$4000 per year, not to exceed the cost of attendance. The interest rates are variable and are set as of July 1 each year. For more details regarding this program you should read "The Student Guide," a free financial aid brochure available in the

Financial Aid Office. Students enrolled in certain certificate programs may not be eligible for the full loan amount due to the short duration of the program. Please inquire in the Financial Aid Office for more information. Students who wish to borrow funds from FFEL loan programs at HCC are required to complete Loan Entrance and Exit counseling each year.

Federal PLUS Loans—Federal PLUS Loans are a Title IV program which enables parents with good credit histories to borrow to pay the educational expenses of their child if the student is classified as "dependent" and is enrolled at least half-time. Applications are available at local banks and credit unions, and the Financial Aid Office. Students must remain in good standing. A PLUS loan application must be completed in addition to an HCC Financial Aid Application and a FAFSA. The PLUS loan is not a need-based loan. A parent is eligible to borrow up to the cost of attendance less any other financial aid the student is receiving. The interest rate is variable and set on July 1 each year. For more details regarding this program you should read "The Student Guide," a free financial aid brochure available in the Financial Aid Office.

# Federal Return of Title IV Funds Policy

Students receiving financial aid have the responsibility to follow the college's withdrawal procedures as outlined in the Howard Community College Catalogue. Students who wish to rescind their official withdrawal submitted to the college must due so within one week of the original withdrawal and notification must be provided in writing to the Office of Financial Aid.

The 1998 Reauthorization of the Higher Education Act requires the college calculate a Return of Title IV Funds on all federal financial aid students who withdraw (officially or unofficially) from all classes on or before the 60% attendance point in the semester. A prorata schedule is used to determine the percentage of semester the student attended based on the withdrawal date/last date of attendance.

The percentage of the semester the student attended is calculated as follows:

Number of days in attendance
Number of days in semester

The number of days counted includes all calendar days in the semester including weekends and holidays, but excludes college breaks of five or more days.

The percentage of semester the student attended is used to calculate the amount of the student's earned versus unearned federal aid funds. The unearned portion of federal aid funds received must be returned to the appropriate aid program in accordance with the Order of Return as mandated by law. The Order of Return is: Federal Unsubsidized Loan, Federal Subsidized Loan, Federal PLUS Loan, Federal Pell Grant, Federal SEOG Grant, Other Title IV Aid.

The college is responsible for returning the lesser of Unearned Title IV Aid or Unearned Institutional Charges. Unearned Institutional Charges are based on the determined percentage of the semester the student did **not** attend. The College is responsible for its return of funds first, followed by the student's return of funds.

The student is responsible for returning:

Amount of Unearned Title IV Aid

- Amount of Aid School Returns
- Amount Student Returns

The College must return its portion of Unearned Title IV aid (loan and grant) to the appropriate federal program within 30 days from the student's withdrawal date as determined by the Office of Financial Aid. If the amount the student returns includes a federal loan program, the student is responsible for repayment of the loan in accordance with the terms of the loan program. If the amount the student returns includes grant aid, the student must repay 50% of the grant money received, rather than 100%.

The student must return unearned grant aid to the college within 45 days from date of notification. Failure by the student to return or make arrangements to return unearned grant aid to the College within 45 days will result in the student being reported to the U.S. Department of Education (USDOE). The student will be considered in an Overpayment Status, and will not be eligible for additional aid at any post-secondary institution participating in Title IV Aid programs. Students who are reported to USDOE in an Overpayment Status should contact the USDOE to make payment arrangements to repay the necessary grant funds.

Examples of Federal Title IV Return of Funds calculations are available in the Office of Financial Aid &

Veterans Affairs. Students who stop attending Howard Community College may not receive further financial aid disbursements, may lose some or all of the aid that has already been disbursed to their account, may be responsible for repayment of unpaid charges, and may be considered in Overpayment status with USDOE.

Students who stop attending all classes without officially withdrawing from the college will be subject to a Return of Funds calculation at the end of the semester, based on their last date of attendance as determined by the Office of Financial Aid.

# Satisfactory Academic Progress Standards

Financial aid is intended to meet the financial needs of the student who otherwise could/would not consider continuing their education. Students who receive financial aid must not only demonstrate financial need, but must also make satisfactory academic progress as determined by Howard Community College in accordance with federal regulations.

Financial aid recipients are required to be in good standing and to maintain satisfactory academic progress toward their degree/certificate requirements for each semester in which they are enrolled. Satisfactory academic progress, as described below, is evaluated at the end of the Fall and Spring semesters. Failure to maintain satisfactory academic progress may result in cancellation of financial aid awards.

**Semester Requirements**—The semester requirements for minimum satisfactory performance for financial aid recipients are defined as follows:

- semester quality point average (QPA) of at least 2.0.
- completion of at least 50% of attempted credits for the semester.

The minimum quality point average and the fifty percent completion standards will be reviewed at the end of the fall and spring semesters.

**Cumulative Requirements**—In addition to meeting the above minimum standards, federal regulations mandate that the following cumulative requirements also be satisfied:

- At the end of the student's second year (as measured by credit hours attempted) the student has at least a cumulative grade point average of 2.0 (for example, earned at least a 2.0 cumulative QPA after attempting 48 credits).
- The student must complete his or her educational program within a time-frame no longer than 150% of the published length of the educational program (for example, completed his or her program after attempting a maximum of 90 credits for a 60 credit program).

Required developmental courses are calculated into the QPA and are counted as regular course work. Required developmental courses will be added onto the program length when determining compliance with the 150% of program length completion requirement. Federal regulations require that the Financial Aid Office track the academic progress of financial aid recipients from the first date of enrollment, whether or not financial aid was received. Credits transferred from another institution will be considered as attempted and completed credits in the evaluation of the 150% program completion standard.

The two cumulative standards outlined above are eligibility requirements for student aid. Students who fail to meet the cumulative standards will be placed immediately on Financial Aid Restriction, not Financial Aid Probation. No financial aid will be disbursed for the student during subsequent semesters unless the student has made an appeal of the Financial Aid Restriction and the appeal is granted for that semester. The only exception is that a student who is on Financial Aid Restriction because of failure to satisfy the 2.0 cumulative GPA requirements will regain eligibility when/if his/her cumulative GPA is raised to a 2.0 or above.

# Treatment of W, I, L and N Grades and Repeated Course Work—

- Course withdrawals (W) after the drop/add period are not included in the QPA calculation, but are considered a non-completion of attempted course work.
- Incomplete (I) grades are not included in the QPA calculation, but are considered a non-completion of attempted course work until the Incomplete grade is replaced with a permanent grade and academic progress can be re-evaluated.

- 3. The "L" grade is an incomplete achievement of course objectives. The "L" grade is included in the QPA calculation as "0" quality points earned and is treated as a non-completion of attempted coursework.
- An audit (N) grade is not considered attempted course work. It is not included in the QPA calculation or completion rate determinations.
- 5. The highest grade earned in a course that is repeated will count in the QPA computation, but every repeated attempt will be included in the completion rate determinations. Please note that no financial aid can be disbursed for a repeated attempt if the student already has achieved a passing grade for that course.

**Financial Aid Probation**—Failure to meet the minimum *semester* quality point average standards or to complete fifty percent of semester course work attempted will result in Financial Aid Probation for the next Fall or Spring semester attended. Financial aid can be received during the semester of probation. Payment of future semester tuition bills will be held until the grades and course completions have been reviewed for the semester of Financial Aid Probation.

Students receiving financial aid for the first time will be placed on Financial Aid Probation if they do not meet the minimum grade point average and course completion standards as noted in this policy. Transfer students will be treated as first time students for their first semester, but accepted credits from another institution will be considered as attempted credits in the evaluation of the 150% program completion and 48 credit cumulative standards. Mitigating circumstances may exist which will need to be reviewed via the appeal process described in this policy.

Financial Aid Restriction—Students who, after the Financial Aid Probation semester or a Financial Aid Restriction semester, fail to complete fifty percent of semester course work attempted and/or fail to achieve a semester QPA of 2.0 or better, will be placed on Financial Aid Restriction for the following Fall or Spring semester attended. No financial aid will be disbursed during that semester or for summer or intersession courses as well. Students failing to meet the cumulative requirements will also be placed on Financial Aid Restriction. Any aid awarded for the restriction semester

will be cancelled. No aid will be disbursed during subsequent semesters unless the student has made an appeal of the Restriction and the appeal is granted for that semester attended. The only exception is that a student who is on Financial Aid Restriction because of failure to satisfy the 2.0 cumulative QPA requirement will regain eligibility when/if his/her cumulative QPA is raised to a 2.0 or above.

Reinstatement of Aid After Financial Aid Restriction—Reinstatement of financial aid after a student is placed on Restriction is achieved as follows:

- The student submits a written letter of appeal in accordance with the appeal process and the Financial Aid Appeals Committee grants the appeal. The student is placed on Financial Aid Probation for the semester rather than on Restriction: or
- The student attends HCC during the Restriction semester, pays for tuition and fees without the help of student financial aid, and does well enough in the coursework to satisfy all the satisfactory academic progress standards.

Students who have been placed on Restriction cannot skip a semester and regain eligibility. No financial aid will be disbursed during subsequent semesters for students on Restriction.

Students with a cumulative QPA under 2.0 will be removed from Restriction Status once their QPA is above a 2.0 and they have satisfied all Satisfactory Academic Progress Standards.

Students who have exceeded 150% of their program length cannot regain financial aid eligibility except on a semester-by-semester basis through the appeal process only.

Appeal Process—Appeals of Financial Aid Restriction must be made in writing to the Director of Financial Aid by the date specified in the Financial Aid Restriction notification letter. The Financial Aid Appeals Committee will review the appeal and notify the student in writing of their decision within five (5) working days of the committee's meeting date. All decisions made by the Financial Aid Appeals Committee are final.

When an appeal letter is received, any aid which had been cancelled due to the Restriction status, will be temporarily restored to an estimated status until the appeals committee makes a decision. These students

(with estimated aid) may register for classes and their registration will be held until the Appeals Committee meets. If the appeal is granted, the Financial Aid Office will resume processing the student's aid. If the appeal is denied then the aid will be cancelled and the student is responsible to either drop the classes or pay for the classes. Any student whose appeal is denied and who fails to drop the classes before the 100% refund period is over must pay for the classes.

The appeal letter must address the reason satisfactory academic progress was not made, why the reason has been resolved, as well as an outlined plan for future academic success.

# **Student Support Services**

Counseling services and academic support (tutoring) are available for HCC students who are physically handicapped, first generation college students or students from low income families. These students can receive such services through the college's Student Support Services (410-772-4822, Room N-105).

#### **Financial Aid Reminders**

- Apply on time!
- It takes six to eight weeks to process an application for any type of financial aid. Plan ahead!
- Use your federal income tax returns in completing any financial information. This will save you time later!
- All financial aid is awarded for one academic year.
   You must re-apply each academic year.
- Transfer students must submit a Financial Aid Transcript prior to receiving financial aid at HCC.
- Don't assume you are not eligible for financial aid. Apply!

# **VETERANS AFFAIRS**

Howard Community College is particularly concerned with the educational, vocational and personal advance-

ment of those men and women who served in the armed forces. Ex-military personnel are able to obtain assistance in applying for veterans' benefits, educational and occupational counseling, job referral, and academic advising.

A student planning to apply for benefits should contact the HCC Office of Veterans Affairs as soon as the student has enrolled in the college or registers for the next semester's classes. Student tuition and fees are paid up front by the student and not by the Veterans Administration. Therefore, the student, and not the Veterans Administration, is held responsible for prompt payment of all college costs. Benefit checks are sent directly to the student by the Veterans Administration. Veterans should plan finances to cover tuition and fees and at least two months of living expenses, since benefit checks often do not start arriving before that time.

VA benefits will pay for any classes required in a student's major with the following exceptions. VA will not pay for any class that is audited.

If a VA student is taking a course required only for transfer to a four-year college, the student must provide a letter on college letterhead from the other college to document the requirement.

VA regulations require satisfactory progress in all programs leading to a degree or certificate.

The following grades are considered unsatisfactory: F, L, W and NA. See the section of the catalogue dealing with the grading system for the definition of each designation. A veteran receiving these grades may be subject to repaying all funds received for that course. Repeat course work for which an unsatisfactory grade was assigned (F, L, W and NA) may be eligible to be certified for educational benefit payment. Repeat coursework previously completed with a passing grade (A,B,C,D) is not eligible to be certified for educational benefit payment. All payment approvals are determined by Adjudication at Veterans Affairs regional office. Appeal for payment denial should be directed to the Veterans Affairs regional office. Veterans should contact the Office of Veterans Affairs as soon as possible upon receiving an unsatisfactory grade.

# Academic Information

# ASSOCIATE IN ARTS DEGREE AND ASSOCIATE IN APPLIED SCIENCE DEGREE

Requirements include:

- completion of at least 60 semester hours of credit, depending upon the major selected, with a minimum of a "C" (2.0) overall quality point average;
- a minimum of 15 semester hours of credit above must be completed at Howard Community College. The college, to ensure the quality of its programs, reserves the right to determine which courses students must undertake to successfully complete a specific degree program;
- 3. completion of the requirements of an approved curriculum in the college catalogue; and
- 4. the recommendation of the faculty.

The associate in arts degree includes a 36-credit general education core and the associate in applied science degree includes a 20-credit general education core. The general education core includes courses in writing, literature, fine arts, humanities, mathematics, science, history, social sciences, and interdisciplinary and emerging issues.

# CERTIFICATE OF PROFICIENCY

A certificate of proficiency is awarded to full-time or part-time students who have concentrated their study in a specialized subject matter area and have satisfied the following requirements:

- Completion of the approved curriculum in the college catalogue;
- 2. achievement of a minimum of a "C" (2.0) overall quality point average;
- 3. a minimum of 25 percent of the credit hours must be completed at Howard Community College;
- 4. the recommendation of the faculty.

#### LETTER OF RECOGNITION

A letter of recognition is awarded to full- and parttime students who have completed a designated group of courses, totaling fewer than 12 credits in the following areas: Computer Support Technology, Early Childhood Development, Emergency Medical Services (Emergency Medical Technician-Basic), Legal Office Assistant, Medical Receptionist, Medical Transcriptionist, Office Automation Specialist, Personal Fitness Trainer, Stage Technician, Theatre Performance, and Word Processing Specialist. For more information see the appropriate division office.

# PLACEMENT TESTING AND COLLEGE PREPARATORY STUDIES POLICY

Howard Community College's faculty and staff are committed to student success. Research has shown that students with reading, writing, and mathematics skills below the college-level are at great risk of failing college-level coursework. Therefore, the college requires students to take reading, writing, and mathematics placement testing in order to place them in courses appropriate to their skill level.

# Mandatory Placement Testing Policies

- 1. Students planning to enroll in English or math courses or in courses requiring English or math prerequisites must take placement tests unless they qualify for an exemption (see #3 and #4).
- 2. All students in learning programs requiring English or mathematics must take placement tests by the

time they have completed 12 credits unless they qualify for an exemption (see #4). After completion of 12 credits, students will not be permitted to register until appropriate placement tests have been taken.

- Placement test exemption policies for non-degree seeking students include two options:
  - a. Those seeking to enroll in credit courses that have English or math prerequisites may enroll as CustomClass (credit-free) students. (See page 28 or refer to the Schedule of Classes for more information about CustomClass):
  - b. Upon completion of 12 credits, non-degree seekers must consult with an advisor for consent to register for additional coursework without placement testing. Consent will be based on academic goals and past performance.
- 4. Placement test exemptions may be made based on prior college-level math and/or English coursework as demonstrated by college transcripts or grade reports or score reports from appropriate national examinations (i.e., SAT, ACT, AP CLEP). The entire English placement test may be waived for students with an SAT verbal score of 550 or higher. The reading portion of the English test may be waived for students with an ACT reading subtest score of 21 or higher; the writing portion may be waived for students with an ACT English subtest score of 21 or higher. Students scoring 21 or above on both the English subtest and the Reading subtest of the ACT place directly into ENGL-102. The basic math placement test is not required for students with an SAT math score of 550 or higher or an ACT math subtest score of 21 or higher. These SAT and ACT scores result in placement into MATH-122, 124, 127, 128, 131 or 138. However, students seeking a higher course placement must take advanced math placement tests.

# Mandatory College Preparatory Studies

Students who require college preparatory coursework must enroll in the appropriate course(s). Enrollment in college preparatory courses must be continued each semester until the required sequence is completed.

#### DISTANCE LEARNING

Howard Community College delivers its academic programs in a variety of ways so students can choose to take courses from their homes or offices, reduce or eliminate the need to physically come to campus, or accelerate their course completion. Distance learning courses are either offered online using the Internet, through telecourses which combine lessons aired on television and sessions with faculty, or in the interactive classroom which allows HCC students to share their educational experience with students and faculty at a completely different site.

All distance learning courses, no matter the delivery method, meet the same objectives as the on-site course, are as academically rigorous, and transfer to other institutions. HCC recognizes that providing distance learning opportunities makes it possible for even more people to receive a quality education. Each semester there is an increase in the HCC courses offered at a distance. Check the schedule of classes for a complete listing of the current semester's offerings. For more information, click on the Distance Learning hot spot on the HCC homepage at http://www.howardcc.edu.

# **Distance Learning Degrees**

Students can complete the entire Associate in Arts degree in Liberal Arts, General Studies, and Business Administration online. More information and a complete listing of our online courses can be viewed at http://www.howardcc.edu/online. Students can complete the entire Associate in Arts degree in Liberal Arts, General Studies, and Business Administration online or through a combination of telecourses, online, and interactive TV courses.

#### Online Courses

Online courses allow students an opportunity to take classes from home, the office, or wherever they have access to a computer. Students interact with the instructor and other students via the Internet using email, online discussions and chat groups. They can do classwork at their own pace using Internet technology and other tools. Online chat is an integral part of many of our online courses giving students a real-time opportunity to exchange ideas and a sense of being part of a

class. Most instructors will provide students with a variety of times to join a chat group, and transcripts of online discussions can be saved and printed.

Students should be familiar with e-mail and accessing the Internet. Also, students must have access to the necessary computer technology, typically a Windows 95 or above PC or a Macintosh with at least a 14.4 modem and an Internet provider and WEB browser. Usually students find that their computer skills increase dramatically over the course of a semester.

### CampusWeb Courses

CampusWeb courses make significant use of the Internet and online resources in addressing the course objectives. Because so many of the course transactions are conducted online, the amount of on-campus class meeting time is half that of the traditional on-campus version of the course.

### **CREDIT FOR PRIOR LEARNING**

Howard Community College believes that learning is a lifelong process and is acquired in many different ways. In addition to the traditional classroom setting, mastery of college-level knowledge and skills may occur as a result of nontraditional learning experiences such as employment, military training and experience, noncollegiate training programs, advanced high school courses, and self-development.

Up to seventy-five percent (generally 45 credits) of an associate degree, or fifty percent of a certificate, may be granted for prior learning. In accordance with state law, no more than 30 credits may be granted in most programs, for non-traditional learning; of these, a maximum of 15 credits may be granted for portfolio, institutional exams or a combination thereof.

Credit age limitations apply for the nursing and cardiovascular technology programs. Clinical coursework is generally not accepted if completed more than three years ago. Science coursework for these programs is generally not accepted if completed more than ten years ago. While age limitations do not apply to coursework in other programs, it is each student's responsibility to ensure that they have adequate prerequisite knowledge to be successful in their program of study. Therefore, students are strongly advised to retake or

otherwise review prior prerequisite coursework whenever necessary.

To be awarded transfer credits, students must have a declared major. Official transcripts, along with an Official Transcript Evaluation Request Form, must be submitted to the Office of Admissions and Advising. (The fee is \$15 for a single learning program; \$25 for multiple learning programs.) When students change their major, a new transcript evaluation must be done. It is the student's responsibility to officially request that this occurs.

# **Traditional Prior Learning**

COLLEGE AND UNIVERSITY CREDIT-Credit may be granted for coursework completed at accredited colleges and universities. Transfer courses must apply to students' learning programs. A grade of "C" or higher is required for any coursework which is prerequisite to clinical courses in the Nursing, Cardiovascular Technology, and Emergency Medical Services programs. The college awards credit for other coursework completed with a grade of "D." However, it is imperative that students understand that, while "D" grades may satisfy general education requirements at transfer institutions, they are unlikely to satisfy specific course requirements directly related to a student's major.

FOREIGN COLLEGE AND UNIVERSITY CREDIT-Howard Community College's Office of Admissions and Advising generally does not evaluate foreign transcripts. Students seeking credit for coursework completed at foreign colleges and universities must have their transcripts evaluated by an accredited foreign transcript evaluation service, such as the World Education Service. Credit may be granted for foreign coursework based upon the results of such evaluations as well as the same procedures which apply to coursework completed at U.S. colleges and universities. Additional information is available in the Office of Admissions and Advising.

# **Nontraditional Prior Learning**

Nontraditional learning is any college-level learning which takes place outside the college classroom. State law limits the number of credits which can be awarded for nontraditional learning to thirty for both two-year and four-year colleges and universities. The college awards

applicable credits earned through the following nontraditional methods:

NONCOLLEGIATE PROGRAMS-Credit may be granted for educational programs which apply to students' learning programs and have been successfully completed at noncollegiate organizations such as government agencies, corporations and businesses, trade and technical schools, and others. Noncollegiate courses will be evaluated according to The National Guide to Educational Credit for Training Programs (ACE) or awarded based upon articulation agreements with noncollegiate organizations or agencies. Official transcripts, along with an Official Transcript Evaluation Request Form, must be submitted to the Office of Admissions and Advising.

MILITARY EDUCATION AND TRAINING-Credit may be granted for a variety of formal military, vocational, and educational programs based upon a student's declared learning program at Howard Community College. Military programs must be described with credit recommendations in the American Council of Education's (ACE) "Guide to the Evaluation of Educational Experience in the Armed Services." Official Community College of the Air Force, AARTS, DD214, DD295, or other military transcripts along with an Official Transcript Evaluation Request Form, must be submitted to the Office of Admissions and Advising.

PORTFOLIO ASSESSMENT-Credit for prior learning acquired through employment, self-study, volunteer, civic, or other activities may be awarded through the portfolio assessment option. To earn credit through this method, students must enroll in a course specifically designed to assist in the development of a portfolio summarizing prior experiential learning. In COOP-160: Portfolio Development, students learn to document previous learning in a format that enables faculty to assess eligibility for academic credit. Students must demonstrate that prior learning and experience have resulted in the acquisition of college-level competencies and skills directly related to courses in their learning programs. Students have eighteen months to complete their assessment of prior learning through Portfolio Assessment. Specific prerequisites are necessary to participate in this program. For most programs, a maximum of 15 credits may be earned through this option. Further information may be obtained by contacting Dr. Peggy Walton, English/Foreign Language Division.

CREDIT BY EXAMINATION-Students may be awarded credit through national standardized or HCC institutional testing programs. Howard Community College has specific policies for all testing programs for which it awards credits based upon scores, other credits earned, and students' learning programs. Credit is generally not awarded for institutional exams taken at other colleges and universities.

Students must submit official score transcripts, declare a major, and submit an official request for a transcript evaluation to receive credit for national examination programs. Information regarding required scores and credits awarded may be obtained by contacting the Office of Admissions and Advising.

**NATIONAL EXAMINATIONS**—The national examination programs for which the college awards credit are:

Advanced Placement (AP) Exams—These are subject-matter exams sponsored by the Educational Testing Service and generally administered through high schools at the culmination of Advanced Placement course offerings. Further information can be obtained by contacting high school guidance offices or the Educational Testing Service, Princeton, New Jersey 08540. Credit is generally awarded for scores of 3, 4 or 5.

College-Level Examination Program (CLEP)—This is a national credit-by-examination program providing individuals of all ages and backgrounds the opportunity to receive credit for college-level achievement acquired in a wide variety of ways. General and subject examinations are available in many different areas. Howard Community College administers CLEP examinations to current and prospective students on scheduled dates throughout the year. Additional information regarding CLEP can be obtained by contacting the Office of Admissions and Advising or the College Entrance Examination Board, Attention: CLEP, Princeton, New Jersey, 08540.

More information about AP and CLEP exams may be obtained at the following e-mail address: www.collegeboard.org

**INSTITUTIONAL EXAMINATIONS**—Institutional exams are offered at HCC for selected courses:

**Proficiency Exams**—These exams are taken **prior** to course enrollment when students believe they have mastery of course skills and objectives. Successful test performance results in course credits and appears on transcripts as proficiency credit. Proficiency exams cannot be retaken and cannot be taken by students previously unsuccessful in courses for which they are seeking credit. Students must be admitted to the college prior to taking proficiency exams. A fee equal to 50 percent of the current in-county tuition for the course will be charged for each proficiency examination. Proficiency exams must be taken within 30 calendar days after fee payment; students not taking exams within this 30-day limit will be notified that they have not passed.

Challenge Exams—These exams are taken after enrolling in courses when students believe they have acquired course skills and objectives. Successful test performance results in the award of course credit which, along with the grade earned, appears on a student's transcript. A challenge exam may only be attempted once during a course. If the exam does not result in a passing grade, the student remains in the course. There is no additional cost for challenge exams beyond course tuition and fees.

Students must contact appropriate faculty or division chairperson to arrange proficiency and challenge exams. Lists of proficiency and challenge exams are available in the Office of Admissions and Advising and in division offices.

#### INTERNATIONAL BACCALAUREATE EXAM—

Students completing subject area exams with a score of 3, 4 or 5, generally receive academic credit through the International Baccalaureate Prgram. For more information contact the Office of Admissions and Advising or the International Baccalaureate Program, North American and Carribbean Region, 200 Madison Avenue, Suite 2301 New York, New York 10016. For more information e-mail at infor@ibo.org.

NURSING MOBILITY PROFILE EXAM—Howard Community College administers the Nursing Mobility

Profile I Exam. This exam is produced by the National League of Nursing and is designed to facilite LPN-to-RN career mobility. The exam is one option used by the college to assess prior learning and experience in the nursing field and to assist the college with the award of clinical nursing transfer credit and advanced standing placement decisions. Further information regarding the Nursing Mobility Profile Exam may be obtained through the Office of Admissions and Advising.

HIGH SCHOOL ARTICULATION PROGRAMS—In specific circumstances, Howard County high school students may receive credit for coursework articulated with Howard Community College. Such agreements exist for selected courses only and generally in career-related programs. They do not include Advanced Placement coursework for which separate procedures apply (see page 24). Receiving credit for such coursework involves the submission of the Articulated Credit Form completed by designated high school personnel to the Office of Admissions and Advising. Further information is available through high school guidance ofices or the college's Office of Admissions and Advising.

# HONORS AND ACADEMIC RECOGNITION

# **Honors Program**

The Honors Program at Howard Community College is offered to students seeking educational and intellectual challenges that go beyond standard coursework. In honors courses the student can delve into some of the major issues and developments of our society. Honors sections are distinguished from regular courses by higher expectations and more rigorous qualitative attention to critical thinking, writing and/or oral intensive components, participatory learning, and the use of primary as well as scholarly secondary source materials in an original applied course project(s).

Current HCC students can gain entry into the honors track if they have completed 12 credits of 100 level courses or above with a 3.0 GPA. One of the courses must be ENGL-101 or placement into ENGL-102. Students may also be eligible if they have a 3.0 high school GPA and a combined SAT score of 1000 or

higher. A semester probationary period will determine continued eligibility should the student's cumulative GPA drop below 3.0 in any semester.

Entry into an individual honors course by a non-honors track participant will be by the consent of the instructor.

Honors classes have limited enrollments. The college keeps the class size moderate so that there can be maximum contact between the instructor and the students. The college encourages a mix of students. Adult students as well as recent high school graduates are invited to apply.

Students who successfully complete an honors course with a grade of A or B will have the honors designation noted on their transcript. Students who successfully complete a minimum of 15 credits of honors coursework will receive a Letter of Recognition in addition to having their transcripts show the honors courses.

Students may not audit honors courses.

### **James W. Rouse Scholars Program**

This selective admissions honors program is for incoming high school seniors. For further details, see page 33.

# Summer Scholars Program for High School Students

This selective admissions program is open only to high school sophomores, juniors, and seniors. For further details, see page 30.

#### Dean's List

Students who have carried and maintained at least 12 semester hours with a semester grade point average of 3.5 or better are eligible for nomination to the Dean's List. Students who qualify for the Dean's List must not have received an F, L, or W grade. Students who have met the qualifications will be recognized as superior students by the vice president of academic affairs, and their names will be published on the Dean's List each semester.

#### Dean's List for Part-time Students

Part-time students who have accumulated 12 or more semester hours with a semester grade point average of 3.5 are eligible for nomination to the dean's list of part-time students. To qualify for the list students must have completed a minimum of six credits in the semester under consideration. Furthermore, students who qualify for the list must not have received an F, L, or W grade. Students who qualify for this list will be recognized as superior students by the college, and their names will be published on the List of Distinguished Students.

# **Honor Society**

Alpha Alpha Sigma is the HCC chapter of PHI THETA KAPPA, the national honor society of two-year colleges. To be invited to join, students must meet the following criteria during a spring or fall semester: accumulate at least 12 credits in 100- and 200-level courses with no F, L, or W grade and have at least a 3.5 cumulative GPA in those courses. Induction celebrations are held during both the fall and spring semesters. Phi Theta Kappa students who enroll in honors courses are eligible for a limited number of scholarships.

#### **Graduation with Honors**

Students who have maintained a cumulative grade point average of 3.5 or above will be graduated with honors. Those students who have a grade point average of 3.75 or above will be graduated with high honors.

# **ACADEMIC PROCEDURES**

# Learning Outcomes Assessment and Accountability

Howard Community College is committed to the philosophy of educational accountability. In order to determine that students are attaining the knowledge and skills appropriate to various courses and programs, regular and planned assessment activities occur.

The assessment activities may take diverse forms including standardized assessments, placement tests, faculty-developed evaluations, focus sessions, and surveys. The college believes that such input is vital to its responsibility to maintain quality instruction. Therefore, class time may be used at times for these activities and it is expected that students will participate in the processes when asked. Confidentiality of responses is en-

sured and individual scores are not reported. Entering freshmen and graduating students are required to take the Academic Profile.

# **Confidentiality of Student Records**

A student's record at the college is confidential and includes only information relevant to the educational process. The policy and procedures concerning the release and confidentiality of student records are in compliance with the Family Educational Rights and Privacy Act of 1974. Questions may be referred to the Records and Registration Office.

# Student Academic Complaint Procedures

Students who have academic complaints (including a specific academic complaint involving a faculty member) that remains unresolved through informal means, may enter a formal process of problem resolution. The Student Academic Complaint Procedures and the appropriate form may be obtained from the division offices, the counseling center and the office of evening services. An academic complaint is defined as issues related to classroom instruction or grade disputes (including late penalties, acceptance or non-acceptance of late assignments and incomplete grades). The student and instructor are encouraged to seek resolution informally before filing an academic complaint. Students wishing to initiate a formal academic complaint must submit an academic complaint form to the appropriate division chair by the end of the seventh week of the next full semester.

# **Grading and Attendance Policy** for Courses

The method(s) for evaluation and grading within a course will be clearly stated in the course syllabus. Evaluation procedures will be objective and appropriately related to the course's objectives and content.

Howard Community College does not have a college-wide attendance policy; however, regular class attendance is one of the most important responsibilities of the student. Each instructor determines the requirements for attendance, which in many cases will count toward the final grade. Attendance requirements will be

clearly spelled out in the course syllabus and discussed by the instructor.

#### **Graduation Petitions**

Students who anticipate completing the requirements for an AA degree or certificate are responsible for filing a graduation petition with the Office of Records and Registration and for paying the graduation fee (currently \$25 for each degree or certificate). The petition includes an audit of your completion of degree requirements. Therefore, the petition must be signed by an advisor. The deadlines for submitting graduation petitions are: May graduation—March 15; Summer I graduation—April 15; Summer II graduation—May 15; December graduation—October 15.

To be awarded a degree or certificate from Howard Community College, students must:

- Achieve a minimum of 2.0 or greater GPA for all coursework taken at HCC.
- 2. Complete all the requirements of an approved curriculum in the college catalogue.
- 3. Be in good academic and financial standing with the college.
- 4. Have their graduation petitions reviewed and cleared by the Records and Registration Office.

Students who do not complete degree or certificate requirements in the semester in which they first applied for graduation may petition for graduation at a later date.

A commencement ceremony is held in May each year. Students who completed degree or certificate requirements the previous Summer II or Fall, as well as those who complete their requirements in Spring or Summer I of the current year, are invited to participate.

Graduation candidates for certain years will be required to take a forty-minute Academic Profile Outcome Assessment Examination prior to the date of graduation. The scores on the exam will be used for statistical purposes measuring student progress. The scores will NOT be a part of a student's academic record. The exams will be given in the HCC Test Center.

# Academic Persistence and Catalogue Requirements

Students attending Howard Community College will follow the catalogue requirements in effect during the

semester they enrolled, or any catalogue thereafter, provided they have maintained continuous enrollment. Students may take up to two calendar years off and still graduate under the prior catalogue requirements provided they complete a course in the last semester attended and complete a course in the semester they return. Students who change their learning programs must follow the curriculum requirements of the cataloque in place when the change is made. To officially change learning programs, students must complete a Change of Learning Program Form which must be signed by an advisor and submitted to the Office of Admissions and Advising. Students who have had credits previously transferred into the college must also officially request a transcript re-evaluation based upon their new learning program.

# **Student Address Change**

To officially change a name, address, telephone number, or e-mail address, students must complete a Change of Information Form and submit it to the Office of Admissions and Advising or the Office of Records and Registration. Proof of residency is required for address changes.

#### Withdrawal

Students who register for a course and do not report to class within the first three weeks will be given the mark of "NA" (indicating never attended) for the course and will not receive any refund of tuition.

A student who wishes to officially withdraw from a course should complete a withdrawal form in the Registration Office. This form should be submitted as soon. as the student ceases attendance but must be done between the third and tenth week of classes during a regular semester. The schedule of classes publication will list each semester's withdrawal deadline date. Students withdrawing officially from a class will receive a grade of "W." Students who do not withdraw by the posted deadline must accept the final grade earned for the course. The "W" will appear on the student's transcript and show as hours attempted but will not be calculated into the student's GPA. After attempting twelve (12) cumulative credits, students will be placed on academic probation if they withdraw from more than 50% of credits.

To be eligible for readmission to the nursing education program, each student who withdraws from a nursing course or does not continue into the next nursing course must schedule an exit interview with the director of nursing, or nursing faculty member. The purposes of the interview are for counseling and guidance and for completing the appropriate college form. Readmission to the Nursing Program is contingent upon specified criteria and available space. Readmit students may have to complete curricular strategies and demonstrate competencies. A student may reenter the Nursing Program one time if the student failed a nursing course or had a failing average at the time of withdrawal and applies to reenter within three years. A student who withdraws with a passing average may reenter once at the first year level and once at the second year level. (See Nursing Student Handbook for specific details regarding criteria for readmission.).

# REGISTRATION AND ENROLLMENT

# **Auditing Courses**

An audit designation must be specified during registration on the course schedule form. No credit or grade will be given. Audit status can ONLY be converted to credit status and credit status can ONLY be converted to audit status during the first three weeks of a major semester. Students converting from audit status to credit status must have the written approval of the instructor or the appropriate division chair. Students may convert their status only once during that period. Audited courses do not count as part of the semester's credit hour load nor as credit towards graduation unless repeated for credit. In addition, audited courses will appear on the transcript as an N.

#### CustomClass

"CustomClass" is an enrollment option which allows students to enroll in credit classes without having been admitted as credit students or meeting the normal prerequisites. CustomClass students select this option at the time of registration and CANNOT later change to credit or audit status. They will be exposed to the material and instruction in a credit course but will not receive grades

or transcripts for the course. Some courses may be eligible for CEUs (continuing education units) or certifications from the Continuing Education Division.

#### **Cancellation of Courses**

The college may cancel any course due to insufficient registration.

#### **Credits**

One semester hour of credit is generally assigned for each lecture period or laboratory session. Lecture periods are 55 minutes and laboratory sessions are two to three hours in length per credit.

#### Semester Schedule

A full-time student schedule for either the fall or spring semester generally consists of 12 to 18 semester hours. Schedules in excess of 18 semester hours must be approved by a counselor or academic advisor.

# **ACADEMIC STANDARDS**

It is expected that students will make satisfactory progress each semester they are enrolled. At the end of the Fall and Spring semesters, the progress of each student will be reviewed against the standard of satisfactory progress as stated below. Financial aid recipients are subject to additional standards of academic progress as required by financial aid regulations; see page 13 for further information.

Satisfactory performance at Howard Community College means:

- a. achieving a minimum semester quality point average (QPA) of 2.0; and
- b. successfully completing at least 50% of the credits attempted each semester.

#### **Academic Probation**

After attempting 12 cumulative credits and having enrolled for a minimum of 6 credits in a given semester, a student will be placed on academic probation if his or her academic performance falls into either category at the completion of that semester:

The student quality point average (QPA) falls below 2.0; or

b. The student does not successfully complete at least 50% of the credits attempted. Grades of "F" and "W" are considered non-successful completion of credits. Grades of I, N and L are not considered as attempted credits for Probation.

When placed on academic probation, the student must meet the requirements for minimum satisfactory performance in the next major semester or the student will be suspended. If the student meets those standards, the student will be off probation.

Participants in the selective admissions Rouse Scholars Program will be put on probation if their cumulative GPA falls below 2.5. The student has a semester to recover his or her GPA. During this probation period there will be no diminishing of support or standing. A student failing to re-establish his or her GPA within the next semester will no longer be a Rouse Scholar. This situation does not affect his or her standing, enrollment or non-program scholarships and aid at Howard Community College.

# **Academic Suspension**

The student on probation who does not meet the minimum standard of satisfactory performance the next major semester in which he or she is enrolled will be placed on academic suspension. When placed on suspension, the student may not attend HCC during the next major semester. Students have the right to appeal academic suspension.

SUSPENSION APPEAL—There may be mitigating circumstances contributing to a student being suspended; therefore, the student may appeal his or her suspension. Details of the appeal process are included in the letter notifying the student of his or her suspension. If the student's appeal is granted, the student will remain on academic probation and the course schedule may be restricted. Additionally, if the student does not meet satisfactory performance standards, he or she will be placed on suspension.

READMISSION AFTER SUSPENSION—Students who are suspended and have been out for one major semester must contact the Director of Records and Registration. Upon readmission, the student will remain on academic probation, the course schedule may be restricted and the student must meet the satisfactory progress standard as stated above. If satisfactory progress is not met,

L

the student will be suspended. Students have the right to appeal academic suspension. Specific readmission procedures for the nursing program are found under the "Withdrawal" guidelines found on page 28.

#### **GRADING SYSTEM**

Final grades will be issued at the end of each semester. All grades earned will remain on the official transcript.

Letter grades earn quality points according to the following schedule:

<u>Grade</u>	Quality Points Per Credit <u>Hour</u>	<u>Standard</u>
А	4	Mastery of course objectives with outstanding quality of academic achievement
В	3	Mastery of course objectives with high quality of academic achievement
С	2	Mastery of course objectives (developmental courses require a minimum grade of "C")
D	1	Minimum passing grade (does not meet minimum grade required for Nursing, Cardiovascular Technology, and Emergency Medical Services pre- requisites and clinical coursework.)
F	0	Lack of mastery of course objectives
W	None	Withdraw. This grade is given at the time of withdrawal no later than the end of the tenth week of classes.
I	None	Incomplete. A temporary designation generally given only in an emergency situation such as illness which results in the student's inability to complete course objectives. A student must have successfully completed 75% of the course objectives, as determined

by the instructor, for the "I" designation. This designation must be changed to a permanent grade other than W or L within a period of time determined by the instructor at the time the I designation is assigned. Normally the period to complete objectives shall not exceed the end of the seventh week of the next full semester or it will be converted to an F grade. A written agreement by the instructor specifying the necessary objectives and period of time within which they need to be completed shall be sent to the student with a copy to the student's permanent file.

None The L grade is assigned only in developmental courses to students who have not mastered the course objectives due to individual learning characteristics. In order to qualify for an L grade, students must work with steady diligence, effort and near perfect attendance, and must show progress on course objectives. Students may be required to seek additional assistance beyond class sessions. The L grade is not computed in the students' grade point averages. Those who receive an L grade must reregister and repeat the developmental course.

N None Audit

The total semester hours earned by a student are equivalent to the total of the credit hours for which a grade of A, B, C, D or F was recorded. A student's quality point average (QPA) is recorded on his or her official transcript. The QPA is calculated as follows:

Total Quality Points Earned
Total Semester Hours Attempted = Quality Point
Average

Grades with the indication of "None" under Quality Points Per Credit Hour in the grade schedule are not used in computing the QPA. Grade records are maintained in the Office of Records and Registration. An official transcript may be obtained for completed work

by writing to the coordinator of records and registration. Students who have not met all of their financial obligations will have transcripts and grades withheld until such obligations are satisfied. If a student repeats a course, the highest grade earned in the course will count toward the quality point average (QPA); however, all attempts and the resulting grades will appear on the transcript.

#### **ACADEMIC HONESTY**

Howard Community College expects academic honesty from its students. Academic honesty is a matter of concern to everyone connected with the college. A clearly and carefully developed policy and set of procedures guides students and faculty members in achieving academic honesty. Communication of these procedures will be accomplished through the following sources:

All catalogues, class schedules, and course descriptions will contain the following statement:

"Academic honesty, as defined in the Student Handbook, is expected of all students."

A statement of policies and procedures will appear in both the Faculty Handbook and the Student Handbook.

#### Definition

Academic honesty means the use of one's own thoughts and materials in the writing of papers, taking of tests, and other classroom related activities. Students intentionally aiding other students in any infraction of the academic honesty policy are considered equally quilty.

Students are expected to give full credit for the borrowing of other's words or ideas. Intentional or unintentional use of another's words or ideas without acknowledging this use constitutes plagiarism.

There are four common forms of plagiarism:

1. The duplication of an author's words without quotation marks and accurate references or footnotes.

- 2. The duplication of an author's words or phrases with footnotes or accurate references, but without quotation marks.
- 3. The use of an author's ideas in paraphrase without accurate references or footnotes.
- 4. Submitting a paper in which exact words are merely rearranged even though footnoted.

**Misrepresentation** is the submission of materials for evaluation that are not the student's own.

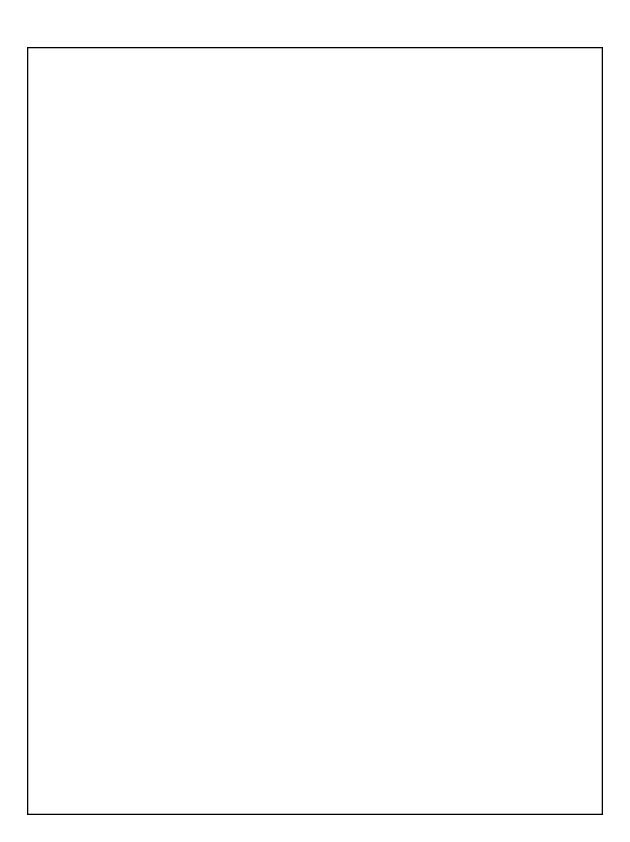
Unauthorized use of notes, copying, using another individual's materials, or prior knowledge of instructional materials during tests, quizzes, or other educational experiences shall be considered a violation of the Academic Honesty Policy.

#### **Penalties**

FIRST INFRACTION-For the first infraction of the Academic Honesty Policy the faculty member shall give the student an F or its equivalent on the paper or examination in question. This action could result in a final grade lower than it otherwise would have been. The appropriate division chairperson concerned will be informed of the infraction in writing and the vice president of student services will notify the student in writing of the consequences and implications of this infraction.

SECOND INFRACTION-A second infraction of academic dishonesty, either in the same course or in another course, will result in an automatic F in the course in which the second infraction incurred. The student will be dropped from the course, and barred from further class participation. The appropriate division chairperson will be informed of the incident in writing and will notify the dean of students. The vice president of student services will notify the registrar that the student is to receive an F grade for the course. The dean of students will meet with the student involved and apprise the student of the implication of this second infraction.

THIRD INFRACTION-A third instance of plagiarism or any behavior involving an infraction of the Academic Honesty Policy will result in disciplinary action as determined by the Student Judicial Process.



# Student Services

#### **ADMISSIONS**

It is the responsibility of the Office of Admissions and Advising to ensure that all students admitted to the college receive the pre-enrollment services necessary to ensure the successful completion of academic, career, and personal goals.

The Admissions and Advising staff advises prospective, newly admitted, transfer, and international students. A special effort is made to prepare students for that most critical first semester of college. In addition to pre-enrollment advising, other services provided by the Office of Admissions and Advising include transcript evaluation and course clearance based on coursework completed at other postsecondary institutions and through the military, and other designated organizations, as well as specific national examination programs (see page 24).

The Admissions and Advising staff welcomes the opportunity to inform students about programs and services which will contribute to the fulfillment of their goals.

# **Programs for High School Students**

The college offers a variety of programs for current and graduating high school students including:

JAMES W. ROUSE SCHOLARS PROGRAM— The James W. Rouse Scholars Program is a selective, challenging honors and leadership program designed for transfer to distinguished four-year colleges and universities at the end of the sophomore year. The program combines academic opportunities, development of leadership skills, projects involving community mentors, and cultural and recreational activities. Rouse Scholars and program faculty and staff work closely with transfer institutions. Scholarships specifically designated for the program are available. Admission to this highly selective program is based on grades, college entrance exam scores, course selection, intellectual interests, extracurricular activities,

recommendations, and other indicators of academic excellence and potential. In certain circumstances, consideration will be given to students for whom traditional indicators of success are not always valid. For further information, contact the Office of Admissions and Advising and high school guidance offices.

SILAS CRAFT COLLEGIANS PROGRAMS-The Silas Craft Collegians Program is designed for recent high school graduates whose past academic performance does not reflect their true potential. The program maximizes academic achievement, graduation, and transfer. Program features include a customized curriculum that prepares students for transfer and for their chosen career, skills assessment and development, academic support, mentoring, and various extracurricular and enrichment activities. Scholarships specifically designated for this program are available. Admissions is selective and is based upon academic potential, motivation and the desire to succeed, and specific English and math skill levels. For further information, contact the Office of Admissions and Advising and high school guidance offices.

FRESHMAN FOCUS PROGRAM—Early preparation is directly related to a successful college career. The Freshman Focus Program is designed specifically for graduating high school seniors who are Howard Community College's incoming freshmen. The program provides the opportunity to be tested, advised, and registered early, prior to the hectic pace and more limited course selection of general registration. Students who take advantage of this program complete the college registration process prior to high school graduation. For further information, contact the Office of Admissions and Advising and high school guidance offices.

SUMMER SCHOLARS PROGRAM FOR HIGH SCHOOL STUDENTS—The Summer Schoolars Program for High School Students offers qualified high school sophomores,

juniors, and seniors the opportunity to get an early start on their college careers. In addition to earning college credit highly transferrable to other colleges and universities, and enjoying credit-free offerings, students can sharpen their academic skills and gain first-hand experience valuable in the college selection process. Admission is based upon grades, test scores, maturity, and teacher and counselor recommendations. Class size is limited and qualified students are admitted on a first-come, first-served basis. The program's enrichment component includes guest speakers and cultural activities. For further information, contact the Office of Admissions and Advising.

EARLY ENTRANCE PROGRAM AND OTHER PROGRAMS FOR HIGH SCHOOL STUDENTS— Enrollment opportunities are available for high school students during the school year under certain circumstances. These opportunities include concurrent, early admission, and summer enrollment. Special enrollment conditions apply based upon State law, Howard County Public School System regulations, and college policies.

The Early Entrance Program facilitates the enrollment of high school students planning to enroll concurrently at the college during the fall and/or spring of their senior year. The program enables students to plan their high school and HCC schedules at the same time and complete all or most procedures, including application, testing, and registration, well in advance of general registration periods. Students must also fulfill public school system requirements necessary to participate. High school juniors also use Early Entrance procedures but may only take classes after high school hours and/or during the summer. For further information, contact the Office of Admissions and Advising and high school guidance offices.

The college reserves the right to grant admission to secondary school students on an individual basis. Further details regarding these programs are described on pages 9-10.

# **NEW STUDENT ORIENTATION**

Most colleges and universities across the nation require participation in New Student Orientation programs because of their proven effectiveness in preparing students for the critical first semester of college. By providing important information about academic policies and procedures, registration options, college services, and student activities, the New Student Orientation Program helps students avoid potential obstacles to the achievement of their goals while enhancing the enjoyment of campus life. Information important to transfer and career preparation is also outlined. Students have the opportunity to meet college faculty and staff, as well as fellow students. Comprehensive New Student Orientation Programs are conducted immediately prior to the Fall and Spring terms. Additionally, specific workshops are offered throughout the entire semester for both new and returning students. Further information is provided to students as part of the enrollment process and through the Office of Student Activities.

# PARENT ORIENTATION PROGRAM

The Parent Orientation Program is a one-day event for families to learn about the services and programs offered at Howard Community College. This program also allows parents the opportunity to meet faculty, administrators, and staff who will become important individuals in their son's or daughter's life. Entire families are encouraged to attend the program as it helps families become part of the HCC community and will answer many of the questions considered regarding college life.

More information pertaining to the Parent Orientation Program will be sent to newly enrolled families in August. For details, contact the Office of Students Activities at 410-772-4896.

# **ADVISING SERVICES**

# Academic Advising

One of the college's most important responsibilities is to provide comprehensive academic advising services. Students are responsible for fulfilling the requirements of their learning program for the catalogue year which applies to them. Therefore, it is also each student's responsibility to meet with an advisor prior to each term and more often, if needed. Advisors provide students with information

and recommendations regarding learning programs, course selection, and transfer preparation. Students in selected majors are assigned to specific academic or faculty advisors as appropriate. Advising is available to students year round through the Office of Admissions and Advising.

#### **Transfer Information and Advising**

The Transfer Center is located in the Office of Admissions and Advising. It provides the following services:

- Transfer advising
- Transfer Center website located at www.howardcc.edu; click on Admissions, then Transfer Center; access general information, current activities, college and university websites, new articulation agreements, and online resources.
- ARTSYS—a computerized transfer system designed to provide guidance to students planning to transfer to Maryland public colleges and universities, as well as several private Maryland institutions.
- College Source—a software program which provides access to college catalogues across the nation.
- CollegeView—a software program of virtual tours of North American campuses.
- Internet—provides access to college, scholarship, financial aid and many related websites.
- Transfer-related publications—guidebooks, catalogues, view books, transfer applications, scholarship materials and others.
- Specialized transfer information for students with specific concerns—including information for international students, students with disabilities and others.

The college hosts a transfer fair during the fall and spring terms. Representatives from a wide variety of private and public universities attend, providing students opportunities to explore and become more informed about available options. In order to ensure a successful transfer to a four-year institution, it is the responsibility of the student to meet with an academic advisor every semester.

# **FINANCIAL AID**

It is the goal of the college that no student should be restricted from attending this institution because of limited financial resources. To meet this goal the college maintains a program of grants, scholarships, loans and part-time employment for eligible students who are accepted and enrolled in the college as certificate or degree-seeking students in good standing. Detailed information regarding financial aid, scholarships and veterans' benefits is located on pages 13-20.

#### CHILD CARE SERVICES

The Children's Learning Center provides child care services for the children of students, faculty and staff, part-time and full-time child care services for children ranging in age from six weeks to four years of age are available. Rates vary depending on the age of the child, part-time or full-time enrollment of the child and the income of the parent. Low-income students may be eligible for subsidies to offset the costs for child care. The center is open Monday through Friday from 7:15 a.m. to 6 p.m.

The Children's Learning Center is also a lab school for students in the Early Childhood Development Program and other programs requiring learning experiences in a child care center.

For further information concerning the Children's Learning Center, contact the Child Care Director at 410-772-4526.

# ACADEMIC SUPPORT AND CAREER SERVICES

# Career and Life Planning Services

Whether deciding on a major, preparing to enter the job market, or considering a career change, career and life planning services are available to students, prospective students, alumni and community members. The college offers a wide range of career and life planning services which help students focus on their values, interests, skills, and personality traits. These services include individualized career counseling, special topic workshops, career assessments, job assistance services, and a career development and decision making course. The Career Center is open to the public and provides a library of job and career materials,

including printed resources, video tapes, and computerized self-assessment and career exploration programs. For further information, contact the Academic Support and Career Services Offices, room L-140 or call 410-772-4840.

# **Cooperative Education/Internships**

Cooperative education (co-ops) and internships are supervised work experiences directly related to a student's learning program and/or career interests. The basic purpose is to integrate classroom theory with work applications. For further information, contact the Academic Support and Career Services Office, room L-140 or call 410-772-4840.

#### Job Assistance

Job assistance is available to students and community members who are interested in pursuing full time, part time, permanent and temporary positions. Available resources include:

- job books listing current openings in the Baltimore-Washington corridor.
- job hunting reference materials featuring books and videos about resume writing, interviewing skills, creative job search techniques, and related topics.
- HCC Jobs Online, job matching database that can be accessed via the internet.

Job assistance services include:

- customized workshops on a wide range of topics as requested by the college community
- job fairs are held each semester and on campus recruiter visits are scheduled regularly
- individual assistance and job search support is provided on an appointment basis.

For further information, contact the Academic Support and Career Services Office, room L-140 or call 410-772-4840.

# **Learning Assistance Center**

The Learning Assistance Center provides tutoring and academic support services to all students enrolled in credit courses who would like to become more successful and efficient learners. The LAC, located inside the library on the second floor of the LRC Building, provides free group tutoring in most courses offered

at the college. Drop-in tutoring services are scheduled and advertised each semester. The LAC conducts workshops on study skills, learning styles, time management, memory building, notetaking, and test-taking. Drop-in help for writing assignments is available in the Write Room, located inside the LAC. Tutoring, writing, and study skills software are available for use on computers.

# **Student Support Services**

Student Support Services is a federally-funded program offering free comprehensive services to eligible students. Eligibility criteria include low-income and/or first generation college (neither parent received a four-year college degree), and/or a documented disability.

The program's goal is to increase the retention and graduation rates of students at the college. The Student Support Services Program provides free, individualized instruction by academic specialists in the areas of math, reading, writing, English as a second language, and study skills. Learning disabilities specialists assist students who have varying learning styles. Free individual tutoring is available in most courses. Personal, academic, financial aid, career, and transfer counseling is available to program students. Advocacy, assistance with accommodations, and equipment are also available for students with disabilities. For further information, call 410-772-4629 or come to room N-200.

# **Services for Students with Disabilities**

Students with disabilities are encouraged to contact the Student Support Services Office upon admission to the college or when contemplating attending the college. This will give the college ample opportunity to respond to any special needs of the student, as well as provide the student an opportunity to see what services are available. Prior to receiving accommodations and services, students must initiate a request with the Student Support Services Office and supply appropriate documentation of a disability. This information is kept confidential unless the student signs a written waiver of release. Services provided to students with documented disabilities include: advocacy, tutoring, interpreters, notetakers, test-taking accommodations, counseling, and academic advising. Equipment such as computers with Kurzwril 3000, text Help! Read and Write Dragon Dic-

tate, Dragon Naturally Speaking and Zoomtext is available for student use along with other assistive and adaptive technology, closed circuit TV, tape recorders, listening devices, magnifiers and scanning/reading pens. Students in need of sign language interpreters are encouraged to contact the Student Support Services Office at least two weeks prior to the start of classes. For further information, call 410-772-4822 V/TDD or come to room N-200.

# **Vocational Support Team**

The Vocational Support Services Team (VSST) Program is designed for students in vocational/career programs who are having academic difficulties or who have disabilities. The VSST Program provides free small group and individual tutoring in vocational courses, such as nursing, accounting, and electronics. Career Counseling is available from a Career Specialist located in Career Services, room L-140. Group test reviews for vocational courses, and study skills and test-taking workshops are also available. The program assists students with disabilities majoring in vocational/career programs in arranging accommodations and specialized equipment.

#### **Retention Services**

Retention services provides structured assistance that supports students' academic persistence and success. Services include diagnostic, experiential, co-curricular, learning community involvement, and peer mentoring. The development of comprehensive action plans, interactional monitoring, assessment follow-up and skill reinforcement complements the process for enhanced student performance. For further information, call 410-772-4840.

#### Career Links

The Career Links program assists Howard County low-income single parents, displaced homemakers and single pregnant women to become economically self-sufficient. The goals of the program are to develop marketable work skills and learn effective job search skills

Career Links staff will help participants determine their goals and decide on the type of work they would like to do based on their interests and past experiences. If appropriate, the staff will help participants plan a program of study, assist with the application for college admission and financial aid, as well as facilitate the registration process. Information on resume writing, interviewing skills, the job search process, and the hidden job market is provided. The staff will also assist program participants with concerns that interfere with job or school activities. Staff members can make referrals to a wide variety of community services. The Career Links program assists with any difficulty participants may encounter on their way to economic self-sufficiency.

Low-income single parents, displaced homemakers, or single pregnant women residing in Howard County should contact the Academic Support and Career Services Office for further information and to attend a Career Links program orientation. For further information, call 410-772-4954.

# **Personal Counseling**

Counseling and crisis intervention are available for students experiencing personal, social or adjustment concerns relating to college. These services are provided by the Academic Support and Career Services Office. A personal counselor is available for appointments. To schedule an appointment come to the Career Services Office, L-140 or call 410-772-4840.

# **TEST CENTER**

The Test Center provides centralized testing services to the college community. Career and academic make-up exams, as well as placement assessments are administered in the Center. The Center also provides accommodations for students with special needs. Placement testing is arranged by contacting the Office of Admissions and Advising. Career testing is arranged through the Academic Support and Career Services Office. Academic make-up testing is arranged by contacting instructors. The college is an Authorized Prometric Testing Center (APTC) and administers Novell, Microsoft and Autocad certification testing on a daily basis. The Test Center is an Authorized Test Center (ATC) for Microsoft Office User Specialist (MOUS) exams. Contact the Test Center for more information. The Test Center also administers CLEP (College-Level Examination Program) testing on selected dates to current and prospective students.

The Test Center's schedule is published each semester and is available at various college locations.

Test Center information is available at http://www.howardcc.edu/academic/testing.htm.

#### STUDENT LIFE

"Student Life" is comprised of the Office of Student Activities, The Student Government Association (SGA), The Student Program Board (SPB), Student Newspaper (The HCC Times), Gameroom, Clubs and Leadership Development. Each area provides a distinct service and opportunity to HCC students which complement the classroom through social, cultural, experimental and leadership experiences. Activities are planned based on student input and participation. Any student who has the desire is strongly encouraged to "get involved" with Student Activities as a leader, participant, or volunteer to ensure that these programs and events are reflective of the interests of the student body.

Student Activities also arranges for several "off campus" trips such as Broadway plays, amusement parks, sports events, museums, and student leadership conferences.

All Student Activities programs are funded by student generated fees and fall under the auspices of the Vice President of Student Services.

Location: Second floor of the Student Activities Center (SA 201).

#### **Student Government Association**

The Student Government Association (SGA) allows for student involvement in the development and administration of college policies and serves as the official voice of the student body. The SGA is made up of SGA president, his/her officers and general membership. Working with the student life team, SGA is responsible for designating student funds to college clubs and organizations as well as selecting specific themes and issues for programs brought to the college by the student body. SGA members also play a significant role in representing the student body on various college and statewide committees. All students are invited and encouraged to join and participate. For more information on the SGA structure and how to get involved, call or stop by the Student Activities or Student Government offices.

Location: Second floor of Student Activities Center (SA 201B).

# **Student Program Board**

The Student Program Board (SPB) is responsible for selecting, planning and implementing a diverse offering of social and educational activities for all HCC students. This board is overseen by the SPB chairperson and comprised of full and part-time students. Students wishing to serve on this board are invited to join by talking with the SPB chairperson (SA 201A) or contacting the Assistant Director of Student Life (SA 201). Activities include, but are not limited to dances, concerts, lectures, films, cultural arts and special events. SPB also offers discount tickets to local movie theatres, the Maryland Renaissance Festival and other similar events.

Location: Second floor of the Student Activities Center (SA 201A).

#### The Times

The student newspaper is published monthly by students for the college community. The editor and staff cooperate with the many different departments on campus to keep the school population informed about school events, resources and club activities.

The paper needs student participation and wishes to encourage any student having an interest in working on the newspaper staff to please contact the paper's editor (SA 201C) or a Student Activities staff member. Opportunities exist for experiences in photography, desktop publishing, layout and design, advertising, creative writing and reporting. Email address: newspaper@howardcc.edu

Location: Second floor of the Student Activities Center (SA 201C).

#### The Game Room

The Gameroom is equipped with a widescreen TV, pool table, table tennis, air hockey, computerized games, and electronic videomachines. A variety of tournaments are sponsored each semester with prizes and trophies. Board games and tables are also provided for your enjoyment. See the Gameroom Supervisor or stop by the Student Activities office.

Hours: Monday through Thursday 10 a.m.-7 p.m., Friday 10 a.m.-3 p.m.

Location: First floor of the Student Activities Center (SA 101)

#### Clubs

Clubs are formed by students who have a common interest and wish to explore topics and issues that relate to the subject; sometimes sharing information with the college community. A list of existing clubs is available in the Office of Student Activities. If you wish to start a club, you can see your student government president or stop by Student Activities (SA 201).

#### **ATHLETICS**

The intercollegiate athletic program is an integral part of the college's educational objectives. The program is part of a network of services provided to enhance the student life environment. As a member of the Maryland JUCO and Region XX Conferences, the college provides programs of a highly diverse nature to appeal to a vast majority of the Howard Community College student body.

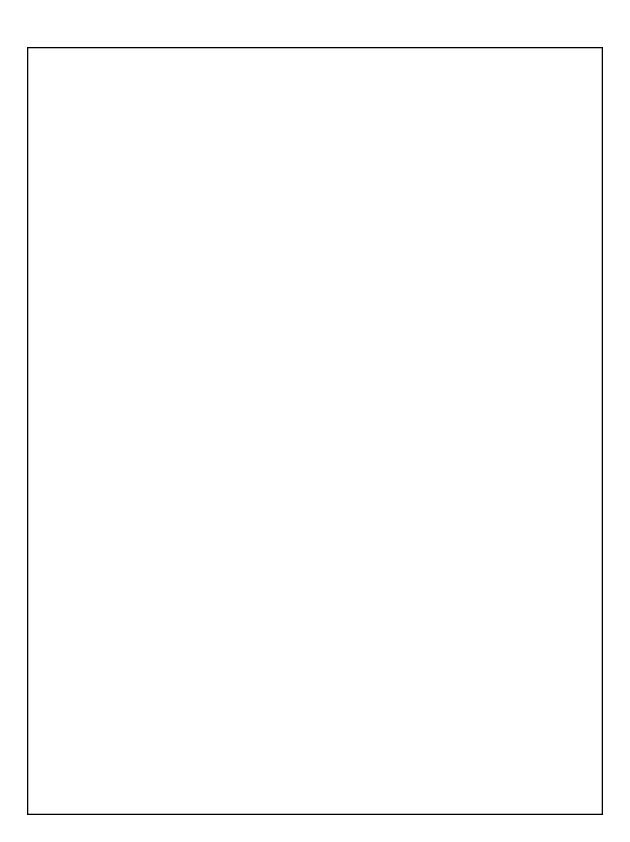
At present, our sports program offers men's and women's soccer, men's and women's basketball, cross country, indoor and outdoor track, women's volleyball and co-ed tennis. Participation in several of these sports requires full-time academic enrollment, where others have a minimal requirement of part-time enrollment. For further information, contact a coach or staff member in the PE facility.

# Equity in Athletics Disclosure Act (EADA)

HCC is a Division III school (Division II in Men's Basketball) and a member of the Maryland Juco Athletic Conference. The college does not offer ANY athletically related aid nor any other assistance relative specifically to student athletes. The athletic program is funded through a portion of student consolidated fees (10% of tuition). A full disclosure of gender participation, expenditures and other resources provided by the college is available in the main office in the PE building and in the Office of Student Activities.

#### **Intramurals**

The intramurals program is part of the network of services provided to meet the leisure time needs of students. The college provides programs with the intent to appeal to a majority of the Howard Community College population. This program provides recreational sports at a lower level of intensity. In the past, basketball, bowling, softball, tennis and volleyball have been offered. All of these are planned and provided based on student interest and participation. All students who have the desire to play should contact a member of the PE staff in the PE facility or a Student Government Association representative.



# Student Transfer Policies

Revised July 1, 1996

Policies of the Maryland Higher Education Commission on Academic Regulations. General Education Requirements, and Transfer of Undergraduates

- I. Scope and Applicability.
  This chapter applies only to public institutions of higher education.
- II. Definitions.
  - A. In this chapter, the following terms have the meanings indicated.
  - B. Terms Defined.
    - (1) "A.A. degree" means the Associate of Arts degree.
    - (2) "A.A.S. degree" means the Associate of Applied Sciences degree.
    - (3) "Arts" means courses that examine aesthetics and the development of the aesthetic form and explore the relationship between theory and practice. Courses in this area may include fine arts, performing and studio arts, appreciation of the arts, and history of the arts.
    - (4) "A.S. degree" means the Associate of Sciences degree.
    - (5) "Biological and physical sciences" means courses that examine living systems and the physical universe. They introduce students to the variety of methods used to collect, interpret, and apply scientific data, and to an understanding of the relationship between scientific theory and application.
    - (6) "English composition courses" means courses that provide students with communication knowledge and skills appropriate to various writing situations, including intellectual inquiry and academic research.
    - (7) "General education" means the foundation of the higher education curriculum providing a coherent intellectual experience for all students.

- (8) "General education program" means a program that is designed to:
  - (a) Introduce undergraduates to the fundamental knowledge, skills, and values that are essential to the study of academic disciplines;
  - (b) Encourage the pursuit of life-long learning; and
  - (c) Foster the development of educated members of the community and the world.
- (9) "Humanities" means courses that examine the values and cultural heritage that establish the framework for inquiry into the meaning of life. Courses in the humanities may include the language, history, literature, and philosophy of Western and other cultures.
- (10) "Mathematics" means courses that provide students with numerical, analytical, statistical, and problem-solving skills.
- (11) "Native student" means a student whose initial college enrollment was at a given institution of higher education and who has not transferred to another institution of higher education since that initial enrollment.
- (12) "Parallel program" means the program of study or courses at one institution of higher education which has comparable objectives as those at another higher education institution. For example, a transfer program in psychology in a community college is definable as a parallel program to a baccalaureate psychology program at a 4-year institution of higher education.
- (13) "Receiving institution" means the institution of higher education at which a transfer student currently desires to enroll.

- (14) "Recommended transfer program" means a planned program of courses, both general education and courses in the major, taken at a community college, which is applicable to a baccalaureate program at a receiving institution, and ordinarily the first 2 years of the baccalaureate degree.
- (15) "Sending institution" means the institution of higher education of most recent previous enrollment by a transfer student at which transferable academic credit was earned.
- (16) "Social and behavioral sciences" means courses that examine the psychology of individuals and the ways in which individuals, groups, or segments of society behave, function, and influence one another. The courses include, but are not limited to, subjects which focus on:
  - (a) History and cultural diversity;
  - (b) Concepts of groups, work, and political systems;
  - (c) Applications of qualitative and quantitative data to social issues; and
  - (d) Interdependence of individuals, society, and the physical environment.
- (17) "Transfer student" means a student entering an institution for the first time having successfully completed a minimum of 12 semester hours at another institution which is applicable for credit at the institution the student is entering.
- III. General Education Requirements for Public Institutions.
  - A. While public institutions have the autonomy to design their general education program to meet their unique needs and mission, that program shall conform to the definitions and common standards in this chapter. A public institution shall satisfy the general education requirement by:
    - (1) Requiring each program leading to the A.A. or A.S. degree to include not less than 30 and not more than 36 semester hours, and each baccalaureate degree program to include not less than 40 and not more than 46 semester hours of re-

- quired core courses, with the core requiring, at a minimum, course work in each of the following five areas:
- (a) Arts and humanities
- (b) Social and behavioral sciences,
- (c) Biological and physical sciences,
- (d) Mathematics, and
- (e) English composition; or
- (2) Conforming with COMAR 13B.02.02.16D(2)(b)-(c).
- B. Each core course used to satisfy the distribution requirements of §A(1) of this regulation shall carry at least 3 semester hours.
- C. General education programs of public institutions shall require at least:
  - (1) One course in each of two disciplines in arts and humanities;
  - (2) One course in each of two disciplines in social and behavioral sciences;
  - (3) Two science courses, at least one of which shall be a laboratory course;
  - (4) One course in mathematics at or above the level of college algebra; and
  - (5) One course in English composition.
- D. Interdisciplinary and Emerging Issues.
  - (1) In addition to the five required areas in §A of this regulation, a public institution may include up to 8 semester hours in a sixth category that addresses emerging issues that institutions have identified as essential to a full program of general education for their students. These courses may:
    - (a) Be integrated into other general education courses or may be presented as separate courses; and
    - (b) Include courses that:
      - (i) Provide an interdisciplinary examination of issues across the five areas, or
      - (ii) Address other categories of knowledge, skills, and values that lie outside of the five areas.
  - (2) Public institutions may not include the courses in this section in a general education program unless they provide academic content and rigor equivalent to the areas in §A(1) of this regulation.

- E. General education programs leading to the A.A.S. degree shall include at least 20 semester hours from the same course list designated by the sending institution for the A.A. and A.S. degrees. The A.A.S. degree shall include at least one 3-semester-hour course from each of the five areas listed in O3A(1) of this regulation.
- F. A course in a discipline listed in more than one of the areas of general education may be applied only to one area of general education.
- G. A public institution may allow a speech communication or foreign language course to be part of the arts and humanities category.
- H. Composition and literature courses may be placed in the arts and humanities area if literature is included as part of the content of the course.
- Public institutions may not include physical education skills courses as part of the general education requirements.
- J. General education courses shall reflect current scholarship in the discipline and provide reference to theoretical frameworks and methods of inquiry appropriate to academic disciplines.
- K. Courses that are theoretical may include applications, but all applications courses shall include theoretical components if they are to be included as meeting general education requirements.
- L. Public institutions may incorporate knowledge and skills involving the use of quantitative data, effective writing, information retrieval, and information literacy when possible in the general education program.
- M. Notwithstanding §A(1) of this regulation, a public 4-year institution may require 48 semester hours of required core courses if courses upon which the institution's curriculum is based carry 4 semester hours.
- N. Public institutions shall develop systems to ensure that courses approved for inclusion on the list of general education courses are designed and assessed to comply with the requirements of this chapter.

O. A public college or university shall notify all other public degree-granting institutions of its intention to adopt a new lower-division course for general education credit at least six months prior to offering the course for general education credit.

#### IV. Transfer of General Education Credit.

- A. A student transferring to one public institution from another public institution shall receive general education credit for work completed at the student's sending institution as provided by this chapter.
- B. A completed general education program shall transfer without further review or approval by the receiving institution and without the need for a course-by-course match.
- C. Courses that are defined as general education by one institution shall transfer as general education even if the receiving institution does not have that specific course or has not designated that course as general education.
- D. The receiving institution shall give lower-division general education credits to a transferring student who has taken any part of the lower-division general education credits described in Regulation .03 of this chapter at a public institution for any general education courses successfully completed at the sending institution.
- E. Except as provided in Regulation .03L of this chapter, a receiving institution may not require a transfer student who has completed the requisite number of general education credits at any public college or university to take, as a condition of graduation, more than 10-16 additional semester hours of general education and specific courses required of all students at the receiving institution, with the total number not to exceed 46 semester hours. This provision does not relieve students of the obligation to complete specific academic program requirements or course prerequisites required by a receiving institution.
- F. Each sending institution shall designate on or with the student transcript those courses that have met its general education require-

ments, as well as indicate whether the student has completed the general education program.

- G. A.A.S. Degrees
  - (1) While there may be variance in the numbers of hours of general education required for A.A., A.S., and A.A.S. degrees at a given institution, the courses identified as meeting general education requirements for all degrees shall come from the same general education course list and exclude technical or career courses.
  - (2) An A.A.S. student who transfers into a receiving institution with fewer than the total number of general education credits designated by the receiving institution shall complete the difference in credits according to the distribution as designated by the receiving institution. Except as provided in Regulation .03M of this chapter, the total general education credits for baccalaureate degree-granting public receiving institutions may not exceed 46 semester hours.
- H. Student Responsibilities. A student is held:
  - (1) Accountable for the loss of credits that:
    - (a) Result from changes in the student's selection of the major program of study,
    - (b) Were earned for remedial course work, or
    - (c) Exceed the total course credits accepted in transfer as allowed by this chapter; and
  - (2) Responsible for meeting all requirements of the academic program of the receiving institution.
- V. Transfer of Nongeneral Education Program Credit.
  - A. Transfer to Another Public Institution.
    - (1) Credit earned at any public institution in the State is transferable to any other public institution if the:
      - (a) Credit is from a college or university parallel course or program;
      - (b) Grades in the block of courses transferred average 2.0 or higher; and

- (c) Acceptance of the credit is consistent with the policies of the receiving institution governing native students following the same program.
- (2) If a native student's "D" grade in a specific course is acceptable in a program, then a "D" earned by a transfer student in the same course at a sending institution is also acceptable in the program. Conversely, if a native student is required to earn a grade of "C" or better in a required course, the transfer student shall also be required to earn a grade of "C" or better to meet the same requirement.
- B. Credit earned in or transferred from a community college is limited to:
  - the baccalaureate degree program requirement, but may not be more than 70 semester hours; and
  - (2) The first 2 years of the undergraduate education experience.
- C. Nontraditional Credit.
  - (1) The assignment of credit for AP, CLEP, or other nationally recognized standardized examination scores presented by transfer students if determined according to the same standards that apply to native students in the receiving institution, and the assignment shall be consistent with the State minimum requirements.
  - (2) Transfer of credit from the following areas shall be consistent with COMAR 13B.02.02. and shall be evaluated by the receiving institution on a course-by-course basis:
    - (a) Technical courses from career programs:
    - (b) Course credit awarded through articulation agreements with other segments or agencies;
    - (c) Credit awarded for clinical practice or cooperative education experiences; and
    - (d) Credit awarded for life and work experiences.
  - (3) The basis for the awarding of the credit shall be indicated on the student's transcript by the receiving institution.

- (4) The receiving institution shall inform a transfer student of the procedures for validation of course work for which there is no clear equivalency. Examples of validation procedures include ACE recommendations, portfolio assessment, credit through challenge examinations, and satisfactory completion of the next course in sequence in the academic area.
- (5) The receiving baccalaureate degree-granting institution shall use validation procedure when a transferring student successfully completes a course at the lower division level that the receiving institution offers at the upper division level. The validated credits earned for the course shall be substituted for the upper division course.
- D. Program Articulation.
  - (1) Recommended transfer programs shall be developed through consultation between the sending and receiving institutions. A recommended transfer program represents an agreement between the two institutions that allows students aspiring to the baccalaureate degree to plan their programs. These programs constitute freshman/sophomore level course work to be taken at the community college in fulfillment of the receiving institutions's lower division course work requirement.
  - (2) Recommended transfer programs in effect at the time that this regulation takes effect, which conform to this chapter, may be retained.
- VI. Academic Success and General Well-Being of Transfer Students.
  - A. Sending Institutions.
    - (1) Community colleges shall encourage their students to complete the associate degree or to complete 56 hours in a recommended transfer program which includes both general education courses and courses applicable toward the program at the receiving institution.
    - (2) Community college students are encouraged to choose as early as possible the

- institution and program into which they expect to transfer.
- (3) The sending institution shall:
  - (a) Provide to community college students information about the specific transferability of courses at 4-year colleges;
  - (b) Transmit information about transfer students who are capable of honors work or independent study to the receiving institution; and
  - (c) Promptly supply the receiving institution with all the required documents if the student has met all financial and other obligations of the sending institution for transfer.
- B. Receiving Institutions.
  - Admission requirements and curriculum prerequisites shall be stated explicitly in institutional publications.
  - (2) A receiving institution shall admit transfer students from newly established public colleges that are functioning with the approval of the Maryland Higher Education commission on the same basis as applicants from regionally accredited colleges.
  - (3) A receiving institution shall evaluate the transcript of a degree-seeking transfer student as expeditiously as possible, and notify the student of the results not later than mid-semester of the student's first semester of enrollment at the receiving institution, if all official transcripts have been received at least 15 working days before mid-semester. The receiving institution shall inform a student of the courses which are acceptable for transfer credit and the courses which are applicable to the student's intended program of study.
  - (4) A receiving institution shall give a transfer student the option of satisfying institutional graduation requirements that were in effect at the receiving institution at the time the student enrolled as a freshman at the sending institution. In the case of major requirements, a transfer student may

satisfy the major requirements in effect at the time when the student was identifiable as pursuing the recommended transfer program at the sending institution. These conditions are applicable to a student who has been continuously enrolled at the sending institution.

#### VII. Programmatic Currency.

- A. A receiving institution shall provide to the community college current and accurate information on recommended transfer programs and the transferability status of courses. Community college students shall have access to this information.
- B. Recommended transfer programs shall be developed with each community college whenever new baccalaureate programs are approved by the degree-granting institution.
- C. When considering curricular changes, institutions shall notify each other of the proposed changes that might affect transfer students. An appropriate mechanism shall be created to ensure that both 2-year and 4-year public colleges provide input or comments to the institution proposing the change. Sufficient lead time shall be provided to effect the change with minimum disruption. Transfer students are not required to repeat equivalent course work successfully completed at a community college.

#### VIII. Transfer Mediation Committee.

- A. There is a Transfer Mediation Committee, appointed by the Secretary, which is representative of the public 4-year colleges and universities and the community colleges.
- B. Sending and receiving institutions that disagree on the transferability of general education courses as defined by this chapter shall submit their disagreements to the Transfer Mediation Committee. The Transfer Mediation Committee shall address general questions regarding existing or past courses only, not individual student cases, and shall also address questions raised by institutions about the acceptability of new general education courses. As appropriate, the Committee shall consult with faculty on curricular issues.

C. The findings of the Transfer Mediation Committee are considered binding on both parties.

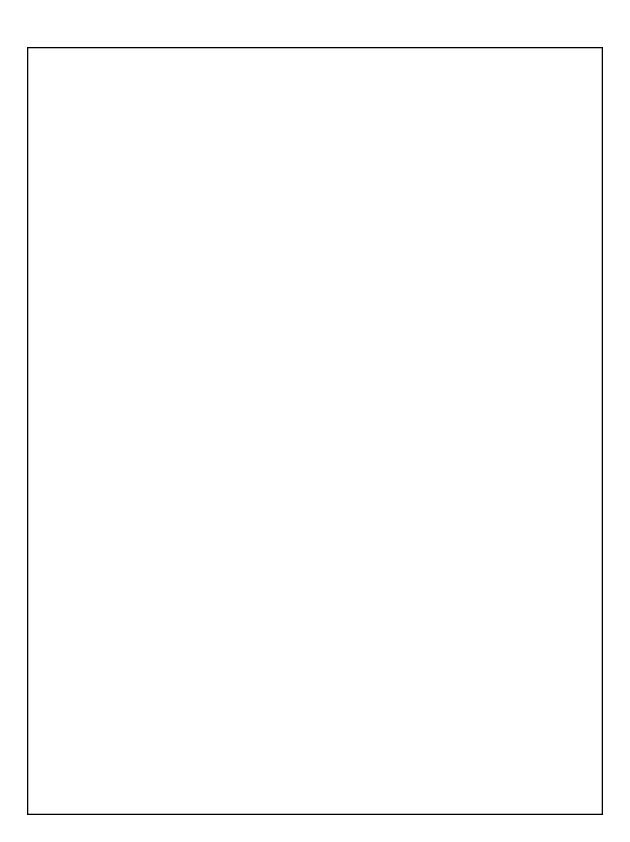
#### IX. Appeal Process.

- A. Notice of Denial of Transfer Credit by a Receiving Institution.
  - (1) Except as provided in §A(2) of this regulation, a receiving institution shall inform a transfer student in writing of the denial of transfer credit not later than mid-semester of the transfer student's first semester, if all official transcripts have been received at least 15 working days before mid-semester.
  - (2) If transcripts are submitted after 15 working days before mid-semester of a student's first semester, the receiving institution shall inform the student of credit denied within 20 working days of receipt of the official transcript.
  - (3) A receiving institution shall include in the notice of denial of transfer credit:
    - (a) A statement of the student's right to appeal; and
    - (b) A notification that the appeal process is available in the institution's catalog.
  - (4) The statement of the student's right to appeal the denial shall include notice of the time limitations in §B of this regulation
- B. A student believing that the receiving institution has denied the student transfer credits in violation of this chapter may initiate an appeal by contacting the receiving institution's transfer coordinator or other responsible official of the receiving institution within 20 working days of receiving notice of the denial of credit.
- C. Response by Receiving Institution.
  - (1) A receiving institution shall:
    - (a) Establish expeditious and simplified procedures governing the appeal of a denial of transfer of credit; and
    - (b) Respond to a student's appeal within 10 working days.

- (2) An institution may either grant or deny an appeal. The institution's reasons for denying the appeal shall be consistent with this chapter and conveyed to the student in written form.
- (3) Unless a student appeals to the sending institution, the writing decision in §C(2) of this regulation constitutes the receiving institution's final decision and is not subject to appeal.
- D. Appeal to Sending Institution.
  - (1) If a student has been denied transfer credit after an appeal to the receiving institution, the student may request the sending institution to intercede on the student's behalf by contacting the transfer coordinator of the sending institution.
  - (2) A student shall make an appeal to the sending institution within 10 working days of having received the decision of the receiving institution.
- E. Consultation Between Sending and Receiving Institutions.
  - (1) Representatives of the two institutions shall have 15 working days to resolve the issues involved in an appeal.
  - (2) As a result of a consultation in this section, the receiving institution may affirm, modify, or reverse its earlier decision.
  - (3) The receiving instituion shall inform a student in writing of the result of the consultation.
  - (4) The decision arising out of a consultation constitutes the final decision of the receiving institution and is not subject to appeal.

#### X. Periodic Review.

- A. Report by Receiving Institution.
  - (1) A receiving institution shall report annually the progress of students who transfer from two-year and four-year institutions within the State to each community college and to the Secretary of the Maryland Higher Education Commission.
  - (2) An annual report shall include ongoing reports on the subsequent academic success of enrolled transfer students, including graduation rates, by major subject areas.
  - (3) A receiving institution shall include in the reports comparable information on the progress of native students.
- B. Transfer Coordinator. A public institution of higher education shall designate a transfer coordinator, who serves as a resource person to transfer students at either the sending or receiving campus. The transfer coordinator is responsible for overseeing the application of the policies and procedures outlined in this chapter and interpreting transfer policies to the individual student and to the institution.
- C. The Maryland Higher Education Commission shall establish a permanent Student Transfer Advisory Committee that meets regularly to review transfer issues and recommend policy changes as needed. The Student Transfer Advisory Committee shall address issues of interpretation and implementation of this chapter.



# **Continuing Education** and Workforce Development

The Division of Continuing Education and Workforce Development, HCC's center for non-traditional learning, offers:

Advanced Technology Training Programming Personal Growth and Enrichment Professional Licensure and Certification Training Health Care Training Management and Supervisory Development Basic Skills Weekend, Fast Track and Telecourse Credit Classes Leading to a Degree Overseas Travel Elementary, Middle and High School Student Programs

Contract and Co-Sponsored Training Courses appeal to students of all ages and interests and can run six or 100 hours, days, evenings, or weekends anytime during the year. Continuing Education classes are offered in a variety of formats and held in locations throughout the county including HCC, public

schools, businesses, and local organizations. Choose the education you want or need without having to follow the traditional model of a semester-long course

with tests and grades.

Oracle

Here is a sampling of the hundreds of courses offered:

Spanish, Japanese, Korean Project Management, Mail-Order Business, Virtual Office Assistant Accounting Applications, Desktop Publishing, Database

Management

Real Estate Appraisal, CPA Review, Insurance Patient Care Technician, Medical Coding and Billing, Certified Nursing Assistant Nursing Updates JAVA, ASP, Webmaster

Microsoft and Novell Certification English As A Second Language, GED Preparation Swimming, Basic Boating, Yoga, Dancing Opera and Music, Howard County History, Arts and Writing

Fiber Optics, Private Pilot, Air Conditioning Travel Agent, Early Childhood/School-Age Day Care, Veterinary Assistant

Stained Glass, Financial Planning, Quilting

Special services to the community include:

SUMMER AND YEAR-ROUND ENRICHMENT PRO-GRAMS FOR ELEMENTARY, MIDDLE AND HIGH SCHOOLERS—selections include study skills, computer classes, languages, and creative writing. 410-772-4976

MEDIATION AND CONFLICT RESOLUTION—includes courses and customized training in conflict resolution, mediation, and anger management. 410-772-4972

BUSINESS TRAINING—Training includes a variety of options at the Business Training Center, Gateway campus, a corporate park easily accessed from Interstate 95, with its state-of-the-art labs, equipment, and software. Custom-designed services and facilities are available to meet the training needs of regional businesses. Courses such as Relational Database Design, Visual Basic and UNIX, as well as traditional applications in all Microsoft and Lotus products and Novell software are taught in these modern labs. 410-772-4808

NON-TRADITIONAL AA DEGREES-programs include Weekend College, Fast Track and Telecourses allowing flexible learning on campus or at home. 410-772-4824

NON-TRADITIONAL HIGH SCHOOL DIPLOMAS FOR ADULTS-formats include the portfolio-based external high school diploma and standardized class instruction leading to the GED test. 410-772-4919

# **CONTINUING EDUCATION**

CREDIT OPPORTUNITIES IN A NON-CREDIT FORMAT—options include the CustomClass program, which opens most credit courses to non- degree-seeking students looking for review, career exploration, and personal enrichment. 410-772-4824

INTERNATIONAL EDUCATION—choices include credit and non-credit study trips abroad, cultural awareness courses, and instruction in 16 foreign languages. 410-772-4824

Quarterly continuing education brochures are delivered to every residence in Howard County in March, May, August, and December.

Brochures for the health care team, Howard County businesses and Weekend College, Fast Track and Telecourse students are also mailed periodically to special mailing lists.

For brochures and general information, call 410-772-4823.

#### STATEWIDE INSTRUCTIONAL PROGRAMS

The Maryland Higher Education Commission has designated certain instructional programs at Maryland community colleges as statewide programs. In addition to providing greater opportunity to additional Maryland citizens, the implementation of statewide programs allows for more effective planning for the placement of new instructional programs, particularly in high-cost specialties. Since residents of one county can enroll in designated programs in adjoining areas with little or no additional cost, there is less need to have all programs available locally. The procedure tends to reduce unnecessary duplication of effort. Programs designated as statewide are:

#### **Allegany Community College**

Automotive Technology Communications Media Dental Hygiene Electromechanical Technology

Forest Technology Medical Lab Technology

Nursing/LPN Nursing/RN

Radiologic Technology Respiratory Therapy

#### **Anne Arundel Community College**

EMT Paramedic Computer Network Management Medical Assistant Radiologic Technology

#### **Baltimore City Community College**

Dental Hygiene
Dietetic Management
Dietetic Technology
International Trade
Medical Records Technology
Operating Room Technology
Physical Therapist Assistant
Respiratory Therapy Technology

#### **Catonsville Community College**

Air Transportation
Automotive Tech (GM, Ford, Toyota options)
Automated Manufacturing Tech
Computer Graphics
Interpretation for the Deaf
Mortuary Science
Occupational Safety and Health Technology
Occupational Therapy Assistant
Printing Management Technology
Recreation, Parks and Leisure

#### **Cecil Community College**

Equine Science Professional Photography

#### **Charles Community College**

Nursing/LPN

#### Chesapeake Community College

Aviation Maintenance Technology Early Childhood (Pending) Radiologic Technology

#### **Dundalk Community College**

Chemical Dependency Counseling Labor Studies Physical Fitness Technology Retail Floristry

#### **Essex Community College**

Diagnostic Medical Sonography Medical Lab Technology Medical Records Technology Nuclear Medical Technology Physician Assistant Radiography Radiation Therapy Technology Respiratory Therapy Veterinary Technology

#### Frederick Community College

Aviation Maintenance Technology Nursing/LPN Park Operation Management

#### **Garrett Community College**

Resort Management Wildlife Management

# Hagerstown Junior College

Radiologic technology

#### **Harford Community College**

Electroneurodiagnostic Technologies Nursing/LPN Science Laboratory Technology

#### **Howard Community College**

Biomedical Engineering Technology Cardiovascular Technology

#### **Montgomery College**

Biotechnology Laboratory Technology Dental Assisting Diagnostic Medical Sonography Fire Science Medical Coder Abstracter Medical Lab Technology Radiologic Technology Technical Writing

#### Prince George's Community College

Culinary Arts
Health Information Technology
Nuclear Medicine Technology
Radiography (X-Ray) Technology
Respiratory Therapy

#### Wor-Wic Tech Community College

Hotel-Motel Restaurant Management Nursing/LPN Nursing/RN Radiologic Technology Resort Management

# **CURRICULUM PROFILE**

# ASSOCIATE IN ARTS DEGREE—Transfer Programs

Two-year curriculum leading to transfer to a four-year program

Arts and Sciences

Architecture

Art

Criminal Justice

**Environmental Science** 

Health and Fitness Education

Laboratory Science - Biotechnology

Liberal Arts

Life Sciences

Music

Nursing

Nursing-LPN Pathway Sequence

Photography

Physical Sciences

Pré-Allied Health

Pre-Dentistry

Pre-Medicine

Pre-Medical Technology

Pre-Nuclear Medicine Technology

Pre-Optometry

Pre-Pharmacy

Pre-Veterinary Medicine

Psychology

Social Sciences

Social Sciences-American Studies

Social Sciences-International Studies

Theatre-Performance

Theatre-Technical

**Business Administration** 

Accounting, Business Administration, Fashion Merchandising

Information Systems Management–Microcomputer Emphasis

Information Systems Management—Programming Emphasis

Computer Science

Computer Science—Internet Technologies

Engineering

General Studies

Teacher Education

Early Childhood Education

Elementary Education

Secondary Education

# ASSOCIATE IN APPLIED SCIENCE DEGREE—Career Programs

Two-year curriculum leading to immediate employment Accounting—Preparation for the CPA Examination

Biomedical Engineering Technology

**Business Management** 

Business Management-Financial Planning

Business Management-Retail Management

Cardiovascular Technology

Chemical Dependency Counseling

Computer Aided Design Technology

Computer Support Technology

Early Childhood Development

Electronics Technology

Electronics Technology—Telecommunications Technology

# **CURRICULUM PROFILE**

#### ASSOCIATE IN APPLIED SCIENCE DEGREE—Career Programs (continued)

Emergency Medical Services-Emergency Medical Technician/Paramedic

Network Administration

Microsoft Networking Option

Office Technology—International Office Assistant

Office Technology—Office Management/Supervision

Office Technology—Office Assistant

Office Technology-Legal Office Assistant

Office Technology—Medical Office Assistant

Radiologic Technology

# CERTIFICATE OF PROFICIENCY—Career Programs

One-year curriculum leading to employment

Biomedical Engineering Technology

Biomedical Engineering Advanced Certificate

Business Management—Financial Planning Option

Business Management—Financial Planning Advanced Certificate

Business Management-Retailing

Cardiovascular Technology

Accelerated Cardiovascular Program for Hospital Trainees

Advanced Cardiovascular Imaging and Interventional Therapies

Cardiac Monitoring and Analysis

Cardiovascular Technology for Allied Health Professionals

Computer Aided Design

Computer Support Technology-Microsoft

Computer Support Technology—PC Maintenance with Network Emphasis

Early Childhood Development

Electronics Technology

Electronics Technology—Telecommunications Option

Emergency Medical Services—Emergency Medical Technician/Paramedic

Network Administration—MCSE Windows 2000 Track

Nursing-Practical Nursing

Office Technology—Office Assistant
Office Technology—Legal Office Assistant
Office Technology—Medical Office Assistant

Plant Science

#### LETTER OF RECOGNITION

Cohesive set of courses to enhance skill level

Computer Support Technology

Early Childhood Development

Emergency Medical Services/Emergency Medical Technician—Basic

Office Technology-Legal Office Assistant

Office Technology—Medical Receptionist

Office Technology—Medical Transcriptionist

Office Technology—Office Automation Specialist

Office Technology—Word Processing Specialist

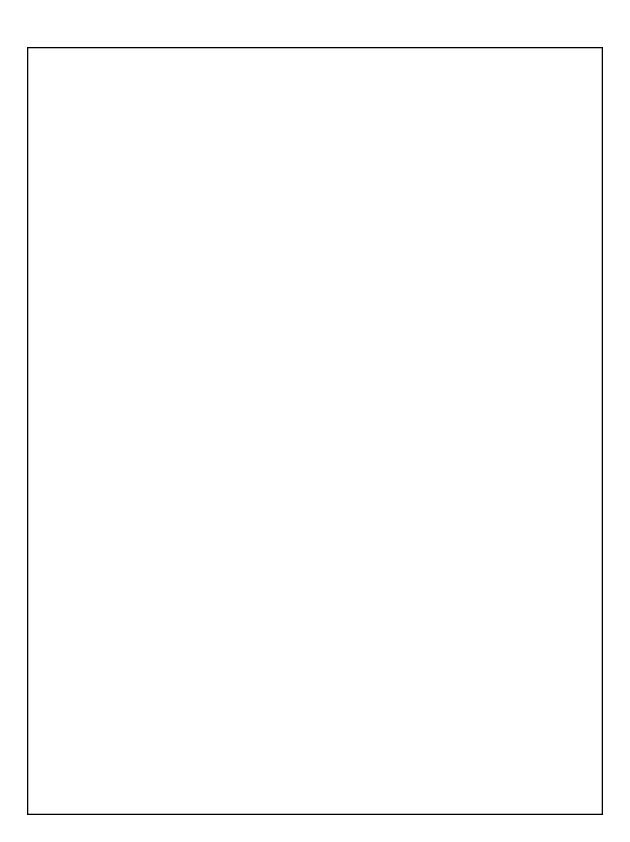
Performance Theatre

Personal Fitness Trainer

Technical Theatre

Residents of Maryland may enroll in this designated Statewide Program at in-county tuition rates if this program is not offered in their county.

<sup>&</sup>lt;sup>2</sup>This Letter of Recognition makes the student eligible to take the A+ Certification exam.



# Curricula

#### PROGRAM SELECTION

The college offers a number of curricula leading to the associate in arts degree, the associate in applied science degree, the certificate of proficiency and the letter of recognition. Each curriculum has been designed to accomplish specific purposes as indicated in the description section of the curricula or program. Students should read the descriptions carefully to ensure the program meets their educational and career goals.

Each associate degree requires between 60-70 credits in order to fulfill graduation requirements. Students may be required to take preparatory or developmental coursework as prerequisite to college level courses. Such courses are not transferable and do not count toward graduation requirements, although developmental coursework figures into the student's cumulative grade point average (see "Placement Testing and College Preparatory Studies Policy" on page 21 for further information). Developmental courses are taught in lecture and laboratory settings where maximum supervision and support can be provided and instruction is often individualized.

# **Developmental English**

Developmental English courses include preparation in reading, writing and study skills. In addition, courses for non-native speakers of English focus on reading, writing, study skills and oral communication skills.

# **Developmental Mathematics**

Developmental mathematics courses focus on elementary arithmetic, fundamental algebra, and elementary geometry. Students should review their prior math material before completing math basic skills assessment testing.

# GENERAL EDUCATION REQUIREMENTS

Howard Community college has the responsibility to ensure that all degree recipients have achieved a broad educational experience. To achieve this breadth of learning, the college has established fundamental general educational goals. These goals include the ability to express ideas effectively both orally and in writing; the ability to analyze written text coherently and in detail; the ability to perform mathematical operations at a college level and apply these skills; the ability to reason logically and to evaluate the reasoning of others; and the ability to understand the elements of one's own culture in relation to other cultures.

To ensure these general education goals are met by each student, Howard Community College requires all students to take courses in writing, literature, fine arts, humanities, mathematics, science, history, social sciences, and interdisciplinary and emerging issues. These topics are woven into the General Education Core Courses. Students completing the associate in arts degree at Howard Community College must complete 36 credits from the general eduation core as designated in the specific curriculum and delineated below. Also, see STUDENT TRANSFER POLICIES on page 41. Students completing the associate of applied science degree will complete at least 20 credits in general education as specified in the individual curriculum.

# COURSES FULFILLING CORE REQUIREMENTS

Each program specifies general education courses needed to complete the 36 credit general education core requirement for the Associate in Arts degree. Most of the courses listed below fulfill core curriculum requirements at state colleges and universities. A few

courses may r	not transfer as core requirements to every	ENGL-102	Introduction to Composition II
	iversity. Check the requirements of your	ENGL-120	Introduction to Literature
	tion before selecting specific courses, or	ENGL-201	American Literature I
	sor for assistance.	ENGL-202	American Literature II
<b>,</b>		ENGL-203	English Literature I
<b>ENGLISH C</b>	OMPOSITION CORE (3-6 credits)	ENGL-204	English Literature II
ENGL-101	Introduction to Composition	ENGL-206	African-American Literature
ENGL-102	Introduction to Composition II*	ENGL-207	Ethics in Literature
*ENGL-102 ful	Ifills the state composition core require-	ENGL-209	Modern Drama
ment.	•	ENGL/	By and About Women
		WMST-212	- y
ARTS AND	HUMANITIES CORE (6-9 credits)	ENGL-225	Introduction to World Literature
Literature (	Core	FILM-171	Introduction to the American Cinema
ENGL-120	Introduction to Literature	FILM-172	Introduction to Foreign Cinema
ENGL-201	American Literature I	FILM-100	Fundamentals of Music
ENGL-202	American Literature II	FINE-101	Humanities through the Arts
ENGL-203	English Literature I	FINE-102	Arts, Cultures, and Ideas
ENGL-204	English Literature II	FINE/	Introduction to Women's Studies:
ENGL-225	Introduction to World Literature	WMST-193	Women, Art, and Culture
		FINE-200H	20th Century Arts, Culture and
Fine Arts Co			Ideas-Rouse
ARTT-104	Art History I	MUSC-101	Music Appreciation
ARTT-105	Art History II	MUSC-102	A Survey of Music Literature
ARTT-143	History of Photography	MUSC-108	African-Ámerican Music
DANC-190	Dance Appreciation	PHIL-101	Introduction to Philosophy
FILM-171	Introduction to the American Cinema	PHIL-103	Introduction to Ethics
FILM-172	Introduction to Foreign Cinema	PHIL-201	Religions of the World
FINE-101	Humanities through the Arts	PHIL-202	Logic and Critical Thinking
FINE-102	Arts, Cultures, and Ideas	SPCH-105	Fundamentals of Public Speaking
FINE/	Introduction to Women's Studies:	SPCH-110	Interpersonal Communication
WMST-193	Women, Art, and Culture	THET-131	Theatre Appreciation
FINE-200H	20th Century Arts, Culture and	THET-141	Basic Acting I
MUICO 100	Ideas-Rouse	THET-190	Theatre History I
MUSC-100	Fundamentals of Music	THET-191	Theatre History II
MUSC-101	Music Appreciation		ith an SPAN, FREN, GERM, ITAL, or RUSS
MUSC-102	A Survey of Music Literature	prefix	
THET-131	Theatre Appreciation	COCIAL CCI	ENICES CODE // O are dita)
THET-141	Basic Acting I	SOCIAL SCI	ENCES CORE (6-9 credits)
THET-190	Theatre History I	History Cor	e
THET-191	Theatre History II	HIST-111	American History to 1877
Humanities	Core	HIST-112	American History since 1877
ARTT-101	Two-Dimensional Basic Design	HIST-121	The Ancient World: Prehistory to the
ARTT-104	Art History I		Middle Ages
ARTT-105	Art History II	HIST-122	Western Civilization and the Pre-
ARTT-109	Drawing I		Modern World
ARTT-143	History of Photography	HIST-123	Western Civilization and the
DANC-190	Dance Appreciation		Modern World

Social and Behavioral Sciences Core No more than ONE history course can be taken in this		CHEM-202 GEOL-107	Organic Chemistry II Introduction to Physical Geology
area.	restranting course can se amen in this	GEOL-117	Introduction to Physical Geology Lab
ANTH-105	Introduction to Cultural Anthropology	METO-111	Meteorology
ECON-101	Principles of Economics (Macro)	PHYS-100	Technical Physics
ECON-102	Principles of Economic (Micro)	PHYS-103	Fundamentals of Physics I
GEOG-101	Introduction to World Geography	PHYS-104	Fundamentals of Physics II
GEOG-102	Elements of Cultural Geography	PHYS-105	Introduction to Physical Science
HIST-111	American History to 1877	PHYS-110	General Physics I (Calculus)
HIST-112	American History since 1877	PHYS-111	General Physics I (Calculus)
HIST-121	The Ancient World: Prehistory to the	PHYS-115	Introduction to Physical Science Lab
11131-121	Middle Ages	11113-113	introduction to 1 mystear science Lab
HIST-122	Western Civilization and the Pre-	ΜΔΤΗΕΜΔ	TICS CORE (3-9 credits)
11101 122	Modern World	MATH-122	Ideas in Mathematics
HIST-123	Western Civilization and the Modern	MATH-124	Technical Math
11101 120	World	MATH-127	Concepts of Mathematics I
HIST-201	Europe in the Twentieth Century	MATH-128	Concepts of Mathematics I
HIST-211	Asian Civilization-China, Japan, and	MATH-120	College Algebra
11131 211	Korea	MATH-133	College Trigonometry
HIST-213	History of Modern Russia	MATH-135	Precalculus
HIST-226	History of African American Experience	MATH-133	Statistics
POLI-101	American Federal Government	MATH-130	Calculus I
PSYC-101	General Psychology		Business Calculus
SOCI-101	Introduction to Sociology	MATH-145 MATH-150	Calculus II
SOCI-101	Social Problems	MATH-186	
3001-102	Jocial Froblems		Introductory Numerical Analysis Statistics
COLENIOE OF	DDF (7-1/ and dita)	MATH-200 MATH-220	Introduction to Discrete Structures
	ORE (7-16 credits)	MATH-240	Calculus III
ASTR-104	Elementary Astronomy	MATH-250	Linear Algebra
ASTR-114	Elementary Astronomy Lab	MATH-260	Differential Equations
BIOL-101	General Biology I	IVIAT IT-200	Differential Equations
BIOL-102	General Biology II	INITEDDISC	TOURNADY AND EMEDOING ISSUES
BIOL-103	Human Heredity		CIPLINARY AND EMERGING ISSUES
BIOL-104	Oceanography Environmental Science	<b>CORE (1-6</b> ANTH-120	
BIOL-105		BMGT-150	Comparative World Cultures International Issues Seminar
BIOL-107	Fundamentals of Microbiology		
BIOL-115	Environmental Science Laboratory	CMSY-110	Software Applications for Micros
BIOL-200	Microbiology Genetics	CMSY-126	Introduction to Internet
BIOL-201		CMSY-129	Principles of Internet
BIOL-202	Genetics Lab	CMSY-271	Introduction to Multimedia Applications
BIOL-203	Anatomy and Physiology I	ENGL-211	Science through Science Fiction
BIOL-204	Anatomy and Physiology II	HMDV-200	Life Span Development
CHEM-101	General Inorganic Chemistry I	HEED-100	Introduction to Lifetime Fitness
CHEM-102	General Inorganic Chemistry II	HEED-102	Introduction to Weight Management
CHEM-103	Fundamentals of General Chemistry	HEED-104	Personal Nutrition Assessment
CHEM-105	Chemistry and Society	HEED-106	Introduction to Stress Management
CHEM-115	Chemistry and Society Lab	HEED-109	Basic CPR and First Aid
CHEM-201	Organic Chemistry I	HEED-110	Introduction to Personal Wellness

HEED-111 HEED-112 HEED-113	Introduction to Health Education First Aid and Safety Drug Use and Abuse
HEED-115	Personal and Community Health
HEED-150/ WMST-150	Women's Health
HEED-160	The Aging Process: Gerontology
HEED-200	Health/Fitness Leader
HEED-210	Foundations of Health Education and
	Health Behavior
HEED-211	Nutrition
HEED-212	Current Health Issues
HEED-213	Stress Management
HIST/	Women in American History: Colonial
WMST-225	Times to 1880
HIST/	Women in American History: 1880 to
WMST-227	Present
HIST/	Women in European History: 1750 to
WMST-228	Present
SOCI/	Introduction to Women's Studies:

### STUDENT RESPONSIBILITIES

WMST-111

After students have selected a particular curriculum, they should familiarize themselves with the various courses that have been specified for the freshman and sophomore years. They should note particularly the prerequisites and the placement of the various courses of learning and should also be aware of their own level of development and how their backgrounds relate to their choice of curriculum.

Women, Gender, and Society

Because of enrollment patterns and scheduling problems, not all courses specified in the suggested curricula are offered each semester. In addition, courses scheduled for a given semester may be canceled because of insufficient enrollment. Students must take these factors into consideration when planning their schedules and/ or timetable for completing any given program or degree. It is strongly suggested that you consult with an advisor or counselor in planning your program.

It is the responsibility of students to meet the requirements of the curriculum in which they are enrolled even though counselors and faculty advisors will provide students with advice and recommendations. Students who wish to transfer courses must acquaint themselves with the requirements of the senior institution in order to obtain maximum credit at time of transfer. A complete statement of Student Transfer Policies is included in this catalog.

#### **CATEGORIES OF ELECTIVES**

#### **SOCIAL SCIENCES ELECTIVES**

Any course with a prefix of ANTH, CRIM, ECON, GEOG, HIST, POLI, PSYC, SOCI, and EDUC-260, HMDV-200, WMST-111, WMST-225, WMST-227, and WMST-228

#### **FINE ARTS ELECTIVES**

Any course with a prefix of ARTT, DANC, FILM, FINE, MUSC, THET, and ENGL-209, ENGL-115, ENGL-215, and WMST-193.

#### **HUMANITIES ELECTIVES**

Any course with a prefix of ARTT, DANC, and ENGL-115, ENGL-120, any 200 level or higher ENGL course (except ENGL-901), any course with a prefix of FILM, FINE, FREN, GERM, ITAL, JAPN, MASS, MUSC, PHIL, RUSS, SPAN, SPCH, THET, and WMST-193 and WMST-212.

#### **SCIENCE ELECTIVES**

Any course with a prefix of ASTR, BIOL, CHEM, GEOL, METO, or PHYS.

#### **BUSINESS ELECTIVES**

Any course with a prefix of ACCT, BMGT, CMSY, ECON, FNPL, LEPL, MAMT, OFFI, and RETL.

#### **ENGLISH ELECTIVES**

ENGL-115, ENGL-120, any 200 level or higher ENGL course (except ENGL-901), any course with a prefix of MASS, SPCH, and WMST-212.

#### ARTS & SCIENCES ELECTIVES

Any course with a prefix of ANTH, ARTT, ASTR, BIOL, CHEM, CRIM, and CMSY-110, CMSY-120, CMSY-121, CMSY-126, CMSY-129, CMSY-135, CMSY-141, CMSY-150, CMSY-160, CMSY-170, CMSY-171, CMSY-181, CMSY-210, CMSY-230, CMSY-261, CMSY-271, CMSY-280, CMSY-281, any course with a prefix of DANC, ECON, EDUC, ENGL (except course below the 100 level), ENES, FILM, FINE, FREN, GEOG, GEOL, GERM, HMDV, HEED, HIST, ITAL, MATH (except MATH-060, MATH-061, MATH-064, MATH-065, MATH-070, MATH-105, and MATH-108), MASS, METO, MUSC, PHIL, PHYS, POLI, PSYC, RUSS, SOCI, SPAN, SPCH, THET, and WMST.

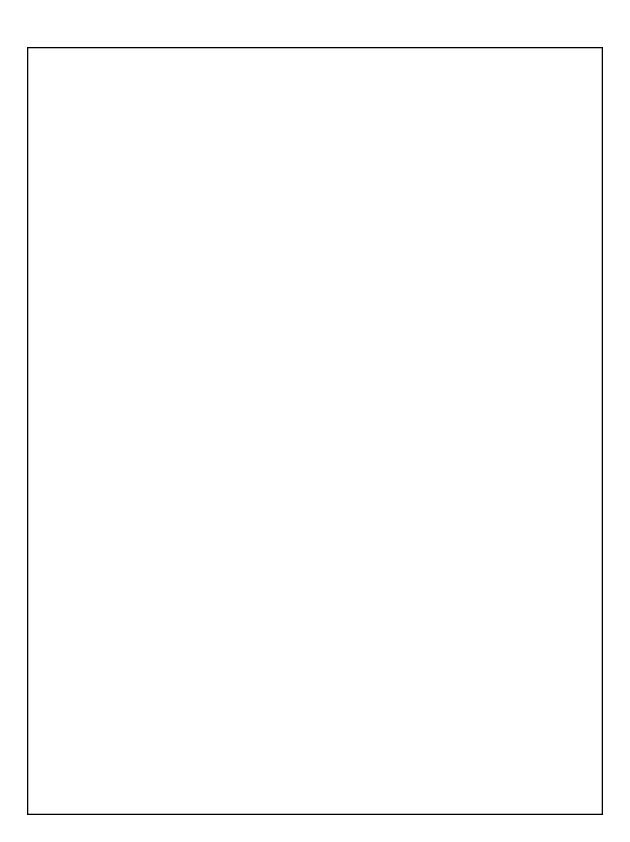
	144TIOO EL EOTIVEO	EDEN	- ·
	MATICS ELECTIVES	FREN	French
	2, MATH-124, MATH-127, MATH-128, MATH-131,	GEOG	Geography
	3, MATH-135, MATH-138, MATH-140, MATH-145,	GEOL	Geology
	), MATH-186, MATH-200, MATH-220, MATH-240,	GERM	German
MAI H-250	), MATH-260.	HEAL	Health Care
		HEED	Health Education
		HIST	History
COUP	RSE CODES	HMDV	Human Development
C		ITAL	Italian
	in the course description section are alpha-	LEPL	Paralegal Studies
	y category and not by course code.	LFIT	Life Fitness
ACCT	Accounting	MAMT	Management
ANTH	Anthropology	MASS	Mass Media
ARTT	Art	MATH	Mathematics
ASTR	Astrology	METO	Meteorology
BIOL	Biology	MSFT	Microsoft
BMET	Biomedical Engineering Technology	MUSC	Music
BMGT	Business Administration	NOVL	Novell
CARD	Cardiovascular Technology	NURS	Nursing
CHEM	Chemistry	OFFI	Office Technology
CADD	Computer-Aided Design	PHIL	Philosophy
CMSY	Computer Systems	PHYS	Physics
COOP	Cooperative Education	PLSC	Plant Science
CRIM	Criminology	POLI	Political Science
DANC	Dance	PYSC	Psychology
ECON	Economics	RAD	Radiologic Technology
EDUC	Education	RETL	Retailing
ELEC	Electronics Technology	RUSS	Russian
EMSP	Emergency Medical Services	SMAL	Smalltalk
ENES	Engineering	SOCI	Sociology
ENGL	English	SPAN	Spanish
FILM	Film	SPCH	Speech
FINE	Fine Arts	THET	Theatre
ENIDI	E' 'IDI''	LA AL ACT	144 ( 0) 11

Fine Arts Financial Planning

FNPL

WMST

Women's Studies



# 2000-2001 CURRICULA—TRANSFER PROGRAMS

The following segment of the catalogue presents transfer patterns and program options in five basic areas: arts and
sciences, business administration, computer science, engineering and general studies. Transfer programs are designed
to transfer primarily to University of Maryland system schools, however, students may plan to transfer to universities
and colleges throughout the nation.

specific courses, stud	dents should use rsult with the ins	"ARTSYS," the l titution to which	University of Mary n they are interes	land System's con	rmine the transferability nputerized transfer articu g. Completion of a trans

# 2000-2001 CURRICULA—TRANSFER PROGRAMS

# ARTS AND SCIENCES - Architecture ASSOCIATE IN ARTS DEGREE

This curriculum is a guide to students planning to transfer to a four-year institution to complete a bachelor of science degree in Architecture. This program is specifically designed to transfer to UMCP. Students are advised to check the requirements of the institution to which they intend to transfer.

GENERAL EDUCATIO (General education general electives or total of general edu least 60 semester ho	Credits	Suggested Semester			
ENGL-101	Introduction to Composition I	3	1		
ENGL-102 Arts & Humanities	Introduction to Composition II Arts & Humanities Core Courses (see p. 56) (one course from each core area: Literature, Fine Arts	3	2		
	and Humanities)	9	1-4		
History	HIST-121, 122, or 123	3	2-3		
Social Sciences	Social and Behavioral Sciences Core Course				
D.O. 404	(see p. 597	3	4		
BIOL-101	General Biology I	4	1		
CHEM-101	General Inorganic Chemistry I	4	1		
Mathematics	MATH-133 or higher	3-5	1		
Mathematics	MATH-140 or higher	4	2		
Interdisciplinary	Interdisciplinary and Emerging Issues Core Course (see p. 57)	1-3	2		
REQUIRED COURSES RELATED TO MAJOR					
ARTT-108	Environmental Design: Introduction to the Built	0	0		
A DTT 10/	Environment	3	3 3 3 4		
ARTT-106	The History of Western Architecture I	3	<u>პ</u>		
ARTT-109	Drawing I	3	3 1		
ARTT-107 MATH-150	The History of Western Architecture II Calculus II	3 4	4		
PHYS-103	Fundamentals of Physics I	4	4		
PHYS-104	Fundamentals of Physics II	4	4		

### **ARTS AND SCIENCES - Art ASSOCIATE IN ARTS DEGREE**

This curriculum is designed as a guide for students planning to transfer to a four-year institution to complete a bachelor's degree in studio art/art history and such specialty areas as drawing painting, graphic design, product design, interior design, architectural design, printmaking, photography, ceramics, sculpture, fiber arts, and crafts. Students are advised to check the requirements of the institution to which they intend to transfer. The main emphasis in the art program is the development of conceptual and technical visualization skills and a transfer portfolio. There is also a flexible option whereby a student can prepare for a digital prepress career in the printing industry without compromising his or her ability to transfer to a four-year institution.

general electives or	core credits in excess of 36 will transfer as courses related to the major. Each student's cation and required courses must equal at	Credits	Suggested Semester
ENGL-101 ENGL-102 Arts & Humanities	Introduction to Composition I Introduction to Composition II Literature Core Course (see p. 56) FINE-102 Arts, Cultures, and Ideas ARTT-104 or 105 Art History I or II	3 3 3 3 3	1 2 3 3
History Social Sciences	HIST-121, 122, or 123 Social and Behavorial Science Core Course (see p. 57)	3 6	3 3-4
Science  Mathematics	Science Core Course (see p. 57; must include one course with lab) MATH-122 or higher	7-8 3-5	2-3 1
Interdisciplinary	Interdisciplinary and Emerging Issues Core Course (see p. 57)	1-3	3
REQUIRED COURSES  Studio Art Track  ARTT-104 or 105  ARTT-101  ARTT-102  ARTT-109  ARTT-110  ARTT-211  ARTT-250  ARTT  Humanities	Art History I or II (course not taken in CORE) Two-Dimensional Basic Design Three-Dimensional Basic Design Drawing I Drawing II Painting I Art Portfolio Assessment Art Elective Humanities Elective (see p. 58)	3 3 3 3 3 1 6 3	2 1 2 1 2 3 4 3.4 3
Photography Track ARTT-104 or 105 ARTT-101 ARTT-102 ARTT-109 ARTT-110 ARTT-114 ARTT-141 ARTT-142 ARTT-143 ARTT-144 ARTT-250	Art History I or II (course not taken in CORE) Two-Dimensional Basic Design Three-Dimensional Basic Design Drawing I Drawing II Basic Photography Intermediate Photography History of Photography Introduction to Color Photography Art Portfolio Assessment	3 3 3 3 3 3 3 3 1	2 1 2 1 2 2 2 3 3-4 3-4 4

# ARTS AND SCIENCES - ART (continued) ASSOCIATE IN ARTS DEGREE

Graphic Design Trac ARTT-104 or 105 ARTT-101 ARTT-102 ARTT-109 ARTT-110 ARTT-112 ARTT-146 ARTT-200 Humanities ARTT-250	Art History I or II (course not taken in CORE) Two-Dimensional Basic Design Three-Dimensional Basic Design Drawing I Drawing II Drawing and Painting in Digital Media Digital Photography I Graphic Design Humanities Elective (see p. 61) Art Portfolio Assessment	3 3 3 3 3 3 3 3 1	2 1 2 1 2 3 3 3-4 3 4
Digital Prepress Trac ARTT-104 or 105 ARTT-101 ARTT-102 ARTT-109 ARTT-112 ARTT-141 ARTT-146 ARTT-200 ARTT-204 ARTT-206	Art History I or II (course not taken in CORE) Two-Dimensional Basic Design Three-Dimensional Basic Design Drawing I Drawing and Painting in Digital Media Basic Photography Digital Photography I Graphic Design Introduction to Desktop Publishing Digital Prepress Internship*	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	2 1 2 1 3 2 3 3-4 3
ARTT-110 ARTT-250	OR Drawing II Art Portfolio Assessment	3 1	4 4

<sup>\*</sup>Digital Prepress students who plan to transfer should substitute ARTT-110: Drawing II for ARTT-206.

### ARTS AND SCIENCES - Criminal Justice ASSOCIATE IN ARTS DEGREE

The Criminal Justice pattern is designed as a guide for students planning to transfer to a four-year institution to complete a bachelor's degree in Criminology/Criminal Justice. It is designed to prepare students who plan to ultimately serve the community on a local, state, or national level in the fields of law enforcement, parole and probation, juvenile justice corrections, law or criminal justice research. Articulation has been established with the University of Baltimore and the University of Maryland, College Park and it is recommended that students acquaint themselves with the course requirements of the institution to which they plan to transfer. Police academy graduates may also receive credit for prior learning and should contact criminal justice coordinator.

	N CORE core credits in excess of 36 will transfer as courses related to the major. Each student's	Credits	Suggested Semester			
total of general education and required courses must equal at						
least 60 semester hours of credit.)						
ENGL-101	Introduction to Composition I	3	1			
ENGL-102	Introduction to Composition II	3	2			
Arts & Humanities	Literature Core Course (see p. 56)	3 3 3 3 3	2			
	Fine Arts Core Course (see p. 56)	3	3			
	SPCH-105 Fundamentals of Public Speaking	3	2 2 3 3			
History	History Core Course (see p. 56)	3	1			
Social Sciences	Social and Behavioral Sciences Core Courses (see p. 56) (Required SOCI-101 and PSYC-101)	6	2-3			
Science	Science Core Course (see p. 57; must include	7-8	2-3			
Mathematics	one course with lab) MATH-122 or higher	7-8 3-5	2-3 1			
Interdisciplinary	Interdisciplinary and Emerging Issues Core Course	3-3	1			
interdiscipinary	(see p. 57)	2-3	3			
REQUIRED COURSES	RELATED TO MAJOR					
CRIM-101	Introduction to Criminal Justice	3	1			
CRIM-102	Introduction to Criminology	3	2			
Political Science	American Federal Government (POLI-101) OR					
	State and Local Government (POLI-102)	3	3			
Criminal Justice	Any two courses with a CRIM-prefix	6	3-4			
Social Sciences	Social and Behavioral Sciences Elective (see p. 57) (Recommend completion of					
	history sequence and POLI-101 or POLI-102)	6	3-4			
Computer Systems	Any course with a CMSY-Prefix	Ü	0 1			
J W	(CMSY-110 recommended)	3-4	4			

# ARTS AND SCIENCES - Environmental Science ASSOCIATE IN ARTS DEGREE

The growing emphasis on environmental issues has created a demand for skilled specialists in the area of environmental science and natural resources management. This curriculum is a guide to students planning to transfer to a four-year institution to complete a bachelor of science degree in Environmental Science, Ecology, or Natural Resources Management. Students are advised to check the requirements of the institution to which they intend to transfer.

GENERAL EDUCATION (General education of general education of total of general education	Credits	Suggested Semester	
least 60 semester ho		2	1
ENGL-101	Introduction to Composition I	3 3 3 3	1
ENGL-102	Introduction to Composition II	3	2 2 3 3
Arts & Humanities	Literature Core Course (see p. 56)	3	2
	Fine Arts Core Course (see p. 56)	3	3
History	History Core Course (see p. 56)	3	3
Social Sciences	Social and Behavioral Sciences Core Course		
	(see p. 57)	3	4
BIOL-101	General Biology I	4	1
BIOL-102	General Biology II	4	2
CHEM-101	General Inorganic Chemistry I	4	1
CHEM-102	General Inorganic Chemistry II	4	2 1 2
Mathematics	MATH-133 or higher	3-5	1
CMSY-110	Software Applications for Micros	3	1 3
REQUIRED COURSES	RELATED TO MA IOR		
Mathematics	MATH-140 or higher	4	2
BIOL-105	Environmental Science	3	2 3 3 3
BIOL-105	Environmental Science Lab	1	3
BIOL-200		1	ა ე
	Microbiology	4 3	
GEOL-107	Introduction to Physical Geology	ა 1	4
GEOL-117	Introduction to Physical Geology Lab	I	4
PHYS-105	Introduction to Physical Science	3	4
PHYS-115	Introduction to Physical Science Lab	1	4

### ARTS AND SCIENCES – Health and Fitness Education ASSOCIATE IN ARTS DEGREE

This pattern is designed for students who wish to transfer to a four-year institution to complete a baccalaureate degree in general health education, school and community health and health fitness and promotion programs. The courses and curricula have been designed to provide the student with a foundation of science, an introduction to fundamental competencies in health, fitness, and wellness, and an academic core of general education requirements. This program has been designed to fit with similar programs at Frostburg University, Salisbury State University, Towson University, and the University of Maryland. Students are advised to check the requirements of the institution to which they intend to transfer.

GENERAL EDUCATIO (General education general electives or total of general edu- least 60 semester ho	Credits	Suggested Semester	
ENGL-101	Introduction to Composition I	2	1
ENGL-102	Introduction to Composition II	3	
Arts & Humanities	Literature Core Course (see p. 56)	3	3
Alto & Humanitics	Fine Arts Core Course (see p. 56)	3	4
	SPCH-105 Fundamentals of Public Speaking	3	4
History	History Core Course (see p. 56)	3	i
SOCI-101	Introduction to Sociology	3	2
PSYC-101	Introduction to Psychology	3 3 3 3 3 3 3	2 3 4 1 2 3 1 2
BIOL-101	General Biology I	4	1
BIOL-203	Anatomy and Physiology I	4	2
Mathematics	MATH-122 or higher	3-5	1
Interdisciplinary	Interdisciplinary and Emerging Issues Core		
, ,	Courses (see p. 57)	1-3	3
REQUIRED COURSES	RELATED TO MAJOR		
BIOL-204	Anatomy & Physiology II	4	3
HEED-112	First Aid and Safety	3	1
HEED-115	Personal and Community Health	3	2
HEED-210	Foundations of Health Education and Health Behavior		2 3 4
HEED-211	Nutrition	3	
HEED-213 HEED	Stress Management Health Electives (Select from HEED-113, HEED-150,	3	4
	HEED-160, HEED-120, HEED-121, HEED-200 or HEED-212)	6	2,4

# ARTS AND SCIENCES - Health and Fitness Education (Personal Fitness Trainer) LETTER OF RECOGNITION

The letter of recognition provides students with the basic competencies necessary for an entry level position in the fitness field. It also enhances the knowledge and skills of those already employed in the exercise/fitness industry.

		Credits
HEED-109	Basic First Aid	2
HEED-200	Health/Fitness Leader	3
HEED-211	Nutrition	3
HEED-210	Foundations of Health Education and Health Behavior OR	r 3
HEED-213	Stress Management	3

# ARTS AND SCIENCES - Laboratory Science (Biotechnology) ASSOCIATE IN ARTS DEGREE

The growing emphasis on modern science technology has created a demand for skilled laboratory specialists in the emerging biotechnology and chemical industries. These areas include genetic engineering, pharmaceuticals, biological and biomedical research, quality control, water quality and treatment, pollution abatement, and others. The college has articulated this program with the Department of Medical and Research Technology at the University of Maryland at Baltimore which leads to a B.S. degree. The laboratory science program is suitable for students planning to seek employment as laboratory technicians in industrial and research laboratories. Graduates of this program should be able to carry out laboratory procedures, properly use laboratory apparatus and perform basic calculations. Students interested in this curriculum are advised to check the requirements of the institution to which they intend to transfer.

GENERAL EDUCATION (General education of general electives or of total of general educa-	Credits	Suggested Semester	
least 60 semester ho ENGL-101	Introduction to Composition I	3	1
ENGL-102	Introduction to Composition II	3 3 3 3	
Arts & Humanities	Literature Core Course (see p. 56)	3	2 2 3 2
	Fine Arts Core Course (see p. 56)	3	3
History	History Core Course (see p. 59)	3	2
Social Sciences	Social and Behavioral Sciences Core Course	0	
DIOI 101	(see p. 57)	3	4
BIOL-101 CHEM-101	General Biology I General Inorganic Chemistry I	4 4	1 1
CHEM-102	General Inorganic Chemistry II	4	2
CHEM-201	Organic Chemistry I	4	2 3 1
Mathematics	MATH-133 or higher	3-5	1
Interdisciplinary	Interdisciplinary and Emerging Issues Core Course (see p. 57)	1-3	2
REQUIRED COURSES	PELATED TO MA IOP		
BIOL-200	Microbiology	4	3
MATH-138	Statistics	4	3 3
Science	Science Electives (see p. 61) (BIOL-102, BIOL-290, PHYS-103, PHYS-104, BIOL-203, BIOL-204		
	recommended)	4	3-4
BIOL-201	Genetics	3	4
BIOL-202	Genetics Lab	1	4 4
BIOL-205	Cell Biology	4	4
CHEM-202 CMSY-110	Organic Chemistry II Software Applications For Micros	4	4 4
OINIO I - I IO	JOHWAIC Applications For Micros	J	4

### ARTS AND SCIENCES - Liberal Arts ASSOCIATE IN ARTS DEGREE

This curriculum is designed for those who want to study pre-law, journalism, interdisciplinary studies, English, sociology, economics and other similar disciplines at a four-year school. It gives the student the flexibility to pursue a major interest and, at the same time, to fulfill the lower-division general education requirements for transfer to a baccalaureate degree program. Students should seek guidance from advisors and the institution to which they wish to transfer to determine appropriate coursework for specific transfer programs.

GENERAL EDUCATION (General education of general electives or total of general educations to the second least 60 semester ho	Credits	Suggested Semester	
ENGL-101	Introduction to Composition I	3	1
ENGL-102	Introduction to Composition II	3 3 3	2
Arts & Humanities	Literature Core Course (see p. 56)	3	2 3 3
	Fine Arts Core Course (see p. 56)	3	3
	Humanities Core Course (see p. 56) (Foreign		
	Language sequence recommended)	3 3	1
History	History Core Course (see p. 56)	3	1
Social Sciences	Social and Behavioral Sciences Core Courses	,	2.2
Colonos	(see p. 57)	6	2-3
Science	Science Core Course (see p. 57; must include one course with lab)	7-8	3-4
Mathematics	MATH-122 or higher	7-6 3-5	3- <del>4</del> 1
Interdisciplinary	Interdisciplinary and Emerging Issues Core Course	3-3	į.
meraiscipinary	(see p. 57)	2-3	4
REQUIRED COURSES	RELATED TO MAJOR		
Oral Communication	Select one of the following: FINE-102, HMDV-100,		
	SPCH-105 or 110, THET-141	3	1
Arts and Sciences	Arts and Sciences Electives (see p. 58)	6	2,4
Humanities	Humanities Electives (see p. 58)		
	(Foreign language sequence is recommended)	6	3-4
English	Any course with an ENGL or MASS prefix (Course		
0 1101	must be 200 level or higher)	3	4
Social Sciences	Social and Behavioral Sciences Elective (see p. 58) (Completion of history sequence recommended)	6	2

Students can complete the entire Associate in Arts Degree in Liberal Arts online or through a combination of online courses and telecourses (see page 22).

### ARTS AND SCIENCES - Life Sciences ASSOCIATE IN ARTS DEGREE

Recent advances in molecular biology and genetics have expanded the employment opportunities for biologists. Training in the life sciences prepares students for diverse occupations including employment in research or industrial laboratories, fish and wildlife programs, zoos, museums, and aquaria. This curriculum prepares students for further study in specialty areas including agriculture, botany, entomology, horticulture, microbiology, zoology, molecular biology, genetics, ecology, physiology, and marine biology. In addition, some students use this curriculum as preparation for pre-medical or pre-allied health programs. The life sciences curriculum focuses on the fundamental scientific principles and problem solving techniques which are essential for future success as a biologist. The college has articulated this program with the biotechnology (biochemistry major track) program at the University of Maryland at Baltimore County which leads to a B.A. degree. This program also transfers to other colleges. Students interested in this curriculum are advised to check the requirements of the institution to which they intend to transfer.

GENERAL EDUCATION CORE (General education core credits in excess of 36 will transfer as general electives or courses related to the major. Each student's total of general education and required courses must equal at			Suggested Semester	
least 60 semester ho		2	1	
ENGL-101	Introduction to Composition I	3 3 3 3	1	
ENGL-102	Introduction to Composition II	3	2 2 3 3	
Arts & Humanities	Literature Core Course (see p. 56)	3	2	
	Fine Arts Core Course (see p. 56)	3	3	
History	History Core Course (see p. 56)	3	3	
Social Sciences	Social and Behavioral Sciences Core Course			
5.6. 464	(see p. 57)	3	4	
BIOL-101	General Biology I	4	1	
BIOL-102	General Biology II	4	2	
CHEM-101	General Inorganic Chemistry I	4	1	
CHEM-102	General Inorganic Chemistry II	4	2	
Mathematics	MATH-133 or higher	3-5	1	
Interdisciplinary	Interdisciplinary and Emerging Issues Core Course (see p. 57)	1-3	2	
REQUIRED COURSES RELATED TO MAJOR				
Mathematics	MATH-140 or higher	4	2	
BIOL-200	Microbiology	4	2 3 3	
CHEM-201	Organic Chemistry I	4		
Science	Science Elective (see p. 58) (Physics recommended)	4	3-4	
BIOL-201	Genetics	3	4	
BIOL-202	Genetics Lab	1	4	
CHEM-202	Organic Chemistry II	4	4	

### ARTS AND SCIENCES - Music ASSOCIATE IN ARTS DEGREE

This curriculum is designed as a guide for students planning to transfer to a four-year institution to complete a bachelor's degree in music majoring in performance, musicology, music education, or jazz/commercial music. Students are advised to check the requirements of the institution to which they intend to transfer. The main emphasis in the music program is the creation of an artistic point of view on the part of the student.

GENERAL EDUCATION CORE (General education core credits in excess of 36 will transfer as general electives or courses related to the major. Each student's total of general education and required courses must equal at least 60 semester hours of credit.)			Suggested Semester
ENGL-101	Introduction to Composition I	3	1
ENGL-102	Introduction to Composition II	3	
Arts & Humanities	Literature Core Course (see p. 56)	3 3 3 3 3 3	2 3 4 3 4
	FINE-102 Arts, Cultures and Ideas	3	4
	MUSC-102 Survey of Music Literature	3	3
History	History Core Course (see p. 56)	3	4
Social Sciences Science	Social and Behavioral Sciences Core Courses (see p. 57) Science Core Course (see p. 57; must include one	6	3-4
JUICHUC	course with lab)	7-8	1-2
Mathematics	MATH-122 or higher	3-5	1
Interdisciplinary	Interdisciplinary and Emerging Issues Core Course	3 3	'
inter disciplinary	(see p. 57)	1-3	2
REQUIRED COURSES MUSC-110 MUSC-117 MUSC-111 MUSC-118 MUSC-194 MUSC-210 MUSC-217 MUSC-217 MUSC-211 MUSC-218 MUSC-130-180	RELATED TO MAJOR  Music Theory I  Applied Music I *  Music Theory II  Applied Music II *  Class Piano II *  Music Theory III  Applied Music III *  Music Theory III  Applied Music III *  Music Theory IV  Applied Music IV *  Ensemble (Major)  (Participation in one major encemble per competer.)	4 2 4 2 2 4 2 4 2 4 2	1 1 2 2 2 2 3 3 4 4 4
	(Participation in one major ensemble per semester is required and may be taken up to four times for students enrolled in the music curriculum.)		

<sup>\*</sup>Students seeking a Jazz/Commercial Music Emphasis should enroll in the jazz sections of Applied Music and may substitute MUSC-109 Techniques of Electronic and Computer Music for Class Piano II.

### ARTS AND SCIENCES - Nursing ASSOCIATE IN ARTS DEGREE

This program is designed to prepare a person to become registered nurse. It is both a career and a transfer program. Graduates are qualified for positions in hospitals, community agencies, long term care facilities and other health care settings. Graduates are also eligible for direct transfer to selected baccalaureate nursing programs in Maryland. Learning occurs through classroom experience, simulated laboratory activities and clinical assignments in a variety of health care settings. Students apply to participate in learning activities in the day or evening/weekend sections of the program. The program is approved by the Maryland Board of Nursing 4140 Patterson Avenue, Baltimore, Maryland 21215, 410-764-5124, and accredited by the National League for Nursing Accrediting Commission, 61 Broadway, New York, New York 10006, 1-800-669-1656 ext. 242. Successful completion of courses in this program will lead to eligibility to be considered by the Board of Nursing to write the National Council Licensing Examination for Registered Nurse licensure.

GENERAL EDUCATION (General education of general electives or total of general educ	Credits	Suggested Semester	
least 60 semester ho		•	
ENGL-101	Introduction to Composition I	3	2 3 4 3 2
ENGL-102	Introduction to Composition II	3	3
Arts & Humanities	Fine Arts Core Course (see p. 56)	3	4
SOCI-101	Introduction to Sociology	3	3
PSYC-101	General Psychology	3	2
BIOL-107	Fundamentals of Microbiology	4	Pre-req
CHEM-103	Fundamentals of General Chemistry	4	Pre-reg
BIOL-203	Anatomy and Physiology I	4	Pre-reg
BIOL-204	Anatomy and Physiology II	4	2 '
Mathematics	MATH-122, 131 or higher	3-5	Pre-reg
HMDV-200	Life Span Development	3	1 '
REQUIRED COURSES	RELATED TO MAJOR		
NURS-101	Introduction to Patient Needs and Nursing Actions	7	1
NURS-102	Nursing of Patients with Common Responses	0	2
NILIDO 201	to Stress	8	2
NURS-201	Nursing of Patients with Complex Responses	0	2
NILIDO 000	to Stress I	9	3
NURS-202	Nursing of Patients with Complex Responses to Stress II	9	4

Admission to the Nursing Program is based upon successful completion of required courses. Contact the Admissions Office to schedule an appointment for an information session regarding the Associate Degree Nursing Program.

A grade of "C" or better is required in nursing, mathematics and science courses.

### ARTS AND SCIENCES - Nursing ASSOCIATE IN ARTS DEGREE

#### LPN Pathway Sequence

An LPN Pathway sequence is an option for advanced standing in the associate in arts degree program in nursing for those licensed practical nurses who meet specified criteria. Most general education coursework must be completed prior to entry into a summer transition course. Students apply to participate in learning activities in the day or evening/weekend sections of the program. The program is approved by the Maryland Board of Nursing, 4140 Patterson Avenue, Baltimore, Maryland 21215, 410-764-5124, and accredited by the National League for Nursing Accrediting Commission, 61 Broadway, New York, New York 10006, 1-800-669-1656 ext. 242. Successful completion of courses in this program will lead to eligibility to be considered by the Board of Nursing to write the National Council Licensing Examination for Registered Nurse licensure.

			Suggested
GENERAL EDUCATION	N CORE	Credits	Semester
ENGL-101	Introduction to Composition I	3	Pre-req
ENGL-102	Introduction to Composition II	3	3
Arts & Humanities	Fine Arts Core Course (see p. 56)	3	4
SOCI-101	Introduction to Sociology	3	3
PSYC-101	General Psychology	3	Pre-req
BIOL-107	Fundamentals of Microbiology	4	Pre-req
CHEM-103	Fundamentals of General Chemistry	4	Pre-req
BIOL-203	Anatomy and Physiology I	4	Pre-req
BIOL-204	Anatomy and Physiology II	4	Pre-req
Mathematics	MATH-122, 131 or higher	3-5	Pre-req
HMDV-200	Life Span Development	3	Pre-req
REQUIRED COURSES F	RELATED TO MAJOR		
NURS-103	Transition into Nursing II	5	Summer
NURS-201	Nursing of Patients with Complex Responses		
	to Stress I	9	3
NURS-202	Nursing of Patients with Complex Responses		
	to Stress II	9	4

NURS-101 and NURS-102 credit for LPN education and experience may be gained through examination and successful completion of NURS-103. Please contact the Admissions Office for information regarding admission requirements.

Graduates of an LPN program which has been validated for statewide LPN-ADN articulation will be granted transfer credit for NURS-101 and NURS-102 after successful completion of NURS-103.

A grade of "C" or better is required in nursing, mathematics, and science courses.

# ARTS AND SCIENCES - Physical Sciences ASSOCIATE IN ARTS DEGREE

There is a need for trained physical scientists in government and industry to meet society's increasing emphasis on science and technology. Diversified fields of specialization within the physical sciences include: astronomy, chemistry, geology, meteorology, physics, lab technicians (B.S.), technical writing, and secondary and college teaching. This program provides a strong mathematics background and emphasizes the ability to apply theory to solve problems in physical science, especially chemistry and physics. There is also emphasis on operating laboratory equipment and collecting data to appraise, use and interpret, including the identification of unknowns. Students interested in this curriculum are advised to check the requirements of the institution to which they intend to transfer.

GENERAL EDUCATION CORE (General education core credits in excess of 36 will transfer as general electives or courses related to the major. Each student's total of general education and required courses must equal at			Suggested Semester
least 60 semester ho			
ENGL-101	Introduction to Composition I	3	1
ENGL-102	Introduction to Composition II	3 3 3	2 2 3
Arts & Humanities	Literature Core Course (see p. 56)	3	2
	Fine Arts Core Course (see p. 56)	3	3
History	History Core Course (see p. 56)	3	1
Social Sciences	Social and Behavioral Sciences Core Course		
	(see p. 57)	3	4
CHEM-101	General Inorganic Chemistry I	4	1
CHEM-102	General Inorganic Chemistry II	4	2
PHYS-110	General Physics I (Calculus)	4	1
PHYS-111	General Physics II (Calculus)	4	2
MATH-140	Calculus I	4	1
Interdisciplinary	Interdisciplinary and Emerging Issues Core Course (see p. 57)	1-3	2
REQUIRED COURSES			_
MATH-150	Calculus II	4	2
PHYS-112	General Physics III (Calculus)	•	3
Science	Science Electives (see p. 58) (CHEM-201, CHEM-202, ASTR-104, ASTR-114, GEOL-107, GEOL-117, GEOL-109		
	and GEOL-115 recommended)	12	3,4
Arts and Sciences	Arts and Sciences Elective (see p. 58) (MATH-240 recommended)	3-4	4

# ARTS AND SCIENCES - Pre-Allied Health ASSOCIATE IN ARTS DEGREE

Highly qualified allied health professionals are needed to respond to the increasing health needs of a growing population. The pre-allied health curriculum is designed to prepare students for entrance into the following programs: dental hygiene, nursing, physical therapy, physician assistant programs, and radiation therapist. The pre-allied health curriculum emphasizes science and liberal arts courses that are required for transfer into these professional schools at other institutions. The curriculum has been designed to fulfill the diverse pre-requisites of professional schools in these allied health areas. Students should become familiar with the entrance requirements of the professional program from which they plan to obtain their allied health degree in order to plan a program of study at HCC that includes the appropriate electives.

general electives or	core credits in excess of 36 will transfer as courses related to the major. Each student's cation and required courses must equal at	Credits	Suggested Semester
ENGL-101	Introduction to Composition I	3	1
ENGL-102	Introduction to Composition II	3 3 3 3 3	2 2 2 3
Arts & Humanities	Literature Core Course (see p. 56)	3	2
	Fine Arts Core Course (see p. 56)	3	2
History	History Core Course (see p. 56)	3	3
Social Sciences	Social and Behavioral Sciences Core Course	3	4
D01/0.404	(see p. 57)		
PSYC-101	General Psychology	3	2
BIOL-101	General Biology I	4	1
BIOL-203	Anatomy and Physiology I	4 4	2
CHEM-101	General Inorganic Chemistry I	4 3-5	1 1
Mathematics	MATH-133 or higher	3-0	ı
Interdisciplinary	Interdisciplinary and Emerging Issues Core Course (see p. 57)	1-3	2
REQUIRED COURSES CHEM-102	RELATED TO MAJOR General Inorganic Chemistry II		
CITEIVITOZ	OR		
CHEM-104	Fundamentals of Organic and Biochemistry	4	3
Science	Science Electives (see p. 58) (BIOL-200, BIOL-201,	•	ŭ
	BIOL-202, BIOL-205, PHYS-103, PHYS-104, BIOL-204,		
	BIOL-206 recommended. See your advisor regarding		
	science electives for your program.)	12	3-4
Social Sciences	Select two courses with a prefix of ECON, GEOG,		
	HIST, POLI, PSYC, or SOCI.	6	3-4
Mathematics	MATH-133 or higher (MATH-138 recommended for		
	most programs)	3-4	4

### ARTS AND SCIENCES - Pre-Dentistry ASSOCIATE IN ARTS DEGREE

Dentists are important health professionals who are employed in a variety of settings including privately owned practices, group practices, and government or industrial facilities. This program is designed to prepare students who plan to apply for admission to dental school. Students who have not already earned a B.S. or B.A. will apply to dental school after transferring to a four-year college or university. In many colleges, students must choose a major other than pre-dentistry. Students often select a major which will provide an alternative career route should they change their occupational plans. The pre-dentistry curriculum prepares students for both dental school as well as for bachelor's degrees in the life sciences, chemistry, or related fields. Pre-dentistry students should obtain a copy of admissions requirements for U.S. and Canadian dental schools available through the American Association of Dental Schools, 1625 Massachusetts Avenue, N.W., Washington, D.C. 20036.

GENERAL EDUCATION CORE (General education core credits in excess of 36 will transfer as general electives or courses related to the major. Each student's total of general education and required courses must equal at			Suggested Semester	
least 60 semester ho		2	1	
ENGL-101	Introduction to Composition I	3 3 3 3	1	
ENGL-102	Introduction to Composition II	3	2 2 3 3	
Arts & Humanities	Literature Core Course (see p. 56)	3	2	
1.00	Fine Arts Core Course (see p. 56)	3	3	
History	History Core Course (see p. 56)	3	3	
Social Sciences	Social and Behavioral Sciences Core Course (see p. 57)	3	4	
BIOL-101	General Biology I	4	1	
BIOL-102	General Biology II	4	2	
CHEM-101	General Inorganic Chemistry I	4	2 1 2	
CHEM-102	General Inorganic Chemistry II	4	2	
Mathematics	MATH-133 or higher	3-5	1	
Interdisciplinary	Interdisciplinary and Emerging Issues Core Course (see p. 57)	1-3	2	
REQUIRED COURSES RELATED TO MAJOR				
Mathematics	MATH-140 or higher	4	2 3 3	
CHEM-201	Organic Chemistry I	4	3	
PHYS-103	Fundamentals of Physics I	4		
BIOL-201	Genetics	3	4 4	
BIOL-202	Genetics Lab	1		
CHEM-202	Organic Chemistry II	4	4	
PHYS-104	Fundamentals of Physics II	4	4	

### ARTS AND SCIENCES - Pre-Medicine ASSOCIATE IN ARTS DEGREE

Medical professionals make an important contribution to the welfare of many individuals both as health practitioners and as researchers. This curriculum is designed to prepare students who plan to apply to medical school. Unless students have already earned a B.S. or B.A. degree, they will apply to medical school after transferring to a four-year college or university. In many colleges, students must choose a major other than pre-medicine. Students often select a major which will provide an alternative career route should they change their occupational plans. Pre-medical students should obtain a copy of the Association of American Medical Colleges (AAMC) Admissions Requirements Handbook on pre-medical programs and the requirements for admission to AAMC-approved medical schools. A copy can be ordered through the Association of American Medical Colleges, Section for Student Services, Suite 201, 2450 N. Street, N.W., Washington, D.C. 20037.

GENERAL EDUCATION CORE (General education core credits in excess of 36 will transfer as general electives or courses related to the major. Each student's total of general education and required courses must equal at			Suggested Semester
least 60 semester ho		2	1
ENGL-101 ENGL-102	Introduction to Composition I	ა ე	1
Arts & Humanities	Introduction to Composition II Literature Core Course (see p. 56)	3 3 3 3	2 2 3 3
Alts & Hullidilities	Fine Arts Core Course (see p. 56)	ა ე	2
Listory	History Core Course (see p. 56)	2	ა 2
History Social Sciences	Social and Behavioral Sciences Core Course	J	3
Social Sciences	(see p. 57)	3	4
BIOL-101	General Biology I	4	1
BIOL-102	General Biology II	4	
CHEM-101	General Inorganic Chemistry I	4	2 1
CHEM-102	General Inorganic Chemistry II	4	2
Mathematics	MATH-133 or higher	3-5	1
Interdisciplinary	Interdisciplinary and Emerging Issues Core Course	3 3	'
interdiscipiinary	(see p. 57)	1-3	2
	(300 p. 37)	10	-
REQUIRED COURSES	RELATED TO MAJOR		
Mathematics	MATH-140 or higher	4	2
CHEM-201	Organic Chemistry I	4	3
PHYS-103	Fundamentals of Physics I	4	2 3 3
BIOL-201	Genetics	3	4
BIOL-202	Genetics Lab	1	4
CHEM-202	Organic Chemistry II	4	4
PHYS-104	Fundamentals of Physics II	4	4

### ARTS AND SCIENCES - Pre-Medical Technology ASSOCIATE IN ARTS DEGREE

Career opportunities for the medical technologist (clinical laboratory scientist) exist in many areas. Many of these allied health professionals are employed in labs in hospitals or government and industrial research facilities. The medical technologist performs laboratory diagnostic and therapeutic procedures to assist in the diagnosis, management and prevention of disease. Specializations include blood banking, chemistry, hematology, immunology and microbiology. Students will complete their professional studies at another institution where they will obtain a B.S. degree and become eligible to take the National Registry Exam given by the American Society for Clinical Pathologists. Students should become familiar with the entrance requirements of the professional school from which they plan to obtain their B.S. degree in order to plan a program of study at HCC that includes the appropriate electives.

general electives or	core credits in excess of 36 will transfer as courses related to the major. Each student's cation and required courses must equal at	Credits	Suggested Semester
ENGL-101	Introduction to Composition I	3	1
ENGL-102	Introduction to Composition II	3 3 3 3	ż
Arts & Humanities	Literature Core Course (see p. 56)	3	2 2 3 3
	Fine Arts Core Course (see p. 56)	3	3
History	History Core Course (see p. 56)	3	3
Social Sciences	Social and Behavioral Sciences Core Course		
	(see p. 57)	6	3-4
BIOL-101	General Biology I	4	1
BIOL-200	Microbiology	4	3
CHEM-101	General Inorganic Chemistry I	4	1
Mathematics	MATH-133 or higher	3-5	1
Interdisciplinary	Interdisciplinary and Emerging Issues Core Course (see p. 57)	1-3	2
REQUIRED COURSES	RELATED TO MAJOR		
CHEM-102	General Inorganic Chemistry II	4	2
MATH-138	Statistics	4	2
BIOL-203	Anatomy and Physiology I	4	3 3
CHEM-201	Organic Chemistry I	4	
BIOL-201	Genetics	3	4
BIOL-202	Genetics Lab	1	4
BIOL-204	Anatomy and Physiology II	4	4
CHEM-202	Organic Chemistry II	4	4

# ARTS AND SCIENCES - Pre-Nuclear Medicine Technology ASSOCIATE IN ARTS DEGREE

Highly qualified allied health professionals are needed to respond to the increasing health needs of a growing population. The nuclear medicine technologist is a highly specialized health care professional who works closely with the nuclear medicine physician. The nuclear medicine technology program emphasizes science and liberal arts courses that are required for transfer to the Johns Hopkins Hospital Nuclear Medicine Technology Program. Students should become familiar with the entrance requirements of the Nuclear Medicine Technology Program at Johns Hopkins Hospital.

GENERAL EDUCATION CORE (General education core credits in excess of 36 will transfer as general electives or courses related to the major. Each student's total of general education and required courses must equal at least 60 semester hours of credit.)			Suggested Semester
ENGL-101	Introduction to Composition I	3	1
ENGL-102	Introduction to Composition II	3	
Arts & Humanities	Literature Core Course (see p. 56)	3	2
7 it 5 & Framanitios	Fine Arts Core Course (see p. 56)	3 3 3	2 2 2 3
History	History Core Course (see p. 56)	3	3
Social Sciences	Social and Behavioral Sciences Core Course	Ü	Ü
000.01.000	(see p. 57)	3	4
PSYC-101	General Psychology	3	2
BIOL-101	General Biology I	4	1
BIOL-203	Anatomy and Physiology I	4	2
CHEM-101	General Inorganic Chemistry I	4	1
Mathematics	MATH-133 or higher	3-5	1
CMSY-110	Software Applications for Micros	3	4
REQUIRED COURSES	RELATED TO MAJOR		
SPCH-110	Interpersonal Communication	3	2 3
BIOL-204	Anatomy and Physiology II	4	3
CHEM-104	Fundamentals of Organic and Biochemistry OR		
CHEM-201	Organic Chemistry I	4	3
OFFI- 290	Medical Terminology	2	3
PHYS-103	Fundamentals of Physics I	4	3 3 3 4
MATH-138	Statistics	4	4
PHYS-104	Fundamentals of Physics II	4	4

### ARTS AND SCIENCES - Pre-Optometry ASSOCIATE IN ARTS DEGREE

Optometrists play a significant role in providing eye care both in private offices as well as in group practices and government or industrial facilities. This program is designed to prepare students who plan to apply for admission to a school of optometry. Some optometric colleges admit students after two years of college, but successful admission often requires a bachelor's degree or higher. For their bachelor's degree, many students select a major which will provide an alternative career route should they change their occupational plans. The pre-optometry curriculum provides a foundation for both optometric studies as well as for a future major in the life sciences, chemistry, or related fields. Students interested in this curriculum are advised to check the requirements of the institution to which they intend to transfer.

GENERAL EDUCATION CORE (General education core credits in excess of 36 will transfer as general electives or courses related to the major. Each student's total of general education and required courses must equal at			Suggested Semester
least 60 semester ho			
ENGL-101	Introduction to Composition I	3 3 3 3	1
ENGL-102	Introduction to Composition II	3	2
Arts & Humanities	Literature Core Course (see p. 56)	3	2
	Fine Arts Core Course (see p. 56)	3	2 2 3 3
History	History Core Course (see p. 56)	3	3
Social Sciences	Social and Behavioral Sciences Core Course		
	(see p. 57)	3	4
BIOL-101	General Biology I	4	1
BIOL-102	General Biology II	4	2 1 2
CHEM-101	General Inorganic Chemistry I	4	1
CHEM-102	General Inorganic Chemistry II	4	2
Mathematics	MATH-133 or higher	3-5	1
Interdisciplinary	Interdisciplinary and Emerging Issues Core Course (see p. 57)	1-3	2
REQUIRED COURSES	RELATED TO MAJOR		
Mathematics	MATH-140 or higher	4	2
BIOL-200	Microbiology	4	2 3 3 3 4
CHEM-201	Organic Chemistry I	4	3
PHYS-103	Fundamentals of Physics I	4	3
CHEM-202	Organic Chemistry II	4	
PHYS-104	Fundamentals of Physics II	4	4

### ARTS AND SCIENCES - Pre-Pharmacy ASSOCIATE IN ARTS DEGREE

Pharmacists dispense drugs and medicines prescribed by physicians and dentists, advise on the proper use and proper dosage of prescription and nonprescription medicines, and work in research and marketing positions. Job opportunities exist in hospitals and clinics, community pharmacies, the pharmaceutical industry and in government agencies. The pre-pharmacy curriculum below includes the science, math and liberal arts electives that are pre-requisites for admission into pharmacy programs at transfer institutions. Students should become familiar with the pre-requisite entrance requirements of the transfer institution from whiwhich theythey intend to receive their professional degree in order to plan a program of study at HCC that includes the appropriate electives.

GENERAL EDUCATION CORE (General education core credits in excess of 36 will transfer as general electives or courses related to the major. Each student's total of general education and required courses must equal at least 60 semester hours of credit.)			Suggested Semester
ENGL-101	Introduction to Composition I	3	1
ENGL-102	Introduction to Composition II	3	2
Arts & Humanities	Literature Core Course (see p. 56)	3	2
	Fine Arts Core Course (see p. 56)	3 3 3 3	2 3 3
History	History Core Course (see p. 56)	3	3
Social Sciences	Social and Behavioral Sciences Core Course		
	(see p. 57)	6	4
BIOL-101	General Biology I	4	1
CHEM-101	General Inorganic Chemistry I	4	1
CHEM-102	General Inorganic Chemistry II	4	2
MATH-140	Calculus I	4	1
Interdisciplinary	Interdisciplinary and Emerging Issues Core Course (see p. 57)	1-3	2
REQUIRED COURSES	S RELATED TO MAJOR		
MATH-138	Statistics	4	2
CHEM-201	Organic Chemistry I	4	3 3
PHYS-103	Fundamentals of Physics I	4	
BIOL-200	Microbiology	4	4
CHEM-202	Organic Chemistry II	4	4
PHYS-104	Fundamentals of Physics II	4	4

# ARTS AND SCIENCES - Pre-Veterinary Medicine ASSOCIATE IN ARTS DEGREE

Veterinarians are important health professionals who are employed in a variety of settings including privately owned practices, group practices, and government or industrial facilities. This program is designed to prepare students who plan to apply for admission to veterinary school. Students who have not already earned a B.S. or B.A. will apply to veterinary school after transferring to a four-year college or university. In many colleges, students must choose a major other than pre-veterinary medicine. Students often select a major which will provide an alternative career route should they change their occupational plans. The pre-veterinary curriculum prepares students for both veterinary school as well as for bachelor's degrees in the life sciences, chemistry, or related fields. Pre-veterinary students should obtain a copy of admissions requirements for U.S. and Canadian veterinary schools available through the American Veterinary Medical Colleges, 1522 K Street, Washington, D.C. 20036.

GENERAL EDUCATION CORE (General education core credits in excess of 36 will transfer as or general electives or courses related to the major. Each student's total of general education and required courses must equal at		Credits	Suggested Semester
least 60 semester ho		2	1
ENGL-101 ENGL-102	Introduction to Composition I	S S	2
Arts & Humanities	Introduction to Composition II Literature Core Course (see p. 56)	3 3 3 3	2
Alts & Hullidillies	Fine Arts Core Course (see p. 56)	ა 2	2 3 3
History	History Core Course (see p. 56)	2	ა ე
History Social Sciences	Social and Behavioral Sciences Core Course	3	3
Social Sciences	(see p. 57)	3	4
BIOL-101	General Biology I	4	1
BIOL-102	General Biology II	4	
CHEM-101	General Inorganic Chemistry I	4	2 1 2
CHEM-102	General Inorganic Chemistry II	4	2
Mathematics	MATH-133 or higher	3-5	1
Interdisciplinary	Interdisciplinary and Emerging Issues Core Course	3 3	'
interdiscipinal y	(see p. 57)	1-3	2
	(300 p. 37)	1 3	2
REQUIRED COURSES	RELATED TO MAJOR		
Mathematics	MATH-140 or higher	4	2
CHEM-201	Organic Chemistry I	4	3
PHYS-103	Fundamentals of Physics I	4	2 3 3
BIOL-201	Genetics	3	4
BIOL-202	Genetics Lab	1	4
CHEM-202	Organic Chemistry II	4	4
PHYS-104	Fundamentals of Physics II	4	4

### ARTS AND SCIENCES - Psychology ASSOCIATE IN ARTS DEGREE

This curriculum is designed as a guide to students planning to transfer to a four-year institution to complete a bachelor's degree in psychology. There are many diversified fields in psychology including social psychology, developmental psychology, individual differences, counseling, clinical psychology, industrial psychology, experimental psychology, and physiological psychology. This psychology curriculum emphasizes an understanding of the major theories, concepts, and facts of psychology. Students are encouraged to apply their learning to a better understanding of their own experiences. Students will also develop the writing and thinking skills which are necessary for success at four-year institutions.

GENERAL EDUCATION CORE (General education core credits in excess of 36 will transfer as general electives or courses related to the major. Each student's total of general education and required courses must equal at least 60 semester hours of credit.)			Suggested Semester
ENGL-101	Introduction to Composition I	3	1
ENGL-102	Introduction to Composition II	3 3 3 3	
Arts & Humanities	Literature Core Course (see p. 56)	3	2 3 4 2
7 11 10 00 11 10 11 11 11 10 10	Fine Arts Core Course (see p. 56)	3	4
	Humanities Core Course (Recommend PHIL-101)	3	2
History	History Core Course (see p. 56)	3	1
Social Sciences	Social and Behavioral Sciences Core Courses		
	(Recommend SOCI-101 and PSYC-101)	6	1-2
Science  Mathematics	Science Core Course (see p. 57 - must include one course with lab) Recommend BIOL-101 and BIOL-201 (Genetics) MATH-122 or higher	7-8 3-5	1-2 1
Interdisciplinary	Interdisciplinary and Emerging Issues Core Course (see p. 57)	2-3	4
REQUIRED COURSES	RELATED TO MAJOR		
Arts and Sciences	Arts and Sciences Electives (see p. 58)	3	1-2
MATH-138	Statistics	4	4
SPCH-105	Fundamentals of Public Speaking	3 3 3 3	2 3 4 3
PHIL-202	Logical and Critical Thinking	3	3
PSYC-102	Advanced General Psychology	3	4
PSYC-202	Social Psychology	3	
PSYC-203	Abnormal Psychology	3	4
English	Any course with an ENGL or MASS prefix (Course must be 200 level or higher)	3	3

# ARTS AND SCIENCES - Social Sciences ASSOCIATE IN ARTS DEGREE

This curriculum is designed as a guide to students planning to transfer to a four-year institution to complete a bachelor's degree in the social sciences. Geography, history, political science, pre-law, etc. students are advised to check the requirements of the institution to which they intend to transfer.

GENERAL EDUCATION CORE (General education core credits in excess of 36 will transfer as general electives or courses related to the major. Each student's total of general education and required courses must equal at least 60 semester hours of credit.)			Suggested Semester
ENGL-101	Introduction to Composition I	3	1
ENGL-102	Introduction to Composition II	3	2
Arts & Humanities	Literature Core Course (see p. 56)	3 3 3	2 3 4 1
	Fine Arts Core Course (see p. 56)	3	4
	SPCH-105 Fundamentals of Public Speaking	3	1
History	History Core Course (see p. 56)	3	1
Social Sciences	Social and Behavioral Sciences Core Courses (Recommend completion of History sequence and		
	PSYC-101)	6	2-3
Science	Science Core Course (see p. 57; must include one		
	course with lab)	7-8	3-4
Mathematics	MATH-122 or higher	3-5	1
Interdisciplinary	Interdisciplinary and Emerging Issues Core Course	2.2	2
	(see p. 57)	2-3	3
REQUIRED COURSES			
Humanities	Humanities Elective (see p. 58)	3 3	2
SOCI-101	Introduction to Sociology	3	2
POLI-101	American Federal Government	3	1
Arts and Sciences	Arts and Sciences Electives (see p. 58) (Foreign		
	Language Sequence is recommended)	6-8	3-4
POLI-102	State and Local Government OR		
POLI-201	Comparative Government	3	4
English	Any course with an ENGL or MASS prefix		
v	(Course must be 200 level or higher)	6	3-4

### ARTS AND SCIENCES – Social Sciences (American Studies) ASSOCIATE IN ARTS DEGREE

This curriculum is designed as a guide to students planning to transfer to a four-year institution to complete a bachelor's degree in the Social Sciences, emphasizing American Studies. This curriculum prepares students for careers requiring a broad knowledge of American culture which may include teaching, public service, history, government and corporate archival work, law, journalism, and social work. Geography, history, political science, prelaw, etc., students are advised to check the requirements of the institution to which they intend to transfer.

general electives or o	ore credits in excess of 36 will transfer as courses related to the major. Each student's	Credits	Suggested Semester
least 60 semester ho	ation and required courses must equal at		
ENGL-101	Introduction to Composition I	3	1
ENGL-102	Introduction to Composition II	3 3 3 3	1 2 3 3
Arts & Humanities	Literature Core Course (see page 56)	3	3
	Fine Arts Core Course (see page 56)	3	3
	SPCH-105 Fundamentals of Public Speaking	3	1
History	History Core Course (see p. 56)		
,	(Recommended: HIST-111, HIST-112)	3	1
Social Sciences	Social and Behavioral Sciences Core Courses		
	(Recommended completion of History 111, 112		
	sequence, HIST-226, and PSYC-101)	6	2-3
Science	Science Core Course (see p. 57; must include one		
	course with lab)	7-8	3-4
Mathematics	MATH-122 or higher	3-5	1
Interdisciplinary	Interdisciplinary and Emerging Issues Core Course		
	(see p. 57) (Recommended: ANTH-120, CMSY-129,	2.2	2
	WMST-111, WMST-225, WMST-227)	2-3	3
REQUIRED COURSES I	DELATED TO MA IOD		
Humanities	Humanities Elective (see p. 58) Recommended		
Tiurnamiles	MASS-129, MUSC-108, PHIL-202)	3	2
SOCI-201 or HIST-205	Minorities in American Society or A History of Race	J	2
3001201 01 11131 200	and Ethnicity in the United States	3	2
POLI-101	American Federal Government	3	1
Arts and Sciences	Arts and Sciences Electives (see p. 58)	Ü	•
7 11 10 41 14 001011000	(Recommended: HIST-221, HIST-226, SOCI-101,		
	SOCI-102, SOCI-103, SOCI-201, SOCI-202, Foreign		
	Language sequence)	6-8	3-4
POLI-102	State and Local Government	3	4
English or Mass Media	Any course with an ENGL or MASS prefix (Course		
•	must be 200 level or higher; Recommended: ENGL-20	1,	
	ENGL-202, ENGL-206, ENGL-208, MASS-210, MASS-221	) 6	3-4

# ARTS AND SCIENCES – Social Sciences (International Studies) ASSOCIATE IN ARTS DEGREE

This curriculum is designed as a guide to students planning to transfer to a four-year institution to complete a bachelor's degree in the Social Sciences, emphasizing International Studies. This curriculum prepares students for a variety of careers which may include government, foreign service, and international business. Geography, history, political science, pre-law, etc., students are advised to check the requirements of the institution to which they intend to transfer.

general electives or		Credits	Suggested Semester
least 60 semester ho	urs of credit.)		
ENGL-101	Introduction to Composition I	3	1
ENGL-102	Introduction to Composition II	3 3 3	2 3 3 1
Arts & Humanities	Literature Core Course (see page 56)	3	3
	Fine Arts Core Course (see page 56)	3	3
	SPCH-105 Fundamentals of Public Speaking	3	1
History	History Core Course (see p. 56) (Recommended:	•	•
	HIST-121, HIST-122, HIST-123)	3	1
Social Sciences	Social and Behavioral Sciences Core Courses	Ü	·
000101 001011003	(Recommended completion of History sequence,		
	HIST-121, HIST-122, HIST-123, and HIST-201, HIST-21	1	
	HIST-213)	', 6	2-3
Science	Science Core Course (see p. 57, must include one	U	2 3
Science	course with lab)	7-8	3-4
Mathematics	MATH-122 or higher	3-5	1
Interdisciplinary	Interdisciplinary and Emerging Issues Core Course	J-J	'
interdiscipinary	(see p. 57) (Recommended: ANTH-120, WMST-228)	2-3	3
	(see p. 57) (Recommended, ANTTI-120, WWS1-220)	2-3	3
REQUIRED COURSES	PELATED TO MA IOR		
Humanities	Humanities Elective (see p. 58) (Recommended:		
Tidifidifities	PHIL-201)	3	2
SOCI-101 or 102	Introduction to Sociology or Social Problems	3	2
GEOG-101	Elements of Cultural Geography	3	2 1
Arts and Sciences	Arts and Sciences Electives (see p. 58)	J	1
Arts and sciences			
	Recommended: ANTH-105, CMSY-129, ECON-205,	6-8	3-4
POLI-201	GEOG-201, PHIL-202, Foreign Language Sequence)	3	3-4 4
	Comparative Government	3	4
English	Any course with an ENGL or MASS prefix)	6	3-4
	(Recommended: ENGL-205, 224, 225)	U	J <del>-4</del>

### ARTS AND SCIENCES - Theatre (Performance) ASSOCIATE IN ARTS DEGREE

This curriculum is designed as a guide to students planning to transfer to a four-year institution to complete a bachelor's degree in theatre. Students are advised to check the requirements of the institution to which they intend to transfer. The main emphasis in the theatre program is the creation of an artistic point of view on the part of the student. Students may choose between two concentrations, performance and technical theatre. Letters of Recognition are also available in both concentrations.

GENERAL EDUCATION CORE (General education core credits in excess of 36 will transfer as general electives or courses related to the major. Each student's total of general education and required courses must equal at least 60 semester hours of credit.)			Suggested Semester
ENGL-101	Introduction to Composition I	3	1
ENGL-102	Introduction to Composition II	3 3 3 3	2
Arts & Humanities	Literature Core Course (see p. 56)	3	4
7 it 5 a Frantalitios	THET-190 Theatre History I	3	i
	THET-191 Theatre History II	3	2
History	History Core Course (see p. 56)	3	1
Social Sciences	Social and Behavioral Sciences Core Courses	3	
Joelal Jeleflees	(see p. 57)	6	3-4
Science	Science Core Course (see p. 57; must include one	U	3 7
Science	course with lab)	7-8	2-3
Mathematics	MATH-122 or higher	3-5	1
Interdisciplinary	Interdisciplinary and Emerging Issues Core Course	3 3	'
interdiscipiinary	(see p. 57)	1-3	2
	(300 p. 37)	13	2
REQUIRED COURSES	RELATED TO MAJOR		
THET-141	Basic Acting I	3	1
THET-142	Basic Acting II	3	2 2 2
THET-160	Theatre Practicum	1	2
Dance	Any Course with a DANC prefix	1	2
FILM-171	Introduction to American Cinema OR		
FILM-172	Introduction to Foreign Cinema	2	2
Humanities	Humanities Elective (see p. 58)	3 3 3	3 3 4
Technical Theatre		ა ე	J 2
	THET-135, THET-136 or THET-137	3	3
THET-241	Acting for Television	3	4
Fine Arts	Any Course with an ARTT, FINE or MUSC prefix	3	4
Performing Arts	Any Course with a DANC, FINE, FILM, MASS or	3	4
	THET prefix	3	4

### ARTS AND SCIENCES - Theatre (Performance) LETTER OF RECOGNITION

THET-141 THET-142 THET-241 THET-160	Basic Acting I Basic Acting II Acting for Television Theatre Practicum (Acting) OR Dance Elective	3 3 3
	OR Vocal Music Elective	1-2

### ARTS AND SCIENCES - Theatre (Technical) ASSOCIATE IN ARTS DEGREE

This curriculum is designed as a guide to students planning to transfer to a four-year institution to complete a bachelor's degree in theatre. Students are advised to check the requirements of the institution to which they intend to transfer. The main emphasis in the theatre program is the creation of an artistic point of view on the part of the student. Students may choose between two concentrations, performance and technical theatre. Letters of Recognition are also available in both concentrations.

CENTERAL EDUCATION CORE

GENERAL EDUCATION	N CORE		Suggested
(General education of	ore credits in excess of 36 will transfer as	Credits	
	ourses related to the major. Each student's		
	ation and required courses must equal at		
least 60 semester hou			
ENGL-101	Introduction to Composition I	3	1
ENGL-102	Introduction to Composition II	3	2
Arts & Humanities	Literature Core Course (see p. 56)	3 3 3 3 3	2 4 1 2
	THET-190 Theatre History I	3	1
	THET-191 Theatre History II	3	2
History	History Core Course (see p. 56)	3	1
Social Sciences	Social and Behavioral Sciences Core Courses		
	(see p. 57)	6	3-4
Science	Science Core Course (see p. 57; must include one		
	course with lab)	7-8	2-3
Mathematics	MATH-122 or higher	3-5	1
Interdisciplinary	Interdisciplinary and Emerging Issues Core Course		
	(see p. 57)	1-3	2
REQUIRED COURSES F	RELATED TO MAJOR - TECHNICAL THEATRE		
THET-135	Stagecraft I	3	1
THET-136	Lighting I	3 3	2
THET-160	Theatre Practicum	ī	2
FILM-171	Introduction to American Cinema	•	_
	OR		
FILM-172	Introduction to Foreign Cinema	3	3
THET-141	Basic Acting I	3	3 3 3 3
THET-161	Theatre Practicum	1	3
Humanities	Humanities Elective (see p. 58)	3	3
THET-137	Sound I	3	4
Performing Arts	Any Course with a DANC, FINE, FILM, MASS or		
ÿ ··	THET prefix	3	4
Fine Arts	Any Course with an ARTT, DANC, FINE or MUSC		
	prefix	3	4

### ARTS AND SCIENCES - Theatre (Technical) LETTER OF RECOGNITION

Theatre Practicum	1
OR	
Lighting I OR	
Sound I	6
Theatre Practicum	1
Theatre Practicum	1
Theatre Practicum	1
	Stagecraft I OR Lighting I OR Sound I Theatre Practicum Theatre Practicum

#### **BUSINESS ADMINISTRATION**

ASSOCIATE IN ARTS DEGREE

#### Accounting, Business Administration, Fashion Merchandising

In a business environment growing more complex and global, some knowledge of business and management theory is more of an asset than ever before. This business administration curriculum will prepare students to transfer to a four-year program in business and management with eventual entry into all areas of business, from manufacturing through retailing and including accounting, marketing, finance, banking, transportation, and international business. Students in this two-year program will get the broad-based liberal education required for the first two years of a baccalaureate program. At the same time, they will be introduced to several areas of business and management theory and practice.

GENERAL EDUCATION CORE (General education core credits in excess of 36 will transfer as general electives or courses related to the major. Each student's total of general education and required courses must equal at least 60 semester hours of credit.)			Suggested Semester
ENGL-101	Introduction to Composition I	3	1
ENGL-102	Introduction to Composition II	3	
Arts & Humanities	Literature Core Course (see p. 56)	3	3
7 it is a Framidimites	Fine Arts Core Course (see p. 56)	3	4
	SPCH-105 Fundamentals of Public Speaking	3 3 3	2 3 4 4 3 2
History	History Core Course (see p. 56)	3	3
ECON-101	Macro Economics	3	2
ECON-102	Micro Economics	3	3
Science	Science Core Course (see p. 57 - must include one		
	course with lab)	7-8	3-4
MATH-145	Business Calculus	3	2
Interdisciplinary	Interdisciplinary and Emerging Issues Core Course (see p. 57)	1-3	2
REQUIRED COURSES	RELATED TO MAJOR		
ACCT-111	Principles of Accounting I	3	1
BMGT-100	Introduction to Business and Organization	3	1
CMSY-110	Software Applications for Micros	3	1
ACCT-112	Principles of Accounting II	3	2
BMGT-151*	Business Law I	3	4
MATH-138	Statistics	4	4
Arts and Sciences	Arts and Sciences Electives (see p. 58)	6	1-2

<sup>\*</sup>Fashion Merchandising majors should take RETL-103 or RETL-105.

Students can complete the entire Associate in Arts Degree in Business Administration online or through a combination of online courses and telecourses (see page 22).

### **BUSINESS ADMINISTRATION**

#### **ASSOCIATE IN ARTS DEGREE**

#### **Information Systems Management**

Since the use of computers has become increasingly commonplace, the need for personnel to help government and industry utilize this tool more effectively continues to grow. Some of the occupations which rely on a firm knowledge of computer systems are programmer, information center specialist, liaison with user departments, and office automation analyst. Students may select one of the four tracks: Microcomputer, Computer Networking, Systems Analysis and Health Care. This program is designed to transfer to UMBC where various upper level courses would then be taken.

GENERAL EDUCATION CORE (General education core credits in excess of 36 will transfer as general electives or courses related to the major. Each student's total of general education and required courses must equal at			Suggested Semester
least 60 semester ho ENGL-101	Introduction to Composition I	3	1
ENGL-102 Arts & Humanities	Introduction to Composition II Literature Core Course (see p. 56)	3 3 3	2 3
Aits & Fullianties	Fine Arts Core Course (see p. 56)	3	4
History	SPCH-105 Fundamentals of Public Speaking History Core Course (see p. 56)	3	4 1
ECON-101	Macro Economics	3	1 2 3
ECON-102 Science	Micro Economics Science Core Course (see p. 57 - must include one	3	3
Mathamatica	course with lab)	7-8	3-4
Mathematics Interdisciplinary	MATH-140 or higher Interdisciplinary and Emerging Issues Core Course	3-5	2
, ,	(see p. 67)	1-3	1
REQUIRED COURSES	RELATED TO MAJOR		
Microcomputer Track CMSY-120	Introduction to Computer Systems	3	1
CMSY-121	Structured Logic and Program Design	3	1
MATH-133 ACCT-111	College Trigonometry Principles of Accounting I	3	1
CMSY-190	Introduction to Visual Basic	3 3 3	2
ACCT-112 MATH-138	Principles of Accounting II Statistics	3 4	2 2 3 3
CMSY-250	Systems Analysis and Design	3	4
MAMT-140	Principles of Management	3	4
Systems Analysis Trac		2	1
ACCT-111 CMSY-121	Principles of Accounting I Structured Logic and Program Design	3 3	1 1
ACCT-112 CMSY-181	Principles of Accounting II Introduction to C++ Programming	3 4	2
CMSY-281	Advanced C++ Programming	4	2 3 3
MAMT-140 CMSY-250	Principles of Management Systems Analysis and Design	3	3 4
CMSY Elective	CMSY Programming Course (see p. 58)	3-4	4

### **BUSINESS ADMINISTRATION**

#### **ASSOCIATE IN ARTS DEGREE**

### **Information Systems Management (continued)**

COURSES RELATED TO	O MAJOR	Credits	Suggested Semester
Computer Networkin ACCT-111 CMSY-121 ACCT-112 CMSY-181 CMSY-281 CMSY-250	g Track Principles of Accounting I Structured Logic and Program Design Principles of Accounting II Introduction to C++ Programming Advanced C++ Programming Systems Analysis and Design	3 3 4 4	1 1 2 2 3 4
MAMT-140 Elective Health Care Track	Principles of Management Arts and Sciences Elective (see p. 58)	3 3	4 4 3
CMSY-121 CMSY-181 CMSY-281 MAMT-140 CMSY-250 Elective	Structured Logic and Program Design Introduction to C++ Programming Advanced C++ Programming Principles of Management Systems Analysis and Design Arts and Sciences Elective (see p. 58)	3 4 4 3 3 6-7	1 2 3 3 4 2-4

### COMPUTER SCIENCE ASSOCIATE IN ARTS DEGREE

The growing emphasis on technology has increased the demand for programmers in both a diverse range of application and systems development environments. This curriculum prepares students for programming in environments such as engineering, scientific employment, government and education. The computer science program emphasizes algorithm/modular design, structured programming techniques, program debugging and structured walkthrough skills, and group interaction. This curriculum has been designed to fit with similar programs at Towson University and at the University of Maryland Baltimore County (UMBC).

general electives or total of general educ	core credits in excess of 36 will transfer as courses related to the major. Each student's cation and required courses must equal at	Credits	Suggested Semester
least 60 semester ho			
ENGL-101	Introduction to Composition I	3 3 3 3	1
ENGL-102	Introduction to Composition II	3	2
Arts & Humanities	Literature Core Course (see p. 56)	3	2 2 1 3
	Fine Arts Core Course (see p. 56)	3	1
	SPCH-105 Fundamentals of Public Speaking	3	
History	History Core Course (see p. 56)	3	4
Social Sciences	Social and Behavioral Sciences Core Course		
	(see p. 57)	6	3-4
Science	Science Core Course (see p. 57; Students should take		
	a two-course sequence such as BIOL-101, BIOL-102 o	r	
	CHEM-101, CHEM-102 or PHYS-111, PHYS-112)	8	1-4
Mathematics	MATH-140 or higher	4	1
Interdisciplinary	Interdisciplinary and Emerging Issues Core Course		
	(see p. 57)	1-3	3
REQUIRED COURSES			
CMSY-141	Computer Science I	4	1
CMSY-171	Computer Science II	4	2
MATH-150	Calculus II	4	2
CMSY-220	Assembly Language	3 3	3
MATH-220	Discrete Structures		2 3 2 3
MATH-250	Linear Algebra	4	
Elective	Arts and Sciences Electives (see p. 58)	3	4

### COMPUTER SCIENCE ASSOCIATE IN ARTS DEGREE

#### **Internet Technologies**

The rapid growth of the internet has resulted in a demand for computer science majors with experience with the internet and related technologies. This curriculum prepares students for working with the internet in public and private businesses, emphasizing practical and business aspects of internet technologies, including designing and managing web applications. This curriculum has been designed to fit with similar programs at University of Maryland University College (UMUC) and University of Maryland College Park (UMCP).

Students are encouraged to take "online" sections of courses within the program.

general electives or total of general educ	core credits in excess of 36 will transfer as courses related to the major. Each student's cation and required courses must equal at	Credits	Suggested Semester
least 60 semester ho ENGL-101 ENGL-102 Arts & Humanities	Introduction to Composition I Introduction to Composition II Literature Core Course (see p. 56) FINE-102 Arts, Cultures, and Ideas	3 3 3 3	1 2 2 3 4 4
History Social Science Science	Humanities Core Course (see p. 56) History Core Course (see p. 56) Social and Behavioral Science Core (see p. 57) Science Core Courses (students should take a course sequence such as BIOL-101, BIOL-102 or CHEM-101,	3 3	4 4 2
Mathematics CMSY-129	CHEM-102 or PHYS-103, PHYS-104) Math Core Course Principles of Internet I	8 3-4 3	1–4 1 1
REQUIRED COURSES CMSY-133 CMSY-139 CMSY-137 CMSY-138 Electives	RELATED TO MAJOR Avatars and Virtual Worlds Doing Business on the Internet Doing Research on the Internet Information Systems and Computer Apps Internet Electives*	3 3 3 3 13	2 2 3 3 3-4
*Internet Electives:	Ebusiness and Ecommerce Webcasting Java Programming Active Server Pages Digital Imaging LAN Concepts Website Planning, Implementation, and Management Javascript Visual Design and the Internet	3 3 3 3 1 1	
	Web Graphics Web Page Creation Visual Basic Intermediate Basic	1 1 3 3	

### ENGINEERING ASSOCIATE IN ARTS DEGREE

The rapid broadening of the scope of engineering has increased the demand for trained professionals who understand the significance of these advances and creatively apply the skills of high technology to improve the quality of life. There are many diversified fields in engineering including the classical fields of civil, mechanical, electrical/electronic, industrial and chemical, as well as biomedical, communications, ceramic and agricultural. Lately, major strides are made in the environmental and computer engineering fields, and aerospace engineering is about to reach new dramatic heights in the near future with the establishment of orbiting space stations and colonies on the moon. Students interested in this curriculum are advised to check the requirements of the institution to which they intend to transfer.

GENERAL EDUCATION CORE (General education core credits in excess of 36 will transfer as general electives or courses related to the major. Each student's total of general education and required courses must equal at least 60 semester hours of credit.)			Suggested Semester
ENGL-101	Introduction to Composition I	3	1
ENGL-102	Introduction to Composition II	3 3 3 3	2
Arts & Humanities	Literature Core Course (see p. 56)	3	4
	Fine Arts Core Course (see p. 56)	3	4
History	History Core Course (see p. 56)	3	4
Social Sciences	Social and Behavioral Sciences Core Course	0	
CUEM 101	(see p. 57)	3	4
CHEM-101	General Inorganic Chemistry I	4 4	1
CHEM-102 PHYS-110	General Inorganic Chemistry II	4	2 1
PHYS-111	General Physics I (Calculus) General Physics II (Calculus)	4	2
MATH-140	Calculus I	4	1
Interdisciplinary	Interdisciplinary and Emerging Issues Core Course (see p. 57)	1-3	2
REQUIRED COURSES	RELATED TO MAJOR		
ENES-100	Introduction to Engineering Design	3	1
ENES-120	Statics	3	2 2 3 3 3 4
MATH-150	Calculus II	4	2
ENES-130	Dynamics	3	3
MATH-240	Calculus III	4	3
PHYS-112	General Physics III (Calculus)	3	3
ENES-140	Mechanics of Materials OR	3	4
ENES-160*	Systems and Circuits	3	4
ENIEC 101**	OR The same of the same is a	2	4
ENES-181** MATH-260	Thermodynamics Differential Faustions	3 3	4 4
IVIA I M-20U	Differential Equations	3	4

<sup>\*</sup>Electrical engineering students

<sup>\*\*</sup>Mechanical engineering students

### GENERAL STUDIES ASSOCIATE IN ARTS DEGREE

The general studies program is intended for students who are uncertain of their career plans or desire two years of a broad, general college education. This curriculum has been adapted to allow students to explore several different subject areas. Those who plan their course sequences with faculty advisors may prepare for either transfer or employment. Students are advised to check the requirements of the institution to which they intend to transfer.

				Suggested Semester	
	ENGL-101	Introduction to Composition I	3	1	
	ENGL-102	Introduction to Composition II	3		
	Arts & Humanities	Literature Core Course (see p. 56)	3 3 3 3	2 3 3 1	
		Fine Arts Core Course (see p. 56)	3	3	
		Humanities Core Course (see p. 56)	3	1	
	History	History Core Course (see p. 56)	3	1	
	Social Sciences	Social and Behavioral Sciences Core Courses (see p. 57)	6	1-2	
	Science	Science Core Course (see p. 57; must include one course with lab)	7-8	2-3	
	Mathematics	MATH-122 or higher	3-5	1	
	Interdisciplinary	Interdisciplinary and Emerging Issues Core Course		'	
		(see p. 57)	2-3	4	
	REQUIRED COURSES RELATED TO MAJOR Oral Communication Select one of the following: FINE-102, HMDV-100,				
	Ordi Communication	SPCH-105 or 110, THET-141)	3	3	
	Humanities	Humanities Electives (see p. 58)	6	3-4	
	Social Sciences	Social Sciences Elective (see p. 58)	6	2	
	Elective	General Electives	9	1-4	

Students can complete the entire Associate in Arts Degree in General Studies online or through a combination of online courses and telecourses (see page 22).

### TEACHER EDUCATION ASSOCIATE IN ARTS DEGREE

#### **Early Childhood Education**

In our society, all children are required to attend school, and teachers are needed to educate the future citizens of our country. This curriculum prepares students to transfer to an Early Childhood Education program at a four-year college or university without loss of credit, but students are advised to check the requirements of the institution to which they intend to transfer.

GENERAL EDUCATION (General education of general electives or of total of general educations of the series of the s	Credits	Suggested Semester		
ENGL-101	Introduction to Composition I	3	1	
ENGL-101	Introduction to Composition II	3	2	
Arts & Humanities	Literature Core Course (see p. 56)	3 3 3 3 3	2 3 1 2 1	
7 into a Francisco	Fine Arts Core Course (see p. 56)	3	ĺ	
	SPCH-105 Fundamentals of Public Speaking	3	2	
History	History Core Course (HIST-111 or HIST-112)		1	
PSYC-101	General Psychology	3	2	
Social Sciences	Social and Behavioral Sciences Core Course			
	(see p. 57)	3	2-4	
Science	Science Core Course One Biological Science (BIOL)			
	One Physical Science (CHEM, PHYS, GEOL, ASTR)	8	1-2	
Mathematics	MATH-127 or MATH-128	4	1-4	
Interdisciplinary	Interdisciplinary and Emerging Issues Core Course	2	1.4	
	(see p. 57)	3	1-4	
REQUIRED COURSES RELATED TO MAJOR:				
Humanities	Humanities Elective (see p. 58)	3	2	
Social Sciences	Social Sciences Electives (see p. 58)	6	4	
Arts and Sciences	Arts and Sciences Electives (Recommended: EDUC-11	1,		
	EDUC-130, EDUC-200, EDUC-201 or EDUC-270)	12	1-4	

Education requirements vary among transfer institutions and are currently being evaluated. It is essential to meet with your advisor regularly to be aware of program and certification changes.

Students in the Teacher Education Transfer Program are required to submit scores from Praxis I: Academic Skills Assessments to the Social Sciences Division prior to the completion of the 45th credit hour. The exam assesses basic reading, writing, and mathematics skills. Scores from Praxis I are used for admission to four-year Teacher Education programs and are required for Teacher Certification in Maryland and most other states. Students may take Praxis I in two different formats: Preprofessional Skills Test (PPST–paper and pencil format) or Computer-Based Test (CBT–on a computer). Maryland passing scores for the PPST are currently 177 in Math, 177 in Reading, and 173 in Writing. Maryland passing scores for the CBT are 322 in Math, 325 in Reading, and 319 in Writing.

### TEACHER EDUCATION

#### **ASSOCIATE IN ARTS DEGREE**

#### **Elementary Education**

In our society, all children are required to attend school, and teachers are needed to educate the future citizens of our country. This curriculum prepares students to transfer to an Elementary Education program at a four-year college or university. This curriculum is designed to prepare students to pursue a bachelor's degree program at the college or university level without loss of credit, but students are advised to check the requirements of the institution to which they intend to transfer.

GENERAL EDUCATION (General education of general education of total of general educations)	Credits	Suggested Semester			
least 60 semester ho			4		
ENGL-101	Introduction to Composition I	3 3	I		
ENGL-102	Introduction to Composition II		2 3 3 1		
Arts & Humanities	Literature Core Course (see page 56)	3	3		
	Fine Arts Core Course (see page 56)	3 3 3	3		
	SPCH-105 Fundamentals of Public Speaking	3	1		
History	History Core Course (HIST-111 or HIST-112)	3	1		
PSYC-101	General Psychology	3	2		
Social Sciences	Social and Behavioral Sciences Core Course				
000141 001011000	(see p. 57)	3	2-4		
Science	Science Core Courses One Biological Science (BIOL)				
	One Physical Science (CHEM, PHYS, GEOL, ASTR)	8	1-2		
Mathematics	MATH-127 or MATH-128	4	1-4		
Interdisciplinary	Interdisciplinary and Emerging Issues Core Course				
inter dieerpiintar y	(Recommended: CMSY-110 or HMDV-200)	3	3		
REQUIRED COURSES RELATED TO MAJOR:					
Humanities	Humanities Elective	3	3-4		
Social Sciences	Social Sciences Electives	6	4		
		Λ	4		
Arts and Sciences	Arts and Sciences Electives (Recommended: EDUC-11 EDUC-200, EDUC-201, EDUC-260 or EDUC-270)	u, 12	1-4		

Educational requirements vary among transfer institutions and are currently being evaluated. It is essential to meet with your advisor regularly to be aware of program and certification changes.

Students in the Teacher Education Transfer Program are required to submit scores from Praxis I: Academic Skills Assessments to the Social Sciences Division prior to the completion of the 45th credit hour. The exam assesses basic reading, writing, and mathematics skills. Scores from Praxis I are used for admission to four-year Teacher Education programs and are required for Teacher Certification in Maryland and most other states. Students may take Praxis I in two different formats: Preprofessional Skills Test (PPST–paper and pencil format) or Computer-Based Test (CBT–on a computer). Maryland passing scores for the PPST are currently 177 in Math, 177 in Reading, and 173 in Writing. Maryland passing scores for the CBT are 322 in Math, 325 in Reading, and 319 in Writing.

## 2000-2001 CURRICULA—TRANSFER PROGRAMS

## **TEACHER EDUCATION**

### **ASSOCIATE IN ARTS DEGREE**

## **Secondary Education**

Teachers are needed in our society to educate and prepare students to be useful and productive citizens. This curriculum prepares students to transfer to a Secondary Education program at a four-year college or university. This option allows the student to fulfill general education requirements and to pursue a major area of interest in the second year. As a Secondary Education student, you will be required to select a major at the four-year college or university. This curriculum is designed to prepare students to pursue a bachelor's degree program at the college or university level without loss of credit. Students are advised to check the requirements of the major and institution to which they intend to transfer.

GENERAL EDUCATION (General education of general electives or total of general educations	Credits	Suggested Semester	
ENGL-101		3	1
ENGL-102	Introduction to Composition II	3	2
Arts & Humanities	Literature Core Course (see p. 56)	3	3
	Fine Arts Core Course (see p. 56)	3	3
	SPCH-105 Fundamentals of Public Speaking	3	2 3 3 1 1
History	History Core Course (see p. 59)	3 3 3 3 3 3	1
PSYC-101	General Psychology	3	2
Social Sciences	Social and Behavioral Sciences Core Courses		2-4
Science	Science Core Courses	7-8	1-2
Mathematics Interdisciplinary	MATH-122 or higher Interdisciplinary and Emerging Issues Core Course (see p. 57)	3-5 3	1-4 3
DECLUDED ACUIDADA			
REQUIRED COURSES Humanities/Arts Trac			
Humanities/Arts*	Humanities/Arts Electives (see p. 58) OR	9	3-4
Social Sciences Track Social Sciences*	Social Sciences Electives (see p. 58) OR	9	3-4
Math/Science Track Math/Science*	Math/Science Electives (see p. 59)	8	3-4
Arts and Sciences**	Arts and Sciences Electives (see p. 58)	15	1-4

<sup>\*</sup>Secondary Education Tracks: Students must see an advisor to select those courses related to the subject area in which they want to teach.

Educational requirements vary among transfer institutions and are currently being evaluated. It is essential to meet with your advisor regularly to be aware of program and certification changes.

Students in the Teacher Education Transfer Program are required to submit scores from Praxis I: Academic Skills Assessments to the Social Sciences Division prior to the completion of the 45th credit hour. The exam assesses basic reading, writing, and mathematics skills. Scores from Praxis I are used for admission to four-year Teacher Education programs and are required for Teacher Certification in Maryland and most other states. Students may take Praxis I in two different formats: Preprofessional Skills Test (PPST–paper and pencil format) or Computer-Based Test (CBT–on a computer). Maryland passing scores for the PPST are currently 177 in Math, 177 in Reading, and 173 in Writing. Maryland passing scores for the CBT are 322 in Math, 325 in Reading, and 319 in Writing.

<sup>\*\*</sup>Recommended Arts and Sciences Electives: EDUC-110, EDUC-200, EDUC-202, EDUC-260 or EDUC-270.

## 2000-2001 CURRICULA—TRANSFER PROGRAMS

### **TEACHER EDUCATION**

# Professional Education Courses for Maryland Certification (For persons who already have a Bachelor's Degree)

This course of study is designed for persons who already have a Bachelor's Degree and wish to become a Certified Teacher in Maryland. Before enrolling in courses, students should have their college transcripts evaluated by the Maryland State Department of Education Division of Certification. This evaluation process is completed within 90 days of receiving all transcripts and more information is available by calling 410-767-0412. Upon receipt of the transcript evaluation, students may use the following charts to determine what courses Howard Community College offers that meet the MSDE Professional Education course requirements. Please note: 1) all certification areas require Maryland passing scores on the Praxis I: Academic Skills Assessments, 2) most certification areas require Maryland passing scores on the Praxis II: Subject Assessments, 3) all certification areas require documented teaching experience before an initial certificate is awarded, and 4) additional Professional Education courses may be required in some certification areas.

#### EARLY CHILDHOOD CERTIFICATION

HCC Course Equivalent	MSDE Course Requirement
EDUC-111 or HMDV-200	Child Development
EDITO 0/0	

EDUC-260 Human Learning EDUC-112 Teaching Methodology

EDUC-200 Inclusion of Special Needs Student Population

EDUC-265 Assessment of Students

EDUC-201 Reading
EDUC-203 Reading
EDUC-204 Reading
EDUC-205 Reading

### **ELEMENTARY 1-6 AND MIDDLE SCHOOL CERTIFICATION**

HCC Course Equivalent MSDE Course Requirement

EDUC-111 or HMDV-200 Child Development Human Learning EDUC-266 Teaching Methodology

EDUC-200 Inclusion of Special Needs Student Population

EDUC-265 Assessment of Students

EDUC-201 Reading
EDUC-203 Reading
EDUC-204 Reading
EDUC-205 Reading

# ACADEMIC SUBJECTS (N-12) AND (7-12) CERTIFICATION HCC Course Equivalent MSDE Course Requirement

PSYC-204 or HMDV-200 Adolescent Development EDUC-260 Human Learning EDUC-267 Teaching Methodology

EDUC-200 Inclusion of Special Needs Student Population

EDUC-265 Assessment of Students

EDUC-202 Reading EDUC-206 Reading

## 2000-2001 CURRICULA—TRANSFER PROGRAMS

### **TEACHER EDUCATION**

### Professional Education Courses for Maryland Certification (continued)

### GENERAL SPECIAL EDUCATION INFANT/PRIMARY (BIRTH-GRADE 3) CERTIFICATION

HCC Course Equivalent MSDE Course Requirement

EDUC-200 Historical, Philosophical, and Legal Foundations of Special Education

EDUC-111 and HMDV-200 Human Growth and Development

EDUC-265 Assessment, Diagnosis, and Prescriptive Techniques

EDUC-201 Reading
EDUC-203 Reading
EDUC-204 Reading
EDUC-205 Reading

### GENERIC SPECIAL EDUCATION ELEMENTARY/MIDDLE (GRADES 1-8) CERTIFICATION

HCC Course Equivalent MSDE Course Requirement

EDUC-200 Historical, Philosophical, and Legal Foundations of Special Education

EDUC-111 and/or Human Growth and Development

HMDV-200 and/or PSYC-204 (2 of 3)

EDUC-265 Assessment, Diagnosis, and Prescriptive Techniques

EDUC-201 Reading
EDUC-203 Reading
EDUC-204 Reading
EDUC-205 Reading

#### GENERIC SPECIAL EDUCATION SECONDARY/ADULT (GRADES 6-12) CERTIFICATION

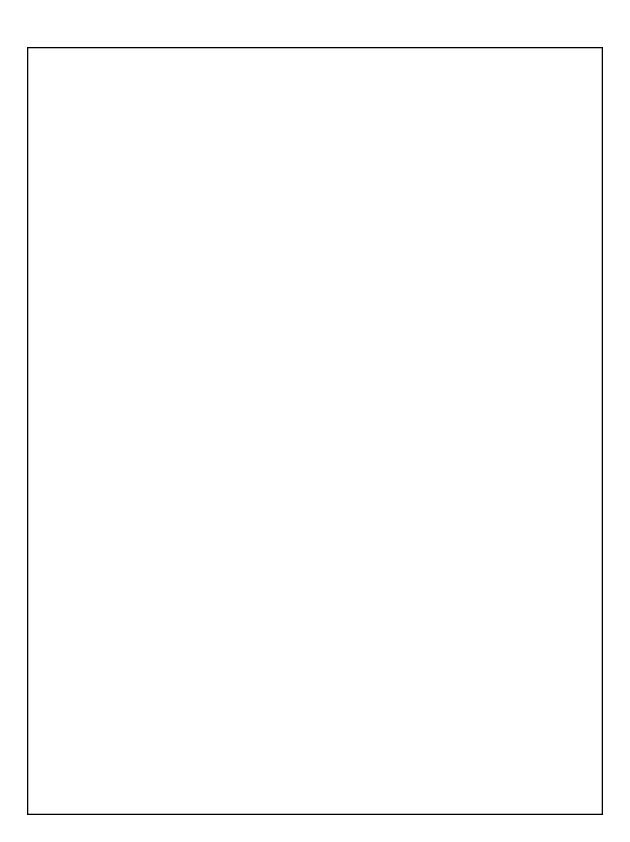
HCC Course Equivalent MSDE Course Requirement

EDUC-200 Historical, Philosophical, and Legal Foundations of Special Education

HMDV-200 and PSYC-204 Human Growth and Development

EDUC-265 Assessment, Diagnosis, and Prescriptive Techniques

EDUC-202 Reading EDUC-206 Reading



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of the cat	talogue and reference	chnology and Nursing ed in the career progr on completion of the	ram section becaus			

### **ACCOUNTING**

# PREPARATION FOR THE CPA EXAMINATION (For persons who already have a Bachelor's Degree)

This course of study is designed for students who already have a bachelor's degree and wish to meet the requirements of the 150-hour credit rule that became effective July 1, 1999. The 150-hour credit rule requires that a student accomplish a total of 150 credit hours of education that includes a bachelor's degree (any subject). The additional credits beyond the four-year degree are mostly to be taken as undergraduate, three-credit courses.\* Within the degree or in addition to the degree, the following courses must be completed.

COURSE		Credits
ACCT-111	Principles of Accounting I	3
ACCT-112	Principles of Accounting II	3
ACCT-211	Intermediate Accounting I	3
ACCT-212	Intermediate Accounting II	3
ACCT-215	Cost Accounting	3
ACCT-217	Tax Accounting	3
ACCT-219	Principles of Auditing	3
ACCT-221	Advanced Accounting	3
BMGT-130	Principles of Marketing	3
BMGT-151	Business Law I	3
CMSY-110**	Software Applications for Micros	3
ECON-101	Principles of Economics (Macro)	3
ECON-102	Principles of Economics (Micro)	3
MAMT-140	Principles of Management	3
MATH-138***	Statistics	4
SPCH-105	Fundamentals of Public Speaking	3
	Additional Accounting Course****	3
	Corporate or Business Finance****	3
	Business Ethics****	3
	Written Communication****	3

<sup>\*</sup>See the web site below for graduate level exceptions.

#### **General Information**

HCC does not offer all courses every semester or every year.

For more detailed information, visit the Maryland Board web site: www.dllr.state.md.us....choose "Occupational and Professional Information," click on "State Board of Public Accountancy" and scroll down.

For course planning assistance, email sbalcer@howardcc.edu.

<sup>\*\*</sup>The Board accepts other three-credit CMSY, DP, or IS courses. See details at their web site (below). CMSY-110 is recommended for students with no computer experience.

<sup>\*\*\*</sup>Be sure to review prerequisites for this math course.

<sup>\*\*\*\*</sup>These courses are not currently offered at HCC. They are planned for development in the future.

# BIOMEDICAL ENGINEERING TECHNOLOGY ASSOCIATE IN APPLIED SCIENCE DEGREE

This program prepares students to enter the important career of the biomedical engineering technologist working in hospitals or for equipment manufacturers in field service. High demand for graduates worldwide offers exciting opportunities to become a vital member of the health care delivery system. Graduates are qualified to maintain the technical equipment necessary in modern health care, to evaluate new equipment and to instruct in proper and safe use of the equipment. Theory in electrical, mechanical, fluidic, electronic, and biomedical circuits and systems with hands-on laboratory experience is stressed along with knowledge of modern health care delivery environment. This statewide program allows all Maryland residents in-county tuition. A one-year certificate of proficiency is available to prepare students for entry-level positions. An advanced certificate of proficiency, designed for individuals currently employed as electronic technicians and desiring a career change, is also offered.

GENERAL EDUCATION	I CORE	Credits	Suggested Semester
ENGL-101	Introduction to Composition I	3	1
Arts & Humanities	Arts & Humanities Core Course (see p. 56) (one course from either Literature, Fine Arts,		
	or Humanities)	3	2
	SPCH-105 Fundamentals of Public Speaking OR		
	SPCH-110 Interpersonal Communications	3	3
Social Sciences	Select GEOG-102, HIST-111, HIST-112, HIST-121,		
	HIST-122, HIST-123, POLI-201, SOCI-101, or SOCI-105	3	4
PHYS-100	Technical Physics	4	i
MATH-124	Technical Math	4	1
REQUIRED COURSES R	FLATED TO MA IOR		
ELEC-107	Introduction to Electronic Circuits	4	1
HEAL-110	The Health Care Professional	2	i
HEAL-112*	Health Care Professional Lab	1	1
BMET-112	Electro-Mechanical-Fluidic Devices I	3	2
BIOL-106	Basic Anatomy and Physiology:		
	Biomedical Emphasis	4	2
ELEC-114	Semiconductor Devices	3	2 2 3 3 3 3
BMET-211	Biomedical Instrumentation I	5	3
CMSY-105	Personal Computer Systems Repair I	3	3
ELEC-211	Analog Circuits	4	3
ELEC-213	Digital Circuits	4	
BMET-212	Biomedical Instrumentation II	5	4
ELEC-220	Electro-Mechanical Devices	5 3 3	4
HEAL-212	Health Care Issues in BMET	3	4

<sup>\*</sup>Required for students who do not have previous experience in a health care setting.

# BIOMEDICAL ENGINEERING TECHNOLOGY CERTIFICATE OF PROFICIENCY

		Credits	Suggested Semester
ELEC-107	Introduction to Electronic Circuits	4	1
HEAL-111	The Health Care Delivery System	3	1
MATH-124	Technical Math	4	1
PHYS-100	Technical Physics	4	1
BMET-112	Electro-Mechánical-Fluidic Devices I	3	2
BIOL-106	Basic Anatomy and Physiology:		
	Biomedical Emphasis	4	2
ELEC-114	Semiconductor Devices	3	2

# BIOMEDICAL ENGINEERING TECHNOLOGY ADVANCED CERTIFICATE

		Credits	Suggested Semester
HEAL-111	The Health Care Delivery System	3	1
PHYS-100	Technical Physics	4	1
BMET-112	Electro-Mechánical-Fluidic Devices I	3	2
BIOL-106	Basic Anatomy and Physiology:		
	Biomedical Emphasis	4	2
BMET-211	Biomedical Instrumentation I	5	3
BMET-212	Biomedical Instrumentation II	5	4
HEAL-212	Health Care Issues in BMET	3	4

NOTE THAT YOU DO NOT NEED TO COMPLETE THE ONE-YEAR CERTIFICATE IN ORDER TO OBTAIN THE ADVANCED CERTIFICATE.

# BUSINESS MANAGEMENT ASSOCIATE IN APPLIED SCIENCE DEGREE

Students enrolling in the business management program will have the opportunity to gain a variety of business and management skills designed to prepare them for immediate employment as management trainees. Students currently employed as well as students with no prior experience will be able to select from a number of options developed to meet individual career goals. The major emphasis of the business management program is the development and improvement of business and management skills and the opportunity to select a specific career emphasis.

GENERAL EDUCATION	CORE	Credits	Suggested Semester
ENGL-101	Introduction to Composition I	3	1
Arts & Humanities	Arts & Humanities Core Course (see p. 56) (one course from either Literature, Fine Arts, or humanities)	3	1
	SPCH-105 Fundamentals of Public Speaking OR	J	·
Social Science	SPCH-110 Interpersonal Communications Select HIST-111, HIST-112, HIST-121	3	3
Social Science	HIST-122, HIST-123	3	2
Science	Science Core Course (see p. 57; must		
	include one course with lab)	4	2
Mathematics	MATH-122 or higher	3-4	1
Interdisciplinary	Interdisciplinary and Emerging	1.0	1
	Issues Core Course (see p. 57)	1-3	3
REQUIRED COURSES RE	FLATED TO MAJOR		
ACCT-111	Principles of Accounting I	3	1
BMGT-100	Introduction to Business and Organization	3	1
CMSY-110	Software Applications for Micros	3	1
ACCT-112	Principles of Accounting II	3	2
BMGT-130	Principles of Marketing		2 3 3
ECON-101	Principles of Economics (Macro)	3	3

SELECT ONE OF THE FOLLOWING OPTIONS: Business Management, Financial Planning, Retail Management

Select one of these options along with the General Education Core and Courses Related to Major to complete the associate degree in Business Management, Financial Planning or Retail Management.

## **Business Management**

	_	Credits	Suggested Semester
MAMT-140	Principles of Management	3	2
MAMT-240 MAMT-131	Personnel Management Supervisory Development	3	3 4
BMGT-201	Business Work Experience I	J	4
	OR Business Elective (see p. 58)	3-4	3
BMGT-202	Business Work Experience II	0 1	Ü
	OR Business Elective (see p. 68)	3-4	4
MAMT-200	Managing For The Future	3	4
Business Elective	Business Elective (see p. 58) Arts and Sciences Elective (see p. 58)	3 3 3	4 4
	Financial Planning		
FNPL-101	Personal Financial Planning	3	2
FNPL-201 FNPL-202	Investment Analysis and Portfolio Selection	3 3	3 4
MAMT-140	Risk Management and Insurance Principles of Management	3	4
BMGT-201	Business Field Experience I OR		
	Business Elective (see p. 58)	3-4	3
BMGT-202	Business Field Experience IÍ OR		
	Business Elective (see p. 58)	3-4	4
ECON-201 Elective	Money and Banking MATH-200	3 3	4 4
LICCIIVC	WATTP200	J	7
	Retail Management		
MAMT-131	Supervisory Development I	3	4
MAMT-240	Personnel Management	3 3	4
MAMT-200 MAMT-101	Managing For The Future Sales and Sales Management	3	4 3
MAMT-102	Small Business Management	3	4
RETL-201	Retail Field Experience or Business Elective (See p. 58)	3-4	3
RETL-202	Retail Field Experience or Business Elective (See p. 58)	3-4	4
RETL-103	Retail Merchandising	J <del>-4</del>	4
RETL-105	OR Fashion Merchandising	3	2
	•		

# BUSINESS MANAGEMENT - FINANCIAL PLANNING CERTIFICATE OF PROFICIENCY

		Credits	Suggested Semester
ENGL-101	Introduction to Composition I	3	1
FNPL-101	Personal Financial Planning Principles	3	1
MATH-108	Business Mathematics	3	1
ACCT-111	Principles of Accounting I	3	2
CMSY-110	Software Applications for Micros	3	2
FCON-101	Principles of Economics (Macro)	3	2

# BUSINESS MANAGEMENT - FINANCIAL PLANNING ADVANCED CERTIFICATE OF PROFICIENCY

ACCT-112	Principles of Accounting II	3	1
BMGT-201	Business Work Experience I	4	1
FNPL-201	Investment Analysis and Portfolio Selection	3	1
ECON-201	Money and Banking	3	2
FNPL-202	Risk Management and Insurance	3	2
MATH-138	Statistics	4	2

# BUSINESS MANAGEMENT - RETAILING CERTIFICATE OF PROFICIENCY

MAMT-101 MAMT-102	Sales and Sales Management Small Business Management	3	1 1
RETL-201	Retail Work Experience I OR		
	Business Elective (see p. 58)	3-4	1
Business Elective	Business Elective (see p. 58)	3	1
English Elective	ENGL, MASS or SPCH (see p. 58)	3	1
MATH-108	Business Mathematics	3	2
MAMT-131	Supervisory Development	3	2
RETL-103	Retail Merchandising OR		
RETL-105	Fashion Merchandising	3	2
RETL-202	Retail Work Experience II OR		
	Business Elective (see p. 58)	3-4	2
Social Sciences Elective	Social Sciences Elective (see p. 58)	3	2

## CARDIOVASCULAR TECHNOLOGY

### ASSOCIATE IN APPLIED SCIENCE DEGREE

### **Invasive Option**

This program prepares students to enter the allied health career field of cardiovascular technology to gather data and perform various cardiac and/or vascular diagnostic tests and procedures under the direction of a physician. The invasive technologist may be found in cardiac catheterization, blood gas, and electrophysiology laboratories. Working in the cardiac catheterization laboratory, operating area, and/or electrophysiology laboratory, the technologist utilizes x-ray and monitoring equipment in performing invasive diagnostic tests to determine the condition of the patient's heart. New therapeutic steps may be taken to treat an existing condition during the catheterization procedure. Graduates may apply to take the national certification examination to become a Registered Cardiovascular Invasive Specialist (RCIS).

Cummontod

GENERAL EDUCATION	CORF	Credits	Suggested Semester
BIOL-101	General Biology OR	0.00	••••••
BIOL-107	Fundamentals of Microbiology	4	Summer
ENGL-101	Introduction to Composition I		1
SPCH-110	Interpersonal Communication	3 3 3	2
SOCI-101	Introduction to Sociology	3	2 2
PHYS-100	Technical Physics OR		
PHYS-103	Fundamentals of Physics I		
	AND		
PHYS-104	Fundamentals of Physics II	4-8	1
CHEM-101	General Inorganic Chemistry I OR		
CHEM-103	Fundamentals of General Chemistry	4	1
Mathematics	MATH-124,133,135, or 140	3-5	1
REQUIRED COURSES RE	LATED TO MAJOR		
BIOL-203	Anatomy and Physiology I	4	1
BIOL-204	Anatomy and Physiology II	4	2
HEAL-110	The Health Care Professional	2	1
HEAL-112*	Health Care Professional Lab	1	1
CARD-101	Cardiovascular Assessments	3 3 3	2
CARD-103	Physical Principles of Medicine	3	2
CARD-108	Advanced Anatomy and Pathophysiology	3	Summer
CARD-115	X-Ray Theory	1	Summer
CARD-201	Cardiovascular Pharmacology	2	3
CARD-203	Medical Instrumentation	2	3
CARD-207	Diagnostic and Interventional Procedures	9	3
CARD-231	Applied Clinical Practicum	3	Intersession**
CARD-251	Advanced Interventional Procedures	5	4
CARD-261	Clinical Internship	4	4

A grade of "C" or better is required in cardiovascular, mathematics, and science courses. Admission to the Cardiovascular Technology Program is based upon successful completion of specific courses in the degree program. Contact the Admissions Office to schedule an appointment for an information session regarding the Cardiovascular Technology Program.

<sup>\*</sup>Advanced standing awarded for students who have approved prior experience in a health care setting.

<sup>\*\*</sup>Students will be assigned to a clinical agency for the month of January, between the third and fourth semesters. Clinical experience is 40 hours per week.

# **CARDIOVASCULAR TECHNOLOGY**

### CERTIFICATE OF PROFICIENCY

## **Cardiac Monitoring and Analysis**

This certificate program is an option within the Cardiovascular Technology Degree program. Students learn to apply and interpret rhythm strips, 12-Lead EKG's and Holter monitors. Classes and labs are held on campus and at clinical sites. Students may apply to continue in the Cardiovascular Technology degree program after completion of required additional coursework. Graduates may apply to take the national certification examination to become a Certified Cardiographic Technician (CCT).

		Credits	Suggested Semester
ENGL-101	Introduction to Composition I	3	1
HEAL-110	The Health Care Professional	2	1
HEAL-112*	Health Care Professional Lab	1	1
PHYS-100	Technical Physics OR		
BIOL-101	General Biology	4	1
BIOL-106	Basic Anatomy and Physiology: Biomedical Emphasis or	4	2
BIOL-203	Anatomy and Physiology I AND	4	1
BIOL-204	Anatomy and Physiology II	4	2
CARD-101	Cardiovascular Assessments	3	2
CARD-108	Advanced Anatomy and Pathophysiology	3	1st summer

<sup>\*</sup>Required for students who do not have previous experience in a health care setting.

## CARDIOVASCULAR TECHNOLOGY

CERTIFICATE OF PROFICIENCY

## **Advanced Cardiovascular Imaging and Interventional Therapies**

This certificate program is an option within the Cardiovascular Technology Degree program. This program prepares certified radiographers to meet the technical and clinical responsibilities associated with the cardiovascular field. The clinical environment combines innovative procedures and state-of-the-art equipment for a vast range of experience. Opportunity exists to work with other health professionals in providing cardiovascular diagnostic and interventional therapies. Graduates may apply to take the examination in Cardiovascular-Interventional Technology (CIT) from the ARRT to become a Cardiovascular Radiologic Technologist (CVRT) and the Registered Cardiovascular Invasive Specialist Examination from CCI to become an RCIS.

		Credits	Suggested Semester
CARD-101	Cardiovascular Assessments	3	2
CARD-103	Physical Principles of Medicine	3	2
CARD-108	Advanced Anatomy and Pathophysiology	3	Summer
CARD-201	Cardiovascular Pharmacology	2	3
CARD-203	Medical Instrumentation	2	3
CARD-207	Diagnostic and Interventional Procedures	9	3
CARD-231	Applied Clinical Practicum	3	Intersession*
CARD-251	Advanced Interventional Procedures	5	4
CARD-261	Clinical Internship	4	4

<sup>\*</sup>Students will be assigned to a clinical agency for the month of January, between the third and fourth semesters. Clinical experience is 40 hours per week.

## **CARDIOVASCULAR TECHNOLOGY**

### CERTIFICATE OF PROFICIENCY

## Cardiovascular Technology for Allied Health Professionals

This certificate program is an option within the Cardiovascular Technology Degree Program. This program prepares allied health professionals to meet the technical and clinical responsibilities associated with the cardiovascular field. The clinical environment combines innovative procedures and state-of-the-art equipment for a vast range of experience. Opportunity exists to work with other health professionals in providing cardiovascular diagnostic and interventional therapies. Graduates may apply to take the national certification exam to become a Registered Cardiovascular Invasive Specialist (RCIS).

			Suggested
		Credits	Semester
CARD-101	Cardiovascular Assessments	3	2
CARD-103	Physical Principles of Medicine	3	2
CARD-108	Advanced Anatomy and Pathophysiology	3	Summer
CARD-115	X-Ray Theory	1	Summer
CARD-201	Cardiovascular Pharmacology	2	3
CARD-203	Medical Instrumentation	2	3
CARD-207	Diagnostic and Interventional Procedures	9	3
CARD-231	Applied Clinical Practicum	3	Intersession*
CARD-251	Advanced Interventional Procedures	5	4
CARD-261	Clinical Internship	4	4

<sup>\*</sup>Students will be assigned to a clinical agency for the month of January, between the third and fourth semesters. Clinical experience is 40 hours per week.

# Students must have the following in their background or complete prior to enrollment in the cardiovascular course sequence:

BIOL-101 General Biology I

OF

BIOL-107 Fundamentals of Microbiology BIOL-203 & 204 Anatomy and Physiology I and II

PHYS-100 Technical Physics

OR

PHYS-103 & 104 Fundamentals of Physics I and II CHEM-101 General Inorganic Chemistry I

OR

CHEM-103 Fundamentals of General Chemistry

Mathematics MATH-124, 133, 135 or 140

## CARDIOVASCULAR TECHNOLOGY

CERTIFICATE OF PROFICIENCY

## **Accelerated Cardiovascular Program for Hospital Trainees**

This program prepares students to meet the theoretical, technical and clinical responsibilities associated with the cardiovascular field. To be eligible for this program a student must be assigned by an employer to a cardiac catheterization laboratory setting. The clinical environment combines innovative procedures and the state-of-the-art equipment and provides opportunity to work with other health professionals in providing cardiovascular diagnostic and interventional therapies. Graduates may apply to take the national certification examination to become a Registered Cardiovascular Invasive Specialist (RCIS).

			Suggested
		Credits	Semester
HEAL-110	The Health Care Professional	2	Pre-req
PHYS-101*	Technical Physical Science	4	Intersession
BIOL-106	Basic Anatomy and Physiology: BMET Emphasis	4	1
CARD-101	Cardiovascular Assessments "	3	1
CARD-103	Physical Principles of Medicine	3	1
CARD-108	Advanced Anatomy and Pathophysiology	3	Summer
CARD-115	X-ray Theory	1	Summer
CARD-201	Cardiovascular Pharmacology	2	2
CARD-203	Medical Instrumentation	2	2
CARD-207	Diagnostic and Interventional Procedures	9	2
CARD-251	Advanced Interventional Procedures	5	3

<sup>\*</sup>Must complete ENGL-093 and MATH-061, if required, prior to enrolling in PHYS-101.

## CHEMICAL DEPENDENCY COUNSELING

ASSOCIATE IN APPLIED SCIENCE DEGREE

# A Combined Program with Dundalk Community College DUNDALK COMMUNITY COLLEGE DEGREE

In conjunction with an articulation agreement with Dundalk Community College, students may complete all general education requirements and several core courses in chemical dependency counseling at Howard Community College. The program is designed to prepare students to counsel persons and families involved with substance abuse problems. Counselors work in hospitals, treatment centers, and other community settings. Graduates have the opportunity for certification through the Maryland Addiction Counselor Certification Board. Coursework is articulated with the Office of Education and Training for Addiction Services, Maryland Department of Health and Mental Hygiene. The degree is awarded from Dundalk Community College.

GENERAL EDUCATION ENGL-101 ENGL-102 Arts & Humanities PSYC-101 Science Mathematics	Introduction to Composition I Introduction to Composition II Arts & Humanities Core Course SPCH-110 Interpersonal Communication General Psychology BIOL-101, CHEM-101 or CHEM-103 MATH-122 or higher	Credits 3 3 3 3 4 3-5	Suggested Semester  1 2 3 2 2 1 1
REQUIRED COURSES R HEED-120 HEED-121 HEED-122 HEED-123 HEED-124 HEED-211 HMDV-200 PSYC-203	RELATED TO MAJOR  Medical Aspects of Chemical Dependency Introduction to Chemical Dep. Treatment Basic Chemical Dependency Counseling Skills Group Counseling Skills (Chemical Dependency) Family Counseling (Chemical Dependency) Nutrition Life Span Development Abnormal Psychology	3 3 3 3 3 3 3	1 2 1 2 2 2 3 3 4
COURSES OFFERED AT CDC 121 CDC 173	DUNDALK COMMUNITY COLLEGE  Delivery of Services I Internship: Chemical Dependency Counseling OR	3	3
CDC 183 CDC 211 CDC 212 CDC 221 CDC 273	Cooperative Education I Advanced Counseling Group Counseling: Advanced Delivery Services II Internship: Chemical Dependency Counseling OR	3 3 3 3	3 4 4 4
CDC 283	Cooperative Education II	3	4

# COMPUTER-AIDED DESIGN (CAD) TECHNOLOGY ASSOCIATE IN APPLIED SCIENCE DEGREE

The growing applications of CAD in such fields as electro-mechanical engineering, civil engineering, architecture, multimedia, and presentation graphics have increased the demand for skilled technicians to assist in all phases of conception and design. Graduates of this program will be able to gain employment as a skilled application specialist in CAD. Individuals experienced in manual drafting may also enroll in this program to enhance their skills and knowledge. The students will learn to use the CAD system to develop complex drawings and technical documents. Among the skills acquired in this program, the students will learn to program the CAD system and develop their own application packages. The student will become proficient in recognizing various computer graphic file formats and translation standards. Also, the student will become familiar with various CAD systems in the industry. The college and the Howard County public school system have developed a tech prep track in Computer-Aided Design Technology. For more information, call the chairperson of Science and Technology.

A certificate of proficiency is available for students seeking entry in the field or desiring enhancement of a present position.

GENERAL EDUCATION ENGL-101	CORE Introduction to Composition I	Credits 3	Suggested Semester
Arts & Humanities	Arts & Humanities Core Course (see p. 56) (one course from either Literature, Fine Arts, or Humanities) SPCH-105 Fundamentals of Public Speaking OR	3	4
Social Sciences	SPCH-110 Interpersonal Communications Select GEOG-102, HIST-111, HIST-112, HIST-121, HIST-122, HIST-123, POLI-201, SOCI-101, or	3	3
	SOCI-105	3	2
PHYS-100	Technical Physics	4	1
MATH-124	Technical Math	4	1
REQUIRED COURSES R	ELATED TO MAJOR		
CADD-100	Principles of Drafting	3	1
CADD-101	Introduction to CAD	3	1
CMSY-120	Introduction to Computer Systems	3	1
BMGT-100	Introduction to Business and Organization	3 3 3 3 3	2 2 2 3 3
CADD-103	Intermediate CAD	3	2
CMSY-110	Software Applications for Micros	3	2
CADD-104	Advanced CAD	3	3
CMSY-219	Microcomputer Operating Systems	3	3
CADD	Computer-Aided Design Electives OR		
Computer Systems	Computer Systems Electives	12	3-4
CADD-105	CAD Projects	3	4
CADD-106	CAD Systems	3	4
	•		

# COMPUTER-AIDED DESIGN (CAD) TECHNOLOGY CERTIFICATE OF PROFICIENCY

		Credits	Suggested Semester
CADD-100	Principles of Drafting	3	1
CADD-101	Introduction to CAD	3	1
MATH-124	Technical Math	4	1
CADD-103	Intermediate CAD	3	2
CMSY-110	Software Applications for Micros	3	2
CADD-104	Advanced CAD	3	3
CADD-105	CAD Projects	3	4
CMSY-219	Microcomputer Operating Systems-DOS	3	4

# COMPUTER SUPPORT TECHNOLOGY ASSOCIATE IN APPLIED SCIENCE DEGREE

This program is designed to meet the needs of business and industry by qualifying students for a variety of technical positions in computer support including (but not limited to) HelpDesk Specialist, PC Software Support Technician, Installation and Repair Technician, and Microsoft Certified Product Specialist. HCC's membership in the Microsoft Academic Training Program assures students of having Microsoft Certified Trainers (MCT) for all MSFT courses. HCC is a CompTIA authorized Training Center for A+ Certification and an authorized CISCO Networking Academy. This curriculum prepares students to sit for the Microsoft Certified Professional (MCP) exam(s), A+ certification exams, and CISCO Certified Networking Associate (CCNA) certification exam.

GENERAL EDUCATION ENGL-101	Credits	Suggested Semester	
Arts & Humanities	Introduction to Composition I Arts & Humanities Core Course (see p. 56) (one course from either Literature, Fine Arts,	Ü	
Social Sciences	or Humanities) SPCH-105 Fundamentals of Public Speaking Select GEOG-102, HIST-111, HIST-112, HIST-121,	3	3 2
Colonas	HIST-122, HIST-123, POLI-201, SOCI-101, or SOCI-105	3	4
Science	Science Core Course (PHYS-105/PHYS-115 recommended) (see p. 57—must include lab)	4	3
Mathematics	MATH-122 or higher	3-4	3 1
CMSY-129	Principles of Internet	3	4
REQUIRED COURSES R	ELATED TO MAJOR		
ACCT-111	Principles of Accounting I OR		
BMGT-100	Introduction to Business and Organization	3	1
CMSY-219	Microcomputer Operating Systems-DOS	3 3	1
ELEC-105	Fundamentals of Electronics	3	1
CMSY-105	Personal Computer Systems Repair I	3	2 2 3
CMSY-177	Microsoft Office User Proficient	3	2
CMSY-106	Personal Computer Systems Repair II	3	3
ELEC-260	Internetworking with Multi-Protocol Systems	3	4
Networking Core			
MSFT-200	Microsoft Windows 2000 Professional	3	2
MSFT-205	Microsoft Windows 2000 Server	3	3

Additional Courses in Major 12 varie Students will choose 12 credits (four courses) from the courses listed below according to their specific career plans. The courses are grouped into three interest areas, but students are free to select 12 credits from any area. Since this is a rapidly changing field, students should consult a faculty advisor each semester for program updates.

### **Microsoft Networking Support**

CMSY-110	Software Applications for Micros (see NOTE 1 below)
CMSY-201	Computer Systems Work Experience
MSFT-299	Fundamentals and Practice for Network and Certification
MSFT-210	Administering Microsoft Windows 2000 Network Infrastructure
MSFT-215	Administering Microsoft Windows 2000 Active Directory Services
MSFT-230	Designing a Microsft Windows 2000 Active Directory Services Infrastructure
MSFT-235	Desiging Security for a Microsft Windows 2000 Network
MSFT-240	Designing a Microsft Windows 2000 Network Infrastructure
MSFT-688	TCP/IP ŇT 4.0
MSFT-689	Supporting Microsoft Windows NT Enterprise
MSFT-832	System Administrator for MS-SQL Server
MSFT-955	Implementing and Supporting Microsoft Windows 98
MSFT-973	Implementing Microsoft Exchange

#### Help Desk Support and Application Development

CMSY-110	Software Applications for Micros (see NOTE 1 below)
CMSY-113	Intermediate Database
CMSY-181	Introduction to C++ Programming
CMSY-190	Introduction to Visual Basic
CMSY-199	Introduction to Java
CMSY-201	Computer Systems Work Experience
CMSY-277	Microsoft Office User Expert
MSFT-299	Fundamentals and Practice for Network and Certification

### **Internetworking Support**

CMSY-110	5	Software Applications for Micros (see NOTE 1 below)
CMSY-201		Computer Systems Work Experience
ELEC-261		Introduction to Router Configuration
ELEC-262		Advanced Router Configuration
MSFT-299		Fundamentals and Practice for Network and Certification
MSFT-688		TCP/IP NT 4 0

**NOTE:** Students who have little experience with microcomputers may need CMSY-110, Software Applications for Micros. These CMSY-110 skills are the real world prerequisite for the program. Therefore, if CMSY-110 is taken, it must be taken before any other CMSY or MSFT course and will count as one course in the area of emphasis. If completed later, no credit will be granted towards the degree.

## **COMPUTER SUPPORT TECHNOLOGY**

CERTIFICATE OF PROFICIENCY

## PC Maintenance (A+ Certification) with Network Emphasis

This program is designed to meet the needs of individuals who are interested in computer maintenance, troubleshooting and internetworking with different protocols. Labs will include hands-on experiences in computer repair and network configurations. This program also prepares the student for the A+Certification exam given by the Computer Industry Association.

		Credits	Suggested Semester
CMSY-105	Personal Computer Systems Repair I	3	1
CMSY-219	Microcomputer Operating Systems—DOS	3	1
ELEC-105	Fundamentals of Electronics	3	1
CMSY-106	Personal Computer Systems Repair II	3	2
ELEC-140	Network Cabling Systems	3	2
ELEC-260	Internetworking with Multi-Protocol Systems	3	3

# COMPUTER SUPPORT TECHNOLOGY LETTER OF RECOGNITION

This Letter of Recognition makes the student eligible to take the A+ Certification exam. A+ Certification is a CompTIA-sponsored testing program that certifies the competency of individuals in the microcomputer service industry. Earning A+ Certification means that you have met the computer service industry standard for technical competence.

CMSY-105	Personal Computer Systems Repair I	3
CMSY-106	Personal Computer Systems Repair II	3
CMSY-219	Microcomputer Operating Systems-DOS	3

The following Certificate of Proficiency is available in Microsoft. (See page 132)

#### MICDOSOFT

Certificate of Proficiency - Microsoft Certified Systems Engineer (MCSE)

# EARLY CHILDHOOD DEVELOPMENT ASSOCIATE IN APPLIED SCIENCE DEGREE

In our society where both parents are working full-time outside the home, the need for qualified child care providers is growing rapidly. This curriculum is designed to provide the student with a well-rounded background in early childhood development. As part of their career education, most courses assign students to off-campus child care settings where they will interact with young children under the supervision of professionals in the field. Graduates of this program, under current State of Maryland regulations, will have the skills necessary to become a Director of a Child Care Center licensed for more than forty children provided that they have two years of experience in an early childhood program and are at least 21 years of age.

			Suggested
GENERAL EDUCATION		Credits	Semester
ENGL-101	Introduction to Composition I	3	1
Mathematics	MATH-127 or MATH-128	3-5	2
SPCH-105	Fundamentals of Public Speaking	3	3
Science	Science Core Course (see p. 57; must include		
	a lab)	4	3
Social Sciences	Social and Behavioral Sciences Core Courses		
	(see p. 57)	6	4
HEED-109	Basic CPR and First Aid	2	2
REQUIRED COURSES RE		0	4
EDUC-111	Child Growth and Development	3	I
EDUC-112	Methods and Materials in Early Childhood	0	4
EDUO 440	Education	3 3 3 4 3 3	l
EDUC-113	Working with Infants and Toddlers	3	l
EDUC-130	Introduction to Early Childhood Education	3	I
EDUC-140	Child Health, Safety, Nutrition	3	2 2 2 3 3
EDUC-150	Practicum in Early Childhood Development	4	2
EDUC-160	School Age Child Care	3	2
EDUC-200	Introduction to Special Education	3	3
EDUC-201	Processes and Requisition of Reading	3	3
EDUC-212	Advanced Methods and Materials in Early	0	0
ED110 000	Childhood Education	3 3 3	3
EDUC-230	Child Care Center Administration and Management	3	4
EDUC-240	Successful Classroom Management	3	4
EDUC-250	Advanced Practicum in Early Childhood	4	4
	Development	4	4

# EARLY CHILDHOOD DEVELOPMENT CERTIFICATE OF PROFICIENCY

This sequence of courses is designed to provide concentrated study and hands-on experience in early childhood development, curriculum, and classroom management. Successful completion of this program will indicate that the student has met the educational requirements, under current State of Maryland regulations, for employment as a Director of a Child Care Center licensed for up to twenty children, provided the individual has at least one year of experience in a licensed early childhood program and is at least 21 years of age; a Senior Staff member in a Child Care Center, provided the individual is at least 20 years of age; or as an Aide in a Child Care Center.

GENERAL EDUCATION REQUIREMEN	NTS	Credits	Suggested Semester
	o Composition I	3	1
EDUC-111 Child Growth	and Development	3	1
EDUC-112 Methods and	Materials in Early Childhood Education	3	1
	Infants and Toddlers	3	1
EDUC-130 Introduction t	o Early Childhood Education	3	1
EDUC-140 Child Health,	Safety, Nutrition	3	2
EDUC-150 Practicum in	Early Childhood Development	4	2
EDUC-160 School Age C	hild Care	3	2
EDUC-240 Successful Cla	assroom Management	3	2
HEED-109 Basic CPR an		2	2

# EARLY CHILDHOOD DEVELOPMENT LETTER OF RECOGNITION\*

Successful completion of these two courses will indicate that the student has met the educational requirements, under current State of Maryland regulations, for employment as a Senior Staff member in a Child Care Center provided that the individual has one year of experience in an early childhood program or one year of college, and is at least 20 years of age; or as an Aide in a Child Care Center.

		Credits	Semester
EDUC-111	Child Growth and Development	3	1
EDUC-112	Methods and Materials in Early Childhood Education	n 3	1

Suggested

<sup>\*</sup>See Social Sciences Division office for Letter of Recognition.

# ELECTRONICS TECHNOLOGY ASSOCIATE IN APPLIED SCIENCE DEGREE

Electronics is the wave of the future. All aspects of modern society and business are becoming more dependent on skilled professionals to maintain the electronics infrastructure. Graduates can choose to work in challenging positions in the fields of computers, telecommunications, training and higher studies. Courses will emphasize theory and practice. Course work will reflect the changing needs of industry and inculcate a need for ongoing training. Students planning to transfer to a four-year technical institution should contact that institution to check transferable courses. This curriculum prepares students to sit for the A+ certification exam. A certificate of proficiency is available for students seeking entry in related fields or desiring enhancement of a present position.

GENERAL EDUCATION ENGL-101 Arts & Humanities	CORE Introduction to Composition I Arts & Humanities Core Course (see p. 56)	Credits	Suggested Semester
	(one course from either Literature, Fine Arts, or Humanities) SPCH-105 Fundamentals of Public Speaking OR	3	4
Social Sciences	SPCH-110 Interpersonal Communications Select GEOG-102, HIST-111, HIST-112, HIST-121, HIST-122, HIST-123, POLI-201, SOCI-101, or	3	3
	SOCI-105	3	1
PHYS-100	Technical Physics	4	1
MATH-124	Technical Math	4	1
REQUIRED COURSES R			
ELEC-107 CADD-101	Introduction to Electronic Circuits Introduction to CAD	4	1
COOP-201	OR	2	2
CMSY-105	Cooperative Education I Personal Computer Systems Repair I	3	2
CMSY-219	Microcomputer Operating Systems-DOS	3	2
ELEC-114	Semiconductor Devices	3 3 3	2
CMSY-106	Personal Computer Systems Repair II	3	2 2 2 3 3 3 3 4
ELEC-211	Analog Circuits '	4	3
ELEC-213	Digital Circuits	4	3
ELEC-237	Wireless Communication Circuits	3 3 3	3
ELEC-140	Network Cabling Systems	3	4
ELEC-220 ELEC-238	Electro-Mechanical Devices Wireless Communication Systems	ა ე	4 4
ELEC-230 ELEC-260	Internetworking with Multi-Protocol Systems	3	4
LLLO 200	internetworking with watti Frotocol Systems	3	r

# ELECTRONICS TECHNOLOGY CERTIFICATE OF PROFICIENCY

		Credits	Suggested Semester
ELEC-107	Introduction to Electronic Circuits	4	1
MATH-124	Technical Math	4	1
ELEC-114	Semiconductor Devices	3	2
ELEC-211	Analog Circuits	4	3
ELEC-213	Digital Circuits	4	3
ELEC-237	Wireless Communication Circuits	3	3
ELEC-238	Wireless Communication Systems	3	4

# ELECTRONICS TECHNOLOGY - Telecommunications Technology ASSOCIATE IN APPLIED SCIENCE DEGREE

The future is in communications and predominantly in telecommunications. This program will provide grassroots training to develop qualified technicians, supervisors and trainers in installing, maintaining and troubleshooting modern communication networks incorporating fiber optics, cellular, microwave, and satellite systems. Hands-on skills will be emphasized to enable students to face real-world situations which will prepare them for entering industry. Students planning to transfer to a four-year technical institution should contact that institution to check transferable courses. This curriculum prepares students to sit for the A+ certification, router configuration, and internetwork expert certification exams. A certificate of proficiency is available for students seeking entry in related fields or desiring enhancement of a present position.

GENERAL EDUCATION	CORF	Credits	Suggested Semester
ENGL-101	Introduction to Composition I	3	1
Arts & Humanities	Arts & Humanities Core Course (see p. 56) (one course from either Literature, Fine Arts,	-	·
	or Humanities) SPCH-105 Fundamentals of Public Speaking OR	3	4
Cardal Calamana	SPCH-110 Interpersonal Communications	3	4
Social Sciences	Select GEOG-102, HIST-111, HIST-112, HIST-121, HIST-122, HIST-123, POLI-201, SOCI-101, or		
	SOCI-105	3	2
PHYS-100	Technical Physics	4	1
MATH-124	Technical Math	4	1
REQUIRED COURSES RE			
ELEC-103	Introduction to Wireless and Network Communications	3	1
ELEC-107	Introduction to Electronic Circuits	4	i
CMSY-105	Personal Computer Systems Repair I	3	
ELEC-114	Semiconductor Devices	3	2
ELEC-140	Network Cabling Systems	3	2
CMSY-219	Microcomputer Operating Systems-DOS	3	2
CMSY-106	Personal Computer Systems Repair II	3	3
ELEC-211	Analog Circuits	4	3
ELEC-213	Digital Circuits	4	3
ELEC-237	Wireless Communication Circuits	3	3
ELEC-260	Internetworking with Multi-Protocol Systems	3	3
ELEC-261	Introduction to Router Configuration	4 3 3 3 3 4 4 3 3 3 3 3 3 3 3 3 3 3 3 3	2 2 2 2 3 3 3 3 3 3 4
ELEC-238	Wireless Communication Systems	3	
ELEC-262	Advanced Router Configuration	3	4

# ELECTRONICS TECHNOLOGY - Telecommunications Technology CERTIFICATE OF PROFICIENCY

		Credits	Suggested Semester
ELEC-103	Introduction to Wireless and Network		
	Communications	3	1
ELEC-107	Introduction to Electronic Circuits	3	1
MATH-124	Technical Math	4	1
ELEC-114	Semiconductor Devices	3	2
ELEC-211	Analog Circuits	4	3
ELEC-213	Digital Circuits	4	3
ELEC-237	Wireless Communication Circuits	3	3
ELEC-238	Wireless Communication Systems	3	4

# EMERGENCY MEDICAL SERVICES ASSOCIATE IN APPLIED SCIENCE DEGREE

## **Emergency Medical Technician - Paramedic**

This program prepares graduates to provide immediate care for the critically ill or injured at the site of an emergency. Emergency care is maintained during transport of patients to hospital settings. Instruction includes classroom and clinical experience. Successful completion of the program leads to eligibility to take state and national certification examinations in Emergency Medical Technician - Paramedic. Graduates are employed by fire and rescue organizations, hospitals, private ambulance companies and other health care agencies. Current EMT-B certification\* is a prerequisite for enrollment in EMSP-160, along with proof of experience as an EMT-B as outlined by Code of Maryland (COMAR) regulations.

GENERAL EDUCATION CORE	
General Biology I	
OR 33	
Fundamentals of Microbiology	4
	4
Introduction to Composition I	3
General Psychology '	3
Mathematics Core Course	3-5
Fundamentals of Public Speaking	3
	General Biology I OR Fundamentals of Microbiology Anatomy and Physiology I Introduction to Composition I General Psychology Mathematics Core Course

REQUIRED COURSES R	RELATED TO MAJOR	Credits
BIOL-204	Anatomy and Physiology II	4
MATH-105	Drug Calculations	1
HEAL-110	The Health Care Professional	2
EMSP-160	Prevention and Management of Emergency Situations	6
EMSP-200	Airway, Patient Assessment & Trauma Management	9
EMSP-204	Emergency Treatment for the Medical Patient	9
EMSP-208	Behavioral and Environmental Interventions	5
EMSP-252	Special Considerations for Pre-Hospital Care	5
EMSP-262	Paramedic Internship and Evaluation	5

A grade of "C" or better is required in paramedic, mathematics, and science courses.

<sup>\*</sup>For information on obtaining EMT-B certification, contact the Admissions and Advising Office or the Program Director for Emergency Medical Services.

# EMERGENCY MEDICAL SERVICES CERTIFICATE OF PROFICIENCY

## **Emergency Medical Technician - Paramedic**

This certificate program is an option within the Emergency Medical Services – Paramedic degree program. Current EMT-B certification\* is a prerequisite for enrollment in EMSP-160, along with proof of experience as an EMT-B as outlined by COMAR regulations.

		Credits
BIOL-101	General Biology I	
	OR	
BIOL-107	Fundamentals of Microbiology	4
BIOL-203	Anatomy and Physiology I	4
BIOL-204	Anatomy and Physiology II	4
MATH-105	Drug Calculations	1
HEAL-110	The Health Care Professional	2
EMSP-160	Prevention and Management of Emergency Situations	6
EMSP-200	Airway, Patient Assessment & Trauma Management	9
EMSP-204	Emergency Treatment for the Medical Patient	9
EMSP-208	Behavioral and Environmental Interventions	5
EMSP-252	Special Considerations for Pre-Hospital Care	5
EMSP-262	Paramedic Internship and Evaluation	5

A grade of "C" or better is required in paramedic, mathematics, and science courses.

<sup>\*</sup>For information on obtaining EMT-B certification, contact the Admissions and Advising Office or the Program Director for Emergency Medical Services.

# EMERGENCY MEDICAL SERVICES LETTER OF RECOGNITION

## **Emergency Medical Technician - Basic**

The attainment of EMT-Basic certification is considered an entry-level position in prehospital training. This letter of recognition provides validation that students have gone beyond the basic requirements of their training and have chosen to increase their knowledge of the health care field and medicine.

		Credits
EMSP-100	Emergency Medical Technician – Basic*	5
HEAL-110	The Health Care Professional	2
BIOL-101	General Biology OR	4
BIOL-107	Fundamentals of Microbiology	4

<sup>\*</sup>Students previously certified as EMT-Basic will be granted advanced standing credit for EMSP-100 after successful completion of the Letter of Recognition requirements.

# LABORATORY SCIENCE (Biotechnology)

Please refer to the TRANSFER PROGRAMS section of the catalogue for a description of the Laboratory Science (Biotechnology) curriculum (see page 69). The growing emphasis on modern science technology has created a demand for skilled laboratory specialists in the emerging biotechnology and chemical industries. These areas include genetic engineering, pharmaceuticals, biological and biomedical research, quality control, water quality and treatment, pollution abatement, and others. The college has articulated this program with the Department of Medical and Research Technology at the University of Maryland at Baltimore which leads to a B.S. degree. The laboratory science program is suitable for students planning to seek employment as laboratory technicians in industrial and research laboratories. Graduates of this program should be able to carry out laboratory procedures, properly use laboratory apparatus and perform basic calculations.

# NETWORK ADMINISTRATION - Network Engineer ASSOCIATE IN APPLIED SCIENCE DEGREE

This program is designed to meet the needs of the business community and industry in the expanding field of computer network engineering and administration. Graduates will be qualified for a variety of technical and administrative positions including client needs assessment, network design, network installation and maintenance, internetwork communication and connectivity, specialized network functions, and on-site network administration. Extensive lab instruction will provide exposure to real-world network scenarios. Completion of all courses in this career curriculum will lead to the award of the associate in applied science degree in network administration. HCC's membership in the Microsoft Academic Training Program assures students of having Microsoft Certified Trainers (MCTs) for all MSFT-courses. Depending on the chosen networking option, this curriculum prepares students to sit for the following certification exams: Microsoft Certified Professional (MCP), and/or the Microsoft Certified Systems Engineer (MCSE).

GENERAL EDUCATION	REQUIREMENTS	Credits	Suggested Semester
ENGL-101 Arts & Humanities	Introduction to Composition Fine Arts Core Course (see p. 56) SPCH-105 Fundamentals of Public Speaking OR	3	1 2
SOCI-101/PSYC-101 Science Mathematics	SPCH-110 Interpersonal Communications Introduction to Sociology or Psychology Science Core Course (see p. 57) MATH-122 or higher	3 3 4 3-5	2 4 2 1
Interdisciplinary	Interdisciplinary and Emerging Issues Core Course (see p. 57)	1-3	2
REQUIRED COURSES R CMSY-121 CMSY-219 CMSY-113 CMSY-180 Related Electives	ELATED TO MAJOR Structured Logic and Program Design Microcomputer Operating Systems - DOS Intermediate Database C-Programming ACCT-111, BMGT-100, BMGT-130, BMGT-151, COOF CMSY-110 (if needed, take before NOVL-courses), CMSY-114, CMSY-250, CMSY-280, CMSY-290, MAMT-131, MAMT-140	3 3 4 2-210,	1 1 3 3 3
Elective	Any Course	3	4
Microsoft Networking MSFT-200 MSFT-205 MSFT-210 MSFT-215 Microsoft Networking Electives	Option Microsoft Windows 2000 Professional Microsoft Windows 2000 Server Microsoft Windows 2000 Network Infrastructure Microsoft Windows 2000 Active Directory Services MSFT-156, MSFT-299, MSFT-688, MSFT-973, MSFT-955, MSFT-936, MSFT-832, MSFT-230, MSFT-235, MSFT-240 Other approved MSFT elective courses	3 3 3 3	1 2 3 4

## **NETWORK ADMINISTRATION - Microsoft**

CERTIFICATE OF PROFICIENCY

# Microsoft Certified Systems Engineer (MCSE) Windows 2000 Track

MCSEs are qualified to effectively plan, implement, maintain, and support information systems with the Microsoft Windows 2000 operating system and the Microsoft BackOffice integrated family of server software. MCSEs are required to pass four operating system exams, one designing core elective exam, and two elective exams. The operating system exams require candidates to prove their expertise with desktop, server, and networking components. The core elective exams require proof of expertise in networking design. The elective exams require proof of expertise with Microsoft BackOffice products.

### PREREQUISITE REQUIREMENTS

Demonstrate a thorough knowledge of DOS, Microcomputer Concepts, Windows and mouse manipulation.

#### **OPERATING SYSTEM REQUIREMENTS**

IVISF 1-200	Microsoft Windows 2000 Professional
MSFT-205	Microsoft Windows 2000 Server
MSFT-210	Microsoft Windows 2000 Network Infrastructure
MSFT-215	Microsoft Windows 2000 Active Directory Services

#### **ELECTIVES (Take Two Courses)**

MSFT-156	Updating Support Skills from Microsoft Windows NT 4.0 to Microsoft
	Windows 2000
MSFT-299	Fundamentals and Practice for Network+ Certification
MSFT-688	Internetworking Microsoft TCP/IP on MS Windows NT 4.0
MSFT-832	System Administration for Microsoft SQL Server 7.0
MSFT-936	Microsoft Internet Information Server
MSFT-973	Implementing and Supporting Microsft Exchange 5.5
MSFT-230	Designing a Microsoft Windows 2000 Active Directory Services
MSFT-235	Designing Security for a MSFT Windows 2000 Network
MSFT-240	Designing an MSFT Windows 2000 Network Infrastructure

### NURSING

Please refer to the TRANSFER PROGRAMS section of the catalog for a description of the nursing curriculum. The associate in arts degree program in nursing is listed under the heading of "Nursing" (see pages 73-74). The associate in arts degree program at Howard Community College provides the graduate with the foundation for both a career and for transfer into a baccalaureate degree program. Most students successfully gain employment immediately after graduation. Graduates are prepared to work in a variety of health care settings. The curriculum is designed to allow transfer of a minimum of 66 credits to University of Maryland System institutions with baccalaureate nursing programs. The application process must begin within seven years of graduation from the nursing program, and the bachelor of science degree in nursing must be completed within ten years from graduation. Students are advised to seek assistance in planning for a career in nursing and for planning an ongoing program of study to meet specific requirements of transfer institutions.

# PRACTICAL NURSING CERTIFICATE OF PROFICIENCY

This certificate program is a curriculum option within the Nursing Program available for persons interested in becoming a licensed practical nurse. Students learn through lectures, individualized study, and practice in a nursing skills laboratory. With the guidance and supervision of nursing instructors, students provide patient care in a variety of health care settings. The graduate functions as a member of a health care team and provides care to patients with commonly occurring health problems. The coursework overlaps the registered nurse (associate in arts degree nursing program) curriculum to ensure a theory-based practitioner and to facilitate educational mobility within the nursing career field. The program is approved by the Maryland Board of Nursing, 4140 Patterson Avenue, Baltimore, MD 21215, 410-764-5124, and accredited by the National League for Nursing Accrediting Commission, 61 Broadway, New York, NY 10006, 1-800-669-1656, ext. 242. Graduates are eligible to be considered by the Board of Nursing to take the National Council Licensing Examination for Practical Nurse licensure.

		Credits	Suggested Semester
ENGL-101	Introduction to Composition I	3	2
PSYC-101	General Psychology	3	2
BIOL-107	Fundamentals of Microbiology	4	Pre-req
BIOL-203	Anatomy and Physiology I	4	1 '
BIOL-204	Anatomy and Physiology II	4	2
MATH-105*	Drug Calculations	1	Pre-req
HMDV-200	Life Span Development	3	1 '
NURS-101	Introduction to Patient Needs and Nursing Actions	7	1
NURS-102	Nursing of Patients with Common Responses		
	to Stress	8	2
NURS-104	Advanced Concepts in Practical Nursing	6	Summer

Admission to the Practical Nursing Program is based upon successful completion of required courses in the Nursing Program. Contact the Admissions Office to schedule an appointment for an information session regarding the Practical Nursing Program.

A grade of C or better is required in nursing, mathematics and science courses.

<sup>\*</sup>Students planning to apply for entry into the associate degree nursing program should consider taking MATH-122 or higher in place of MATH-105, if eligible.

# OFFICE TECHNOLOGY ASSOCIATE IN APPLIED SCIENCE DEGREE

There is a constant demand for well-trained office personnel. This curriculum offers a variety of specializations—office management/supervision, office assistant, legal office assistant, and medical office assistant. The office management/supervision option provides the educational background necessary for a person to advance to a supervisory position. The office assistant option provides comprehensive preparation for positions in corporate and government offices. The legal office assistant option includes courses in legal document preparation, legal terminology, communications, and word processing. The medical office assistant option includes courses in medical terminology, medical transcription, medical billing and insurance processing along with the development of general office skills. The International Office Assistant option includes courses that provide an understanding of global economics and geography.

GENERAL EDUCATION	CORE	Credits	Suggested Semester
ENGL-101	Introduction to Composition I	3	1
SOCI-101	Introduction to Sociology	3	4
Science	Science Core Course (see p. 57-must include one		
	course with lab)	4	2
CMSY-126	Introduction to Internet	1	3
SPCH-105	Fundamentals of Public Speaking	3 3 3	3 2 3
SPCH-110	Interpersonal Communications	3	3
MATH-122	Ideas in Mathematics or higher	3	1
REQUIRED COURSES REBMGT-102 OFFI-176 CMSY-102 OFFI-100 ACCT-111	ELATED TO MAJOR  Records Management English for the Office Professional Beginning Word Processing Office Machines Principles of Accounting I OR	3 3 1 1	1 1 2 2
OFFI-101	Bookkeeping	3	3
BMGT-175	Business Communications	3 3	
CMSY-101	Beginning Spreadsheets	1	3 3 3 3
CMSY-104	Advanced Word Processing	1	3
CMSY-132	Introduction to Windows	1	
CMSY-103	Beginning Database	1	4
CMSY-116	PowerPoint	1	4
CMSY-136	Integrated Software Applications	1	4

SELECT ONE OF THE FOLLOWING FIVE OPTIONS LISTED ON THE NEXT PAGE: Office Management/Supervision, Office Assistant, Legal Office Assistant, Medical Office Assistant, International Office Assistant

#### Office Management/Supervision

MAMT-140 BMGT-151 MAMT-131 MAMT-230 Management Elective Elective	Principles of Management Business Law Supervisory Development Personnel Management Management Elective Business Elective Computer Systems Electives	Credits 3 3 3 3 3 2	Suggested Semester 1 2 2 2 2 4 4 3	
	Office Assistant			
OFFI-279 OFFI-102 OFFI-171 OFFI-272 OFFI-275 Elective	Keyboarding Editing Skills for Word Processors Formatting Business Documents Transcription Skills for Word Processors Office Simulation Business or Computer Systems Electives	1 3 2 2 2 3 9	1 2 2 3 4 4	
	Legal Office Assistant			
BMGT-151 OFFI-279 OFFI-102 OFFI-171 OFFI-281 OFFI-285 Elective	Business Law I Keyboarding Editing Skills for Word Processors Formatting Business Documents Legal Document Preparation Legal Transcription and Terminology Legal Office Simulation Business or Computer Systems Electives	3 1 3 2 2 2 3 3 3	1 1 2 2 2 3 4 4 4	
Medical Office Assistant				
OFFI-279 OFFI-102 OFFI-290 OFFI-191 OFFI-293 OFFI-295 OFFI-297 Elective	Keyboarding Editing Skills for Word Processors Medical Terminology Computerized Medical Billing Beginning Medical Transcription Medical Office Simulation Advanced Medical Transcription Business or Computer Systems Electives	1 3 2 1 3 3 2 5	1 2 2 3 4 4 4 4	
International Office Assistant				
BMGT-100 ECON-101 POLI-201 BMGT-903 ECON-205 GEOG-101 GEOG-201 Elective	Introduction to Business and Organization Principles of Economics Comparative Government Cross-Cultural Business Communication International Economics Introduction to World Geography Economic Geography Computer Systems Elective	3 3 1 3 3 1	1 2 2 3 3 4 4 4	

#### Office Assistant - CERTIFICATE OF PROFICIENCY

BMGT-102 CMSY-102 CMSY-132 OFFI-100 OFFI-101 OFFI-176 OFFI-279 BMGT-175 CMSY-104 OFFI-102 OFFI-171 OFFI-272 OFFI-275 Electives	Records Management Beginning Word Processing Introduction to Windows Office Machines Bookkeeping English for the Office Professional Keyboarding Business Communications Advanced Word Processing Editing Skills for Word Processors Formatting Business Documents Transcription Skills for Word Processors Office Simulation Computer Systems Electives	Credits  3 1 1 1 3 3 1 3 1 3 2 2 3 3 3	Suggested Semester  1	
Word Processing Specialist - LETTER OF RECOGNITION				
CMSY-102 OFFI-176 OFFI-279 OFFI-171 OFFI-272 CMSY-104 CMSY-119	Beginning Word Processing English for the Office Professional Keyboarding Formatting Business Documents Transcription Skills for Word Processors Advanced Word Processing Word Processing Projects	1 3 1 2 2 1 1	1 1 1 2 2 2 2 2	
Legal Office Assistant - CERTIFICATE OF PROFICIENCY				
BMGT-102 CMSY-102 OFFI-100 OFFI-101 OFFI-279 OFFI-176 BMGT-175 CMSY-104 OFFI-102 OFFI-171 OFFI-280 OFFI-281 OFFI-285	Records Management Beginning Word Processing Office Machines Bookkeeping Keyboarding English for the Office Professional Business Communications Advanced Word Processing Editing Skills for Word Processors Formatting Business Documents Legal Transcription and Terminology Legal Office Simulation	3 1 1 3 1 3 3 1 3 2 3 2 3	1 1 1 1 1 2 2 2 2 2 2 2 2 2	
Legal Office Assistant - LETTER OF RECOGNITION				
CMSY-102 OFFI-176 CMSY-104 OFFI-281 OFFI-280	Beginning Word Processing English for the Office Professional Advanced Word Processing Legal Document Preparation Legal Transcription and Terminology	1 3 1 2 3	1 1 2 3 4	

#### Medical Office Assistant - CERTIFICATE OF PROFICIENCY

BMGT-102 OFFI-100 OFFI-101 OFFI-176 OFFI-279 OFFI-290 BMGT-175 CMSY-102 OFFI-102 OFFI-191 OFFI-293 OFFI-295	Records Management Office Machines Bookkeeping English for the Office Professional Keyboarding Medical Terminology Business Communications Beginning Word Processing Editing Skills for Word Processors Computerized Medical Billing Beginning Medical Transcription Medical Office Simulation	Suggested Semester  3 1 1 1 3 1 1 1 3 1 1 1 2 1 3 2 1 2 3 2 1 2 3 2 3 2 3 2 3 2 3 2 3 2 3 2		
Medical Receptionist - LETTER OF RECOGNITION				
CMSY-102 OFFI-279 OFFI-290 OFFI-191	Beginning Word Processing Keyboarding Medical Terminology Computerized Medical Billing	1 1 1 1 2 1 1 1		
Medical Transcriptionist - LETTER OF RECOGNITION				
CMSY-102 OFFI-176 OFFI-290 OFFI-293 OFFI-297	Beginning Word Processing English for the Office Professional Medical Terminology Beginning Medical Transcription Advanced Medical Transcription	1 1 3 1 2 1 3 2 2 3		
Office Automation Specialist - LETTER OF RECOGNITION				
CMSY-101 CMSY-102 CMSY-102 CMSY-103 CMSY-104 CMSY-116 CMSY-117 CMSY-132 CMSY-118 CMSY-119 CMSY-136	Beginning Spreadsheets Beginning Word Processing Introduction to Internet Beginning Database Advanced Word Processing PowerPoint Spreadsheet Projects Introduction to Windows Database Projects Word Processing Projects Integrated Software Applications	1 1 1 1 1 1 1 1 1 1 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 3 1 1 3 1 1 3 1 3		

# PLANT SCIENCE CERTIFICATE OF PROFICIENCY

There are many diversified fields that relate to a knowledge of plants and horticulture. Individuals with a plant science background are employed in nurseries, landscaping firms, and other retail outlets for horticultural products and services. Additionally, there are positions for trained individuals in grounds maintenance or landscaping for private or government facilities. Some students pursue this program to upgrade their skills in a present position or to plan for self-employment. The program prepares all students with basic knowledge of general horticultural principles, specifics of annuals, perennials, and woody plants, as well as basic concepts of pest and disease control. Depending on a student's goals, additional courses can be selected which provide a background in business, salesmanship, retail merchandising, or landscaping. Completion of all courses in this program will lead to the award of a certificate of proficiency in plant science.

PLSC-101 PLSC-102 PLSC-103 PLSC-105 PLSC-201	Introduction to Horticulture Annuals and Perennials Pest and Disease Control Woody Plants Plant Science Work Experience (see COOP-201-202 OR Plant Science Specialty Course	Credits 4 3 3 3 )	Suggested Semester 1 2 3 3
SPECIALTY COURSES (a BMGT-100 PLSC-106 PLSC-107 PLSC-108 MAMT-240	any two of the following courses for a total of si Introduction to Business and Organization Landscape Design and Contracting Landscape and Grounds Management Turfgrass Management Personnel Management		_

#### RADIOLOGIC TECHNOLOGY

ASSOCIATE IN APPLIED SCIENCE DEGREE

### A Combined Program with Anne Arundel Community College ANNE ARUNDEL COMMUNITY COLLEGE DEGREE

In conjunction with an articulation agreement with Anne Arundel Community College, students may complete all general education requirements and theory courses in radiologic technology through Howard Community College. Students will practice skills in campus energized laboratory facilities located at Anne Arundel Community College. This program prepares graduates as entry-level radiographers in hospitals, medical and specialty offices, imaging centers, clinics and other health care agencies. Students develop skills in radiographic positioning and procedures, medical imaging techniques, film processing and other radiographic related competency development areas. Clinical experiences are planned for the Howard County region. Graduates are eligible to apply for the American Registry of Radiologic Technologists certification examination. The program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT).

GENERAL EDUCATION BIOL-101	CORE General Biology I	Credits 4	Semester Pre-req	
BIOL-203	Anatomy and Physiology I	4	Pre-req	
ENGL-101	Introduction to Composition I	3	1 '	
ENGL-120	Introduction to Literature	3	3	
PSYC-101	General Psychology	3	3 2 1	
MATH-131	College Algebra	3	1	
REQUIRED COURSES RE	ELATED TO MAJOR			
BIOL-204	Anatomy and Physiology II	4	Pre-req	
HEAL-110	The Health Care Professional	2	1	
ANNE ARUNDEL COMMUNITY COLLEGE COURSES				
RAD 111	Radiographic Procedures 1	3	1	
RAD 112	Clinical Radiography 1	5	1	
RAD 121	Radiographic Procedures 2	3	2 2 2	
RAD 122	Clinical Radiography 2	5	2	
RAD 123	Imaging Equipment Maintenance & Operation	3	_	
RAD 211	Radiographic Procedures 3	2	Summer	
RAD 212	Clinical Radiography 3	5	Summer	
RAD 231	Radiographic Procedures 4	3	3	
RAD 232	Clinical Radiography 4	6	3	
RAD 251	Radiation Biology and Protection	3	4	
RAD 252	Clinical Radiography 5	6	4	

A grade of "C" or better is required in radiology and science courses.

# Course Descriptions

All course descriptions are alphabetized by category, not by course code. Courses with numbers less than 100 are developmental classes which are non-transferable. Courses numbered in the 100s are first-year level college courses. Courses numbered in the 200s are second-year level courses (Networking courses may be numbered higher than 200). Prerequisites are listed for all courses requiring them. No prerequisite is necessary where none is listed. Developmental courses require a minimum grade of "C." The Nursing and Cardiovascular Technology programs have special admission and progression requirements.

Courses designated by two code numbers separated by a hyphen are full-year courses (example: ARTT-211–212). The second semester course normally presupposes the first course as a prerequisite.

Complete course descriptions are on file in the admissions area in the Library Building.

#### **ACCOUNTING**

### ACCT-111 Principles of Accounting I 3 Credits

Upon completion of this course, the student will have a comprehensive understanding of basic accounting theory, practice covering the accounting cycle, and a knowledge of basic accounting for partnerships. With emphasis on accounting concepts and principles, the student will perform the fundamentals of recording, summarizing and analyzing the transactions of a business. The student will be involved in the preparation and interpretation of working papers and financial statements. The fundamentals of accounting for payroll and assets (cash, notes and accounts receivable, inventories, plant and equipment, and intangibles) will be performed by the student. (3 hours weekly)

### ACCT-112 Principles of Accounting II 3 Credits

Upon completion of this course, which is a continuation of ACCT-111, the student will have a knowledge of

basic accounting for corporations, for interpretation and modifications of financial statements, for managerial accounting of costs, and for planning and controlling business operations. Prerequisite: ACCT-111. (3 hours weekly)

### ACCT-201-202 Accounting Work Experience I and II

#### 3 or 4 Credits

See COOP-201–202 Cooperative Education Work Experience I and II

### ACCT-211 Intermediate Accounting I 3 Credits

In this course, the student will be involved in an intensive study and review of the foundations of accounting theory and the preparation of classified financial statements. The concepts of future and present value and the effects of changing prices on financial reporting will be studied. The student will perform the accounting for cash, short-term investments, receivables, liabilities, income taxes, and inventories at a high level of sophistication. The completion of a comprehensive practice set is required. Prerequisite: ACCT-112. (3 hours weekly)

### ACCT-212 Intermediate Accounting II 3 Credits

In this course, which is a continuation of ACCT-211, the student will be involved in an intensive study of accounting for long-term liabilities, long-term investments in equity and debit securities, corporations, revenue recognition, pension costs, leases, accounting changes and error corrections, financial statements including the Statement of Cash Flows and analysis of financial statements. Prerequisite: ACCT-211 (3 hours weekly)

#### ACCT-215 Cost Accounting 3 Credits

Upon completion of this course, the student will be able to apply the cost accounting principles involved in the determination of material. Jabor and overhead costs

in job-order and process cost systems. Standard costs, analysis of variances, analysis of cost information and cost statements for administrative control purposes will be prepared by the student. Prerequisite: ACCT-112. (3 hours weekly)

### ACCT-217 Tax Accounting 3 Credits

Current tax laws governing recognition of items of gross income, deductions, capital gains and losses, credits, estimated taxes, employment taxes and the calculation of taxable income. Prerequisite: ACCT-112. (3 hours weekly)

### ACCT-219 Principles of Auditing 3 Credits

Upon completion of this course, the student will be able to understand the philosophy and environment of auditing. This will include an overview of the public accounting profession with special attention to auditing standards, professional ethics, the legal liability inherent in the attest function, the study and evaluation of internal control, the nature of evidence, the growing use of statistical sampling, the impact of electronic data processing (EDP), and the basic approach to planning an audit. Prerequisite: ACCT-112. (3 hours weekly)

### ACCT-221 Advanced Accounting 3 Credits

Upon completion of this course, the student will be able to perform accounting for partnerships; governmental accounting; accounting for business combinations, consolidations, and branch operations; and accounting for foreign currency transactions. Prerequisite: ACCT-211 and ACCT-212. (3 hours weekly)

#### **ANTHROPOLOGY**

#### ANTH-104 Introduction to Physical Anthropology and Archaeology 3 Credits

The student will be able to describe the evolution of humankind from early hominids through present day Homo Sapiens. The student will be able to identify and assess the role of archaeology in discovering, preserving and analyzing fossils and artifacts. The student also will be able to identify the physical traits, behaviors and tool technology necessary for diverse populations to evolve into modern forms. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111. (3 hours weekly)

### ANTH-105 Introduction to Cultural Anthropology

### 3 Credits (Social and Behavioral Sciences Core)

Through this introduction to cultural anthropology, the student will be able to identify the basic concepts anthropologists use in describing the economic, family, political and religious systems of preliterate cultures. Students will use these concepts in analyzing the specific preliterate culture and will apply the anthropological perspective to their own culture. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111. (3 hours weekly)

#### ANTH-120 Comparative World Cultures 3 Credits (Interdisciplinary and Emerging Issues Core)

This course is a study of several non-western European societies. Its emphasis is on the comparison of the various facets of these societies; their history, customs, economics, religions, and values. Students will have the opportunity to do individual research and thereby gain an understanding and appreciation of a major culture other than their own. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111. (3 hours weekly)

#### **ART**

### ARTT-101 Two-dimensional Basic Design 3 Credits (Humanities Core)

Students completing this course will possess a visual knowledge of art and will recognize the use of the individual two-dimensional design elements that make up a work of art. Students will gain a visual ability and an awareness and sensitivity to the observation of the visual world and to works of art. (4 hours weekly)

### ARTT-102 Three-dimensional Basic Design 3 Credits

This course explores the unique problems of designing objects that occupy or delineate three-dimensional space. Students experience various media and approaches and

learn to resolve construction problems as well as conceptual problems. Materials may include clay, cardboard, foamcore, wood, paper mache, wire, plaster, and found objects. ARTT-101 is not a prerequisite to ARTT-102; however, students with a background in Two-Dimensional Basic Design (ARTT-101) will find the communication of visual ideas easier. (4 hours weekly)

### ARTT-104 Art History I 3 Credits (Fine Arts/Humanities Core)

This course is an overview of Western Art that will familiarize the student with prehistoric, Mesopatamian, Egyptian, Minoan/Mycenaean, Greco-Roman, and medieval traditions. The student will come to recognize the major styles, monuments, and artists for each period and develop a theory of the relationship of artistic style to the rest of the cultural formulation. Art historical contexts include considerations of gender and other categories of diversity. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111. (3 hours weekly)

### ARTT-105 Art History II 3 Credits (Fine Arts/Humanities Core)

Art from the Renaissance through the Baroque, Neoclassical, Romantic, Modern and Post-Modern periods will be studied in this course. The student will come to recognize the major styles, artists and monuments of each period. Culminating in a study of our own time, the course will emphasize the relationship of artistic style to a cultural period. Art historical contexts include considerations of gender and other categories of diversity. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111. (3 hours weekly)

### ARTT-106 History of Western Architecture I 3 Credits

An examination of the development of Western architectural styles from the ancient world through the late Middle Ages. Parallel developments in the Eastern world will also be considered. Architectural design and city planning are studied as responses to religious, political, economic, and cultural needs, as well as for an understanding of their structural principles. (3 hours weekly)

### ARTT-107 History of Western Architecture II 3 Credits

An examination of the development of Western architectural styles from the Renaissance through the 20th

century and an introduction to contemporary problems in architecture and urbanism. Parallel developments in the Eastern world will also be considered. Architectural design, landscape architecture, and city planning are studied as responses to religious, political, economic, and cultural needs. (3 hours weekly)

# ARTT-108 Environmental Design: Introduction to the Built Environment

#### 3 Credits

Students will be introduced to the conceptual, perceptual, behavioral, and technical aspects of environmental design including methods of analysis, problem solving, and project implementation. (4 hours weekly)

#### ARTT-109 Drawing I 3 Credits (Humanities Core)

This course includes a basic introduction to the theories, practices, and techniques of drawing as a descriptive tool and as a mode of personal expression. The student develops skills in different media and approaches, as well as an understanding of linear perspective. The emphasis is upon direct observation from life, and the subjects may include still life, interiors, portraits, and figures. (4 hours weekly)

### ARTT-110 Drawing II 3 Credits

This course is a continuation of ARTT-109. The student learns to interpret more complex subjects, explores contemporary directions in drawing, and continues to develop a mastery of technique. There is also more emphasis on originality and the development of a personal style. There is a strong emphasis on drawing from life. Prerequisite: ARTT-109. (4 hours weekly)

#### ARTT-112 Drawing and Painting in Digital Media 3 Credits

This course focuses upon the use of the computer as a creative tool for the visual arts. Working with various painting and drawing programs, such as CorelDraw, Adobe Illustrator, and Adobe Photoshop, students will learn how to create images by drawing and painting directly with the computer and by capturing, altering, and processing images using the many transformation

tools available in the different software. In addition to

exploring the possibilities and limitations of digital media, students will explore the philosophical and ethical issues that electronic image-making presents. Prerequisite: ARTT-109. (4 hours weekly)

### ARTT-141 Basic Photography 3 Credits

This course will focus on developing the skills necessary to identify and produce the elements of a good photograph and on acquiring a thorough knowledge of appropriate photographic equipment. The student will develop an understanding of the technical areas of photography including lenses, film types, exposure meters, depth of field, film development and print processing. A camera that allows the user to override the automatic settings or manually adjust aperture and shutter speed is required. (2 hours lecture, 3 hours lab)

### ARTT-142 Intermediate Photography 3 Credits

This student will use the camera as a means of creative self-expression and communication. The student will master the basic elements of design, composition and lighting that go into making a photograph that communicates a message. Students will be assigned projects that will be critiqued during the semester. Prerequisite: ARTT-141. (2 hours lecture, 3 hours lab)

### ARTT-143 History of Photography 3 Credits (Humanities Core)

This course is a study of photography as a fine art form from its beginnings to contemporary times. Individual photographers' work will be studied in some depth. Genre considerations such as portraiture, documentation, landscape, and the nude will be discussed. Emphasis will be placed on the aesthetic qualities of the photographs. Parallels will be drawn to painting and sculpture and to more recent photographs. (3 hours weekly)

### ARTT-144 Introduction to Color Photography 3 Credits

Using color transparency and negative materials, the student will gain knowledge of the basic principles of color photography. Students will examine theory, techniques and the aesthetics of color photography. Assignments will incorporate a variety of color films and print

materials and various systems of processing. Prerequisite: ARTT-141 and ARTT-142. (2 hours lecture, 3 hours lab)

### ARTT-146 Digital Photography I 3 Credits

In this course students will gain a working knowledge of digital image creation and production. While revisiting traditional photographic themes, such a portraiture, still life, the nude, the landscape, abstraction, montage, and the social document, students will learn the basics of scanning, selection tools, painting and editing tools, color correction, special effects, print options, and more. With an emphasis on content as well as craft, students will learn to design, retouch, and composite images for visual communication and self-expression. Basic computer literacy is highly recommended. Prerequisites: ARTT-112 or ARTT-141. (4 hours weekly)

### ARTT-147 Digital Photography II 3 Credits

This course is an in-depth exploration of the concepts and techniques introduced in ARTT-146. Students will master digital image creation and production. In addition to revisiting traditional photographic themes, students will design images that take advantage of the unique power of digital technology. Prerequisite: ARTT-146. (4 hours weekly)

#### ARTT-151 Ceramics I 3 Credits

This studio ceramics course incorporates information about clay, clay preparation, glazes and glazing techniques, and kiln technology. The course emphasizes handbuilding techniques and clay as a medium of expression. (4 hours weekly)

### ARTT-152 Ceramics II 3 Credits

The student will continue to explore handbuilding techniques and clay as an expressive medium. There will also be an opportunity for a limited number of interested students to work on the potter's wheel. Students in Ceramics II will have more freedom to identify and pursue their own areas of interest. Prerequisite: ARTT-151. (4 hours weekly)

### ARTT-200 Graphic Design 3 Credits

Students will acquire practical introductory knowledge of commercial art and advertising design. They will be able to solve formal problems dealing with fundamental principles and will develop the basic skills necessary to work with specific types of media, especially computergenerated graphic design. The primary objective of this course is to teach students to prepare advertisements and commercial designs from concept to visual communication. Prerequisite: ARTT-101 and ARTT-112. (4 hours weekly)

### ARTT-201 Advanced Color Design 3 Credits

This course provides an in-depth analysis and practical application of two dimensional design concepts through independent projects. Students will explore all aspects of color as an element of the design process, as well as learn to develop designs from simple units to more complex modules, exploring theme and variation forms. Students will gain a visual knowledge, awareness and sensitivity to the visual world and to works of art. Prerequisite: ARTT-101. (4 hours weekly)

### ARTT-202 Introduction to Woodcut Printmaking 3 Credits

The student will be exposed to woodcut as a printmaking process. The student will prepare, use and care for tools and blocks, cut blocks, and print in numbered editions. The student will also understand the history of the woodcut. Prerequisite: ARTT-101. (4 hours weekly)

### ARTT-204 Introduction to Desktop Publishing 3 Credits

In this course, students will use popular Windows-based desktop publishing software to produce documents that are in demand by today's businesses and publishers—brochures, business reports, newsletters, and booklets. The goal of this course is to familiarize students with the process of creating documents—from initial design concepts through production via desktop publishing software and to train students in the proper use of the software's features and commands. Prerequisite: CMSY-102 or CMSY-110 or ARTT-112 (4 hours weekly)

### ARTT-206 Digital Prepress Internship 3 Credits

In this course, students will enhance their skills in digital prepress through an internship in the printing industry. Students will learn the processes and procedures used to turn electronic documents into high quality printed output in a state-of-the-art printing company and, in the process learn to work as a part of a professional creative team. Prerequisites: ARTT-141, ARTT-146, ARTT-200, and ARTT-204.

### ARTT-209 Life Drawing 3 Credits

In this course, students learn the descriptive and expressive drawing of the human body by working from live models and studying human anatomy. Students consider proportions, the skeletal and muscular systems, surface anatomy, foreshortening, drapery, and the expressive use of lighting. Traditional and contemporary approaches to the presentation of the human figure are explored. Prerequisite: ARTT-109. (4 hours weekly)

### ARTT-210 Watercolor Painting 3 Credits

The student will experience all aspects of watercolor painting, learning how to handle and control the media by applying the wet and dry brush techniques. The student will learn the history of watercolor painting and the basic elements, and color and color relationships. Prerequisite: ARTT-101 and ARTT-109. (4 hours weekly)

#### ARTT-211 Painting I 3 Credits

The student will learn the materials, tools, and approaches to painting in oil or acrylic. Color mixing and theory as it applies to painting is a central concern of the course. The emphasis in the course is on technical mastery and direct observation from life. Subjects may include still life, interiors, landscape, portraiture, and figures. Prerequisite: ARTT-101 and ARTT-109. (4 hours weekly)

### ARTT-212 Painting II 3 Credits

This course is a continuation of ARTT-211, Painting I. Students continue to polish their technical skills, and there is more emphasis on conceptual concerns. Con-

temporary approaches to representational painting are studied, and students have more latitude for stylistic exploration. Problems will challenge students' imaginations as well as their technical expertise. Prerequisite: ARTT-211. (4 hours weekly)

#### ARTT-220 Art Museum Resources 3 Credits

This course involves student exposure in the form of approximately eight prearranged, organized field trips or tours to art museums in the Baltimore-Washington area. Museums to be included are the Walters, Baltimore Museum of Art, National Gallery East and West, Hirshhorn, Freer Gallery of Oriental Art, Corcoran, Renwick, and Phillips Collection. Lectures and discussions will be arranged on site at these various museums. Field trips are required. There will be a fee assessed to cover the bus transportation based on the number of students enrolled in the course. Students will be evaluated based upon their participation and through the combination of written summaries and response sheets. Museum connoiseurship includes consideration of gender and other categories of diversity. (8 hours bi-weekly)

#### ARTT-221 Art Museum Field Trips 1 Credit

This course involves student exposure in the form of approximately eight prearranged, organized field trips or tours to the art museums of the Baltimore-Washington area. Museums may include the Walters, Baltimore Museum of Art, National Gallery East and West, Hirshhorn, Freer Gallery of Oriental Art, Corcoran, Renwick and Phillips Collection. Lectures and discussions will be arranged on site at these various museums. Field trips are required. There will be a fee assessed to cover the bus transportation based on the number of students enrolled in the course. Students will be evaluated based upon their participation and a short summary of their experience submitted at the end of the course. Museum connoiseurship includes consideration of gender and other categories of diversity. (8 hours bi-weekly)

#### ARTT-231 Sculpture I 3 Credits

This course is an introduction to the basic elements, materials, and techniques of sculpture. Approaches may include modeling such as with clay, addition such as

assemblage, or subtraction such as carving wood or stone. The student learns how to approach the basic elements of three-dimensional form including scale, mass, color, movement, and use of space in a sculptural manner. Prerequisite: ARTT-101 and ARTT-102. (4 hours weekly)

### ARTT-232 Sculpture II 3 Credits

This course is a continuation of ARTT-231 with an increased emphasis on conceptual concerns. Students learn about contemporary approaches to sculpture and have more latitude for stylistic exploration. Prerequisite: ARTT-231. (4 hours weekly)

### ARTT-241 Photographic Techniques I 3 Credits

This course will continue to focus on skills developed in Intermediate Photography using the camera as a means of creative self-expression and communication. The student will master the design and composition elements that are an intrinsic aspect of photography, and will learn to work independently in developing his or her photographic sense of sight. Extensive lab work will be required with emphasis on experimental darkroom techniques, and mastery of darkroom skills. Prerequisite: ARTT-141 and ARTT-142. (2 hours lecture, 3 hours lab)

### ARTT-242 Photographic Techniques II 3 Credits

This course will examine and apply the materials and elements of experimental photographic techniques to enhance the student's artistic self-expression. Extensive lab work will be required with emphasis on experimental darkroom techniques. Prerequisite: ARTT-141 and ARTT-142. (2 hours lecture, 3 hours lab)

### ARTT-243 Zone System in Photography 3 Credits

This course will examine and utilize a 35 mm approach to the Zone System, the photographic exposure technique developed by Ansel Adams. Students will gain a broader technical knowledge of photographic materials and expand their aesthetic awareness by learning to make conscious, pre-visualized choices in their imagemaking process. This course will concentrate on the

black and white photographic process with a brief examination of color photography and its applications in the Zone System. Prerequisite: ARTT-141 and ARTT-142. (2 hours lecture, 3 hours lab)

#### ARTT-250 Art Portfolio Assessment 1 Credit

This course is designed to prepare advanced visual arts students for the portfolio review process at transfer institutions. Acceptance and placement into programs of advanced study are most frequently based upon a review of a portfolio of the student's work. Each student's portfolio will be reviewed, and strengths, deficiencies, and omissions will be noted. In working sessions during the course of the semester, those deficiencies and omissions will be corrected. Students will learn how to make slides, mat, mount, and otherwise prepare work for the transfer portfolio review. They will review sample portfolios and learn about the transfer review process from admissions officers, alumni, and art instructors. At the end of the course students will have an exit portfolio review where they will have a final assessment of their preparedness for the transfer process. Prerequisites: the core courses ARTT-101, ARTT-102, ARTT-109, ARTT-110 and ARTT-211 (1½ hours weekly for 10 weeks)

#### **ASTRONOMY**

### ASTR-104 Elementary Astronomy 3 Credits (Science Core)

Elementary Astronomy is a one-semester elementary course in descriptive astronomy, especially appropriate for non-science students. The student will become knowledgeable in the areas of historical astronomy, basic tools and methods of astronomy, earth and celestial body motions, characteristics of the sun and its planets, composition and evolution of stars, nature and distribution of galactic systems, role of the space program, and the possibility of life in the universe. For astronomy lab, see ASTR-114. Prerequisite: Eligible to enroll in MATH-070. (3 hours weekly)

#### ASTR-114 Elementary Astronomy Lab 1 Credit (Science Core)

In this course the student will acquire elementary observational, measurement, and experimental experiences

in astronomy. The student will utilize the metric system to measure given objects, make a simple telescope, plot the moon's orbit from phase photos, identify spectral lines, use a microcomputer for simulations and CAI, make and record observations of the sunset location and moon's phases for several weeks, etc. Experiments will be performed to demonstrate scientific concepts used in astronomy. At least one night time observation is required. Prerequisite: Eligible to enroll in MATH-070; Pre- or corequisite: ASTR-104. (2 hours lab)

#### **BIOLOGY**

#### BIOL-101 General Biology I 4 Credits (Science Core)

Following successful completion of Biology 101, the student will be able to describe the characteristics of living things at all levels of organization-from the atomic through the molecular, cellular, and organismal levels. The study of human genetics, development, and anatomy and physiology will enable the student to relate the chemical activities of the cell to the overall function of man. Prerequisite: ENGL-096. (3 hours lecture, 3 hours lab)

#### BIOL-102 General Biology II 4 Credits (Science Core)

This course will enable the student to understand and recognize the evolutionary and environmental relationships that exist between all organisms. The student will be exposed to and will work with representative organisms of all five kingdoms to establish the concept of interrelatedness of all living organisms. Topics such as animal behavior and ecology will be utilized to develop this concept. Prerequisite: BIOL-101. (3 hours lecture, 3 hours lab)

#### BIOL-103 Human Heredity 3 Credits (Science Core)

Human Heredity is an introductory life science course designed for students who are not majoring in the life sciences. Topics in the course include the basic principles of inheritance, a survey of human hereditary characteristics and disorders, and genetic technology and gene manipulation. Current scientific and bioethical questions regarding the present and future applications of genetic analysis and genetic engineering will be considered. (3 hours lecture)

### BIOL-104 Oceanography 3 Credits (Science Core)

This course is designed to introduce the student to the four major disciplines in ocean sciences: biological, chemical, geological and physical oceanography. These areas are studied by describing the composition of the oceans and then by examining the major processes which are active there, such as plate tectonics, ocean circulation, wave and tidal action and food webs. In addition, the course will cover man's use of the ocean as a natural resource and as a waste disposal site. (3 hours weekly)

### BIOL-105 Environmental Science 3 Credits (Science Core)

Following the successful completion of Biology 105, the student will be able to describe the energy, chemistry and climate that make up the earth and its atmosphere. The student will be able to differentiate among the various biomes on earth and recognize the diversity of organisms living in these ecosystems. The study of pollution, natural resources, conservation, and the impact man has had on his environment will enable the student to relate environmental science to how our world works, and what we can do to protect it. Prerequisite: ENGL-096. (3 hours weekly)

#### BIOL-106 Basic Anatomy and Physiology: Biomedical Emphasis 4 Credits

This course is designed for biomedical and other students who need one semester of science which provides a learning sequence of the human body systems, fluid-electrolyte balance and tissues. The integrated approach to studying biological, chemical and physics relationships is stressed. Special emphasis, however, is given to the physics concepts applicable to human physiology. The laboratory program will develop an understanding of the interrelationships of the human body systems. Prerequisite: PHYS-100 or BIOL-101. (3 hours lecture, 3 hours lab)

#### BIOL-107 Fundamentals of Microbiology 4 Credits (Science Core)

Fundamentals of Microbiology is a course designed with a strong emphasis towards the allied health careers. Following the successful completion of Biology 107, the student will be able to describe the characteristics of living things from the molecular to the cellular level for both prokaryotic and eukaryotic cells. The study of microbiology will enable the student to understand the biology of bacteria, fungi, protozoa and viruses in terms of morphology, classification, reproduction, metabolism, genetics, population growth, and disease production. In the laboratory, the student will gain experience with the tools and techniques used in the study of microorganisms. Prerequisite: ENGL-096 or appropriate placement score. (3 hours lecture, 3 hours lab)

### BIOL-108 Human Anatomy and Physiology 6 credits

BIOL-108 is a one-semester course designed for students who wish to undertake an in-depth study of the anatomy and physiology of human body systems. Topics in the course include basic chemistry, cell structure and function, histology, integumentary system, skeletal system, muscular system, nervous system, endocrine system, cardiovascular system, immunity, respiratory system, digestive system, urinary system, fluids and elecrolytes and reproductive system. Students will examine each body system on a microscopic and a gross level. (6 hours weekly)

#### BIOL-115 Environmental Science Laboratory 1 Credit (Science Core)

In BIOL-115, students will investigate the interactions among populations and their environment using field techniques for analyzing water quality, soil formation and erosion, stream ecology, species diversity, intra and interspecific competition, and estimation of population size. Students will experience first hand environmental management problems on field trips to a waste water management site. a solid waste management site, and a recycling site. Pre- or Co-requisite: BIOL-105. (3 hours lab).

#### BIOL-200 Microbiology 4 Credits (Science Core)

Biology 200 is a course designed primarily for premedical professionals and for students planning to major in biological sciences in a four-year institution. The study of microbiology will enable the student to understand the biology of bacteria, algae, fungi, protozoa and viruses in terms of morphology, classification, reproduc-

tion, metabolism, genetics, population growth, environmental effects on growth and disease production. In addition, the student will study basic principles of water pollution, and inhibition and killing of microorganisms. In the laboratory, the student will gain experience with the tools and techniques used in the study of microorganisms. Prerequisite: BIOL-101 and 4 credits of chemistry. (3 hours lecture, 3 hours lab)

#### BIOL-201 Genetics 3 Credits (Science Core)

Following successful completion of Biology 201, the student will be able to describe the principles of inheritance in terms of the structure and function of genetic material in viruses, bacteria, and higher organisms; the transmission and expression of genetic information; sex determination and sex chromosomes; extrachromosomal inheritance; gene mutation; recombination and regulation; genetic control of metabolism, development and behavior; and recombinant DNA techniques. The student will also utilize the principles of inheritance to solve real and simulated problems in human genetic counseling and in plant and animal breeding. For genetics lab, see BIOL-202. Pre-requisite: BIOL-101 and MATH-070. (3 hours lecture)

#### BIOL-202 Genetics Lab 1 Credit (Science Core)

In BIOL-202, students will investigate the basic principles of genetics using various organisms, including Drosophila, bacteria, fungi, viruses, green plants and human cells. Students will utilize various laboratory techniques including microscopy, photomicroscopy, slide preparation, micro-dissection, paper chromatography, gel electrophoresis, bacterial culture and statistical analysis. Computer simulations will also be utilized. Pre- or Corequisite: BIOL-201. (3 hours lab)

#### BIOL-203 Anatomy and Physiology I 4 Credits (Science Core)

Biology 203 is a course consisting of an integrated sequence of physical, chemical and biological principles relating to living systems. This course is designed for students whose curriculum requires a sequential two-semester science learning program (BIOL-203 and BIOL-204) which provides an in-depth study of the anatomy and physiology of the human body systems. The body

topics studied in Biology 203 include histology, the integumentary system, skeletal system, muscular system, nervous system, endocrine system and special senses. The laboratory program will develop an understanding of the interrelationships of the human body systems. The laboratory includes animal and organ dissections as well as work with skeletons, models, slides and experimental studies of physiological processes. Prerequisite: BIOL-101 or BIOL-107. (3 hours lecture, 3 hours lab)

#### BIOL-204 Anatomy and Physiology II 4 Credits (Science Core)

This course is a continuation of BIOL-203 and consists of an integrated sequence of physical, chemical and biological principles relating to the circulatory system, respiratory system, digestive system, urinary system, fluid-electrolyte balance, and reproductive system. This course will enable the student to describe the mechanisms of the human body in terms of the structures and functions of the systems studied. The laboratory program will develop an understanding of the interrelationships of the human body systems. The laboratory includes animal and organ dissections as well as work with skeletons, models, slides and experimental studies of physiological processes. Prerequisite: BIOL-203. (3 hours lecture, 3 hours lab)

#### BIOL-205 Cell Biology 4 Credits

This is a one-semester course designed for biology majors, biochemistry majors, laboratory science majors, and pre-professional and pre-allied health science students. The course will provide the student with an understanding of biological processes at the cellular and molecular level. Experimental approaches used in cell biology will be emphasized. Topics will include the structure and function of biological membranes, cytoskeletal elements, cell metabolism and energy transformation, cell growth and replication, second messenger systems, signal transduction, electrical properties, cell contact and adhesion and intercellular communication. An emphasis will be placed on eukaryotic cells. The laboratory component will reinforce these topics and introduce the student to techniques used in modern cell biology. Prerequisite: BIOL-101 and CHEM-101. (3 hours lecture, 3 hours lab)

### BIOL-206 Nutrition for Health Services 3 Credits

This course, designed mainly for students in the health profession, will enable the student to examine the basic principles of normal human nutrition and concepts of applied nutrition. The student will answer questions and solve problems involving the digestion, absorption, and metabolic functions of the nutrients in the body; caloric requirements; dietary standards; nutrient composition of foods and selection of an adequate diet; and changing nutrient requirements during the different stages of development. In addition, the student will study the influence of social and economic factors on food choices. Prerequisite: CHEM-104 or CHEM-201 and BIOL-204. (3 hours weekly)

#### BIOL-290H Biology Research - Honors 3 Credits

Biology Research is an honors course which provides students with an opportunity to engage in biological research. With the guidance of a faculty member, students select a research topic, carry out a literature search, design and execute appropriate research, write a scientific paper, and deliver a formal oral presentation to the class and science faculty. There is an emphasis on oral communication throughout the semester including weekly oral progress reports followed by class discussion and feedback as well as the final oral presentations. Prerequisite: A or B in BIOL-101, ENGL-101 or ENGL-111 and consent of instructor. (3 hours weekly)

# BIOMEDICAL ENGINEERING TECHNOLOGY

### BMET-112 Electro-Mechanical-Fluidic Devices I 3 Credits

The student, upon successful completion of this course, will be able to utilize the basic concepts to investigate the physics of and the interrelation between electrical, mechanical, fluidic and optical systems. The student will know the basic components of each system, where in the overall system they occur and what their function is toward the correct operation of the system. Prerequisite: PHYS-100 and ELEC-107 or ELEC-111. (2 hours lecture, 3 hours lab)

### BMET-211 Biomedical Instrumentation I 5 Credits

The student will be able to classify biomedical instruments into areas such as support, laboratory, diagnostic, patient monitoring, therapeutic, x-ray, etc. Biomedical transducers will be introduced and students will make application of the terms of sensitivity, resolution, recordability, readability, linearity and accuracy in order to effect correct usage. Prerequisite: ELEC-114, BMET-112 and BIOL-106. Co-requisite: ELEC-211, ELEC-213. (4 hours lecture, 3 hours lab)

### BMET-212 Biomedical Instrumentation II 5 Credits

In this theoretical-practical course, the student will utilize electronic and mechanical principles for maintenance and repair of biomedical equipment (electro-mechanical, clinical lab, ultrasonics, patient monitoring, x-ray and radiation). Students will be in a simulated clinical setting where they will perform onsite repairs and preventative maintenance. Prerequisite: BMET-211, ELEC-211 and ELEC-213. (4 hours lecture, 3 hours lab)

#### **BUSINESS ADMINISTRATION**

### BMGT-100 Introduction to Business and Organization

3 Credits

In this course, the student will be able to identify and describe current organizational and management and marketing principles and practices as they are occurring in today's business world. Students will be able to analyze various types of organizations within which they may work and the management problems encountered in these organizations. Students will also recognize changes that are presently occurring in many businesses by hearing guest speakers, watching videos, and reading current business periodicals. Some role-playing and written reports will be required from these activities. (3 hours weekly)

### BMGT-102 Records Management 3 Credits

After successful completion of this course, the student will be able to store, control, set retention schedules, transfer and dispose of records in a business office.

Through the use of a realistic practice set, the student will be able to correctly set up and control the four basic types of paper records storage systems—alphabetic, numeric, subject, and geographic. The student will learn how to use Microsoft Access to create, use, and revise databases. (3 hours weekly)

### BMGT-130 Principles of Marketing 3 Credits

Through lectures, videos, class analysis and writing assignments on such topics as marketing research, segmentation, product pricing, distribution and promotion strategies and marketing in the international arena, students will learn to apply basic marketing principles. Students will analyze marketing strategies used by various companies—both successful and unsuccessful strategies. Prerequisite: BMGT-100. (3 hours weekly)

#### BMGT-150 International Business Issues Seminar

### 1 Credit (Interdisciplinary and Emerging Issues Core)

In this course, students will study five different regions of the world (Asia, Africa, Central/South America, Europe and North America), analyzing current political, social, economic, and trade issues in each of these areas. The class will meet for ten weeks, studying each geographic area for two weeks with the second week spent on a more in-depth study of one of the countries in each of the five regions of the world. Students will analyze and summarize articles to develop a political, economic, social, cultural and trade profile of that country. A seminar format will be used, with students working in pairs or threes to develop and present a seminar. There are two options for taking this course. The first is as a one-credit business course. The second is in conjunction with BMGT-100 for an honors designation. (Some screening will be done for the honors options.) (1 hour weeklv)

### BMGT-151 Business Law I 3 Credits

First in a series of two courses that survey the areas of law that are likely to affect modern business entities. After successful completion of this course, the student will be able to identify and analyze basic legal issues arising in criminal law, negligence, intentional torts,

strict liability offenses, contract law, and sales. Business ethics, litigation, alternative dispute resolution techniques, and the historical aspects of the American legal system are also covered. Application of the Maryland common law will be emphasized throughout the course. (3 hours weekly)

### BMGT-152 Business Law II 3 Credits

Second in a series of two courses. After successful completion of this course the student will be able to identify and discuss basic legal issues arising in agency and employment law; formation, operation and dissolution of various types of business entities including corporations and partnerships; the law of property and bailments; and commercial paper. Various issues concerning government regulation of business may also be covered. Prerequisite: BMGT-151. (3 hours weekly)

### BMGT-175 Business Communication 3 Credits

After successful completion of this course, the student will be able to discriminate between examples of writing that have the qualities of an effective letter and those that do not. The student will be able to detect why a letter is not effective and change it into a well-written letter. The student will be able to write letters in the following areas: inquiries and replies, sales, adjustment, credit and collection, goodwill, and employment. (3 hours weekly)

### BMGT-201-202 Business Work Experience I and II

#### 3 or 4 Credits

See COOP-201-202 Cooperative Education Work Experience I and II.

### BMGT-230 Principles of Advertising 3 Credits

Students in this course will learn to apply the principles of advertising at an introductory level. The course will be conducted by lecture, class participation, and student involvement in projects. Movies, tapes, and guest speakers will be utilized when appropriate and available. This course covers advertising procedures and practices from early origins to multi-faceted campaigns conducted by advertising agencies and company-oper-

ated advertising departments. Included in the course will be such subjects as target marketing, media strategy, the use of various media in constructing an ad, and the laws affecting advertisers. Prerequisite: BMGT-100. (3 hours weekly)

# CARDIOVASCULAR TECHNOLOGY

### CARD-101 Cardiovascular Assessments 3 credits

Includes fundamental physical assessments and cardiovascular procedures including electrocardiogram, cardiac stress test, and ambulatory monitoring. The use and maintenance of equipment and identification of arrhythmias is emphasized. Students will develop a knowledge base and skills to perform basic cardiac assessments under supervision in a clinical laboratory. Prerequisite: Admission into the Cardiovascular Technology Program. See specific program requirements. (2 hours lecture, 3 hours lab)

### CARD-103 Physical Principles of Medicine 3 credits

This course encompasses the physical principles and mathematical equations specifically applicable to the field of cardiovascular technology. The course includes studies in using mathematic formulas, chemistry and physics to evaluate the hemodynamics of the cardiovascular system. Prerequisite: PHYS-100, MATH-124, and CHEM-103 or equivalents. (3 hours weekly)

# CARD-108 Advanced Anatomy and Pathophysiology

#### 3 credits

This course is designed for students enrolled in the Cardiovascular Technology Program. It will provide an in-depth study of cardiovascular anatomy and pathophysiology, to include circulatory dynamics, cardiac output and control mechanisms. Also included will be pathophysiological mechanisms of embryology, congenital and acquired cardiovascular diseases. The information gained through this course will serve as the foundation upon which subsequent cardiovascular topics and themes will be built. Prerequisite: BIOL-106 (3 hours lecture)

#### CARD-115 X-Ray Theory 1 Credit

The student is introduced to techniques necessary to produce radiographs. This course includes discussion of the fundamentals of radiographic exposure, cine film processing, radiographic protection and x-ray theory. Prerequisite: CARD-101. (1 hour weekly)

### CARD-201 Cardiovascular Pharmacology 2 credits

This course is designed to prepare the cardiovascular student to choose, handle and administer the numerous cardiovascular and related drugs utilized in invasive and noninvasive Cardiology. The general principles of pharmacology such as pharmacokinetics, dose calculations, routes of administration, substrates, side effects and adverse effects will be emphasized. Prerequisite: CARD-108 (2 hours weekly)

### CARD-203 Medical Instrumentation 2 credits

This course is intended to introduce the student to the various types of medical instrumentation. The student will learn to prepare, calibrate, operate equipment and record and measure bioelectric signals. Preventive maintenance, inspection, performance testing and trouble shooting are covered, with emphasis on electrical safety. Prerequisite: CARD-108. (1 hour lecture, 3 hours lab)

# CARD-206 Diagnostic & Interventional Cardiovascular Procedures 4 credits

This course is planned for students currently employed in a cardiac catheterization laboratory. The theory and application of vascular access and angiographic procedures is presented. Students study the indications and contraindications to diagnostic and interventional adult and pediatric cardiac catheterization and specific vascular imaging examinations. Emphasis will be placed on pressure wave form analysis and measurement, hemodynamic calculations, image enhancement procedures, proper operation of catheterization equipment and new technologies. (4 hours lecture)

### CARD-207 Diagnostic and Interventional Procedures

#### 9 credits

Students will work directly with patients to explain and perform procedures and to assess response to interventions. The course introduces the student to the practice of sterile technique, isolation procedures and emergency care procedures. The theory and application of vascular access and angiographic procedures is presented. Students study the indications and contraindications to diagnostic and interventional adult and pediatric cardiac catheterization and specific vascular imaging examinations. Emphasis will be placed on pressure wave form analysis and measurement, hemodynamic calculations, image enhancement procedures, proper operation of catheterization equipment and new technologies. Prerequisites: CARD-101 and CARD-108. (4 hours lecture, 15 hours lab)

### CARD-231 Applied Clinical Practicum 3 credits

Clinical experience in procedures performed in invasive cardiology. This includes using the equipment, performing tests, and giving patient care as it relates to the cardiovascular area. Prerequisite: CARD-207. (12 hours lab weekly)

### CARD-250 Advanced Interventional Radiology Procedures

#### 3 credits

This course is for students currently employed in an Interventional Radiology setting. The anatomy and procedural aspects of performing vascular interventional studies of the head, trunk and extremities are examined. Patient preparation, imagining techniques and equipment selection are outlined. In the clinical setting students will apply theory. (2 hours lecture, 3 hours lab)

### CARD-251 Advanced Interventional Procedures

#### 5 credits

The student will observe and assist the physician in performing intravascular interventional radiological operative procedures. The student will develop competency in performing interventional radiological procedures for adults and children. Theory support will include an

in-depth review of the anatomy and physiology of the circulatory, neurologic, respiratory, genitourinary, hepatobiliary, lymphatic and gastrointestinal system. Prerequisite: CARD-207. (2 hours lecture, 9 hours lab)

### CARD-261 Clinical Internship 4 credits

Practicum in a clinical setting. Student will refine clinical skills by active participation in a cardiovascular department. Opportunity will also be provided for observation in alternative sites for technologists in the field. On campus seminar session includes opportunity for case study presentations relative to the field of invasive cardiovascular technology. Advanced Cardiac Life Support (ACLS) certification is a required outcome of this course. Corequisite: CARD-251. (24 hours lab weekly)

#### **CHEMISTRY**

#### CHEM-101 General Inorganic Chemistry I 4 Credits (Science Core)

Designed mainly for science majors and pre-professional students, this course will enable the student to solve problems and answer questions involving mole concept, gas laws and kinetic theory, stoichiometry and chemical equations, solutions, and atomic structure and electronic arrangement. Independent lab experiments will provide students with data they can appraise, use, and interpret to identify properties and/or unknown chemical substances. Prerequisite: Eligible to enroll in MATH-070. (3 hours lecture, 3 hours lab)

#### CHEM-102 General Inorganic Chemistry II 4 Credits (Science Core)

This course, designed mainly for science majors and pre-professional students, will enable students to solve problems involving chemical thermodynamics, chemical equilibrium, ionic and heterogeneous equilibria in aqueous solutions, electrochemistry, and reaction rates. Independent lab experiments will provide students with data that they can appraise, use, and interpret to identify unknowns in qualitative and quantitative analysis. Prerequisite: CHEM-101. (3 hours lecture, 3 hours lab)

### CHEM-103 Fundamentals of General Chemistry

#### 4 Credits (Science Core)

This one semester course is designed mainly for students who are interested in the allied health field. This course will provide the student with an introduction to inorganic chemistry and general chemical principles. The student will be able to answer questions and solve problems involving measurement, atomic structure, chemical bonding, molecular structure, chemical reactions, stoichiometry, gas laws, solutions, kinetics, equilibrium and nuclear reactions. Laboratory experiments will provide the student with opportunities to collect and analyze data and identify unknown chemical substances from their properties. Prerequisite: Eligible to enroll in MATH-070. (3 hours lecture, 3 hours lab)

### CHEM-104 Fundamentals of Organic and Biochemistry

#### 4 Credits

This one-semester course is designed mainly for preprofessional science students who are interested in the allied health field. This course will provide the student with an introduction to organic and biochemistry. The student will be able to answer questions and solve problems involving nomenclature, physical properties, and the synthesis of aliphatic compounds such as alkanes, alcohols, carboxylic acids, aldehydes and ketones. The major organic biomolecules such as lipids, proteins and carbohydrates, including their function in cells and tissues, will be studied. The laboratory component will develop skills necessary to synthesize and analyze organic compounds. Prerequisite: CHEM-101 or CHEM-103. (3 hours lecture, 3 hours lab)

### CHEM-105 Chemistry and Society 3 Credits (Science Core)

After successful completion of this course, the student will have an understanding of basic chemical concepts and knowledge of the benefits of chemical technology to the consumer. The student will also understand the complexity of the major environmental problems plaguing our nation and the planet. Co-requisite: CHEM-115. (3 hours weekly)

#### CHEM-115 Chemistry and Society Lab 1 credit (Science Core)

After successful completion of this laboratory, students will have an understanding of the metric system, basic laboratory measurements and instruments. Students will investigate methods of recycling, separation, synthesis and chemical analysis using samples of common household substances. Students will analyze labels and claims from a consumer's point of view. Pre- or co-requisite: CHEM-105. (3 hours lab)

#### CHEM-201 Organic Chemistry I 4 Credits (Science Core)

Chemistry 201, a course designed mainly for science majors and pre-professional students, will enable the student to answer questions and solve problems involving nomenclature, physical properties and synthesis of aliphatic compounds, such as alkanes, alcohols, carboxylic acids, aldehydes and ketones. In the lab program, the student will acquire skills in laboratory techniques, prepare organic compounds, study their properties, and interpret data collected to identify unknowns. Prerequisite: CHEM-101. (3 hours lecture, 3 hours lab)

#### CHEM-202 Organic Chemistry II 4 Credits (Science Core)

A course designed mainly for science majors and preprofessional students, Chemistry 202 will enable the student to answer questions and solve problems involving aromatic compounds and their derivatives, carbohydrates, amino acids, and fats. In the lab program, the student will acquire skills in laboratory techniques, prepare organic compounds, study their properties, and interpret data collected to identify unknowns. Prerequisite: CHEM-201. (3 hours lecture, 3 hours lab)

### CHEM-290H Chemistry Research - Honors 3 Credits

Chemistry Research is an honors course which provides students with an opportunity to engage in chemical research. The goal of this course is to develop chemical research skills. The instructor will be working closely with students as they choose, develop, and carry out a research project. Students will learn how to use state-of-the-art research equipment that can be applied to their own research project. The instructor will provide assistance with the learning of laboratory tech-

niques, statistical methods, library research, computerassisted data analysis, and research paper writing. Prerequisite: A or B in CHEM-101 and consent of instructor. (3 hours weekly)

#### **COMPUTER-AIDED DESIGN**

#### CADD-100 Principles of Drafting 3 Credits

The objective of this course is to introduce the student to the language of graphics used in engineering and technology. The student will acquire an understanding of orthographic projections, sections, conventions, threads and fasteners, pictorial drawings, auxiliaries and revolutions. Mechanical assembly and detail drawings, architectural plans and elevations and elements of electrical/ electronic and printed circuit drawings are discussed and illustrated. Other topics covered are lettering, scaling, dimensions, holes, fillets, rounds fasteners, fittings and title block specifications. Students use drawing instruments, such as the triangle, ruler and compass and do some free-hand sketching. (2 hours lecture, 2 hours lab)

#### CADD-101 Introduction to Computer-Aided **Drafting and Design**

#### 3 Credits

This course introduces the student to the CAD system. The student will receive "hands-on" training and will develop the techniques that are essential in today's job market. The student will learn how to adapt basic technical drafting techniques to computer generated drawings of the various drafting disciplines. (2 hours lecture, 2 hours lab)

#### CADD-103 Intermediate CAD 3 Credits

The student will learn how to adapt the principles of descriptive geometry when applied to "real-world" applications, involving using the Cadd system to create Isometric and 3-D drawings. The student will have the opportunity to work on drawings used in various technical fields, such as mechanical engineering, architecture and electronics. The student will learn current production techniques to automate the drawing process and how to develop intelligent technical documents. Prerequisite: CADD-101. (2 hours lecture, 2 hours lab)

#### CADD-104 Advanced CAD 3 Credits

The student will learn the programming methods and techniques required to develop an applications package for the CAD system. The students will learn the CAD system's file structure and how to manipulate its database. The students will learn how to create customized menus and macro programming applications and techniques. Prerequisite: CADD-103. (2 hours lecture, 2 hours

#### CADD-105 CAD Projects and Presentations 3 Credits

In this course, the student will combine all the skills and technique of the previous courses to plan and develop a project. The student will learn current production accounting techniques while developing the project. The student will experience the cost factors that directly affect a project. The student will learn the various presentation techniques using computer graphics to enhance the project. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111; CADD-104. (2 hours lecture, 2 hours lab)

#### CADD-106 CAD Systems 3 Credits

Prior to taking this course, the student would have acguired an in-depth knowledge and be well-versed in at least one CAD system used in industry. This course is intended to broaden the student's knowledge in other popular CAD packages by studying similarities and differences of the various commands and techniques. The student will experience the problems of translating between various Cadd systems. The objective of this course is to prepare the student to adapt in an industrial environment quickly and easily to any of the most widely used CAD systems. Prerequisite: CADD-105. (2 hours lecture, 2 hours lab)

#### CADD-107 CAD Animation 3 Credits

This course is to introduce the student to the concepts of 2D/3D computer animation. The student will develop and apply traditional animation techniques using com-

puter software. The applications of computer animation will include engineering, visualization, advertising, and multimedia. (2 hours lecture, 2 hours lab)

#### **COMPUTER SYSTEMS**

#### CMSY-101 Beginning Spreadsheets 1 Credit

After successful completion of this course, students will be able to use Microsoft Excel to build, revise, and enhance worksheets; to work with charts and databases; and to create macros. This course may be completed in fewer than 14 weeks and may be started at any time during the school year. All of the work (except tests) may be done outside of class if student has compatible software.

### CMSY-102 Beginning Word Processing 1 Credit

After successful completion of this course, the student will be able to use Microsoft Word to create, format and print documents. This course may be completed in fewer than 14 weeks and may be started at any time during the school year. All of the work (except tests) may be done outside of class if student has compatible software. Prerequisite: Keyboarding skills.

#### CMSY-103 Beginning Databases 1 Credit

After successful completion of this course, students will be able to use Access to create and revise databases, to sort and query, and to prepare forms and reports. This course may be completed in fewer than 14 weeks and may be started at any time during the school year. All of the work (except tests) may be done outside of class if student has compatible software.

#### CMSY-104 Advanced Word Processing 1 Credit

After successful completion of this course, the student will be able to produce documents using advanced Microsoft Word features. This course may be completed in fewer than 14 weeks and may be started at any time during the school year. All of the work for the course (except tests) may be done outside of class if student has compatible software. Prerequisite: CMSY-102.

#### CMSY-105 Personal Computer Systems Repair I

#### 3 Credits

Upon completion of this course, the student will have a basic technical understanding of the function and operation of the major elements of personal computer systems, and how to localize and correct common hardware problems. Students will have hands-on experience using 386, 486 and pentium based systems. The course will focus on broad concepts and diagnostic tools which allow the student to rapidly determine the condition of a PC system and how best to rectify a fault. Special emphasis will be placed on how systems are configured, modified, and expanded to meet new requirements. Different software tools like CheckitPro, Norton Utilities and DOS utilities will be used to diagnose the problems. This course, along with CMSY-106, prepares students for the hardware level of A+ certification offered by the Computer Industry Association. The material is preparatory for the follow-on course, CMSY-106, Personal Computer Systems Repair II. (2 hours lecture, 3 hours lab)

#### CMSY-106 Personal Computer Systems Repair II

#### 3 Credits

Upon completion of this follow-on course, the student will have a basic technical understanding of the function and operation of the major peripheral devices used with or connected to personal computer systems, and how to localize and correct common hardware problems associated with those devices. The major peripheral devices which are emphasized in this course include state-of-the-art data storage devices, display technology, printers, scanners, SCSI devices, multimedia devices, modems, and local area network devices. Emphasis will be placed on techniques for installing, configuring, maintaining, testing and fault isolating these devices within the PC systems. The student will also learn IRQ conflict resolution, I/O address setting, DMA channel conflict resolution, optimizing memory, fine tuning autoexec.bat, config.sys files and Windows initializing files (.ini files) and configuring systems with Windows. This course, along with CMSY-105 - prerequisite, prepares students for the hardware level of A+ certification offered by the Computer Industry Association. Prerequisite: CMSY-105 (2 hours lecture, 3 hours lab)

#### CMSY-110 Software Applications for Micros 3 Credits

After successful completion of this course, the student will be able to use word processing, spreadsheet, database, and presentation graphic software. This course is designed for the beginning student and does not include advanced concepts. Keyboarding skills are strongly recommended. (2 hours lecture, 2 hours lab)

### CMSY-113 Intermediate Database 3 Credits

By the end of this course, the student will be able to apply and use the database management software package, including custom screens, labels, multiple files and study of programming language. The student will use Microsoft Access. Prerequisite: CMSY-103 or CMSY-110. (2 hours lecture, 2 hours lab)

### CMSY-114 Intermediate Spreadsheets 3 Credits

By the end of this course, the student will be able to plan and create business spreadsheet applications using software such as Lotus 1-2-3 or QUATTRO. The applications will include statistical, logical, financial and string @ functions; graphics; data manipulation; macros; programming custom menus and transferring data to/from other software. Documentation and testing of models is emphasized. Prerequisite: CMSY-110. (2 hours lecture, 2 hours lab)

#### CMSY-115 Introduction to Desktop Publishing 3 Credits

Through this course, the student will learn the underlying operational principles and intricacies of Ventura publishing and how to use and apply them. The student will be able to typeset, lay out, and print typewritten text by using elements of page design and graphics. Emphasis will be on designing effective visual presentations for the simple to complex publication. Prerequisite: CMSY-102 or CMSY-110 or word processing experience. (2 hours lecture, 2 hours lab)

#### CMSY-116 PowerPoint 1 Credit

After successful completion of this course, the student will be able to design and prepare PowerPoint presentations, which include the graph, outline, and notes

features. This course may be completed in fewer than 14 weeks and may be started at any time during the school year. All of the work for this course (except tests) may be done outside of class if student has compatible software.

#### CMSY-117 Spreadsheet Projects 1 Credit

After successful completion of this course, students will be able to apply the skills learned in a beginning Excel course. Students will create, edit, and format worksheets and work with charts, lists, and the data analysis features of Excel. This course may be completed in fewer than 14 weeks and may be started at any time during the school year. All of the work (except tests) may be done outside of class if student has compatible software. Prerequisite: CMSY-101.

#### CMSY-118 Database Projects 1 Credit

After successful completion of this course, students will apply skills learned in a beginning Access course. Students will create different types of databases as well as custom reports that present selected database information in a useful way. This course may be completed in fewer than 14 weeks and may be started at any time during the school year. All of the work (except tests) may be done outside of class if student has compatible software. Prerequisite: CMSY-103

### CMSY-119 Word Processing Projects 1 Credit

After successful completion of this course, students will be able to apply the skills learned in an advanced Word course. Students will create, edit, and format documents in addition to working with graphics, mail merge, and multiple-page documents. This course may be completed in fewer than 14 weeks and may be started at any time during the school year. All of the work may be done outside of class if student has compatible software. Prerequisite: CMSY-104

### CMSY-120 Introduction to Computer Systems 3 Credits

By the end of this course, the student will be able to describe the historical development of computers, the characteristics, components and use of computer sys-

tems as well as the major programming languages. The fundamentals of problem solving and programming in a high-level language such as BASIC will be discussed and demonstrated. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111 and MATH-061.

### CMSY-121 Structured Logic and Program Design

#### 3 Credits

Upon completion of this course, students will have acquired the skills needed to design and document structured solutions to various programming applications. A variety of problem solving tools will be introduced, as will data representation, documentation techniques and the use of various editors. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111 and MATH-061.

#### CMSY-126 Introduction to Internet 1 Credit

After successful completion of this course, the student will be able to use the Internet to perform simple searches, use e-mail features, post to newsgroups, and create a basic web page. Familiarity with a computer and file management skills are strongly recommended before enrolling in this course.

### CMSY-129 Principles of Internet 3 Credits

The Internet is an ever-growing repository of information, providing access to research databases, business forums, educational information, government and news sources, software programs, and worldwide communication capability. This course will introduce the student to all facets of the Internet. We will begin by understanding the underlying technologies, followed by an understanding of Internet connection and use of popular Internet tools and applications. Additionally, we will discuss the legal, moral, ethical, and security issues associated with use of the Internet. Familiarity with a computer and file management skills are strongly recommended before enrolling in this course.

### CMSY-132 Introduction to Windows 1 Credit

After successful completion of this course, the student will be able to understand and use Windows. An em-

phasis is on managing folders and files and customizing the desktop. This course may be completed in fewer than 14 weeks by attending class more hours per week. This class may be started at any time during the school year. All of the work for this class (except tests) may be done outside of class if the student has Windows. Prerequisite: Familiarity with a computer is strongly recommended.

### CMSY-133 Avatars and Virtual Worlds 3 credits

This course examines and tests the changing technologies on the web. Students will explore three-dimensional worlds on the internet including panoramic sites, VRML, MOOs, and gaming sites. Students will explore online communities and work with file sharing utilities. Prerequisite: CMSY-126 or CMSY-129.

#### CMSY-134 Introduction to DOS 1 Credit

After successful completion of this course, the student will be able to list, backup, delete, and copy files; design, create, and navigate a tree-structured directory system; and write simple batch files. This course is designed to meet the needs of students who want to increase their ability to manipulate files and backup their data. It requires less time and technical knowledge than CMSY-219. All of the work for this course may be done outside of class if the student has Windows 95 or Windows 98. Prerequisite: Familiarity with a computer is strongly recommended.

### CMSY-136 Integrated Software Applications 1 Credit

After successful completion of this course, students will be able to use the integration features of Microsoft Office to copy, paste, link, and embed files from one program to another, using Word, Excel, Access, and PowerPoint. Basic through advanced integration skills are covered. This course may be completed in fewer than 14 weeks and may be started at any time during the school year. All of the work may be done outside of class if student has compatible software. Prerequisite: CMSY-101, CMSY-103, CMSY-104, CMSY-116, and CMSY-126.

### CMSY-137 Doing Reserach on the Internet 3 credits

This course examines research tools for the internet in depth. Students will use and compare search engines, directories, specialized databases, virtual libraries and catalogs, FTP archives, in-depth company information, e-mail, phone and map information, and usenet and discussion lists. Prerequisite: CMSY-126 or CMSY-129.

### CMSY-138 Information Systems and Computer Applications

#### 3 credits

This course focuses on knowledge and basic concepts of computers and their applications. Students will study concepts and techniques applicable to a computer hardware and its functions, computer software, system development life cycles, computer programming, data management, telecommunications, organizational and user support systems, information processing management, and social and ethical issues.

### CMSY-139 Doing Business on the Internet 3 credits

This course is designed for students in the business curriculum and individuals who are currently working in the business arena. This course will expose the student to a variety of internet based applications that will benefit any business. The course will cover topics such as electronic commerce, paperless publications, international outreach, collaborative software, research and video conferencing. Prerequisite: CMSY-126 or CMSY-129.

#### CMSY-141 Computer Science I 4 Credits

This course provides an introduction to the C++ programming methodology—from algorithm development and documentation to object-oriented programming. Upon successful completion, students will be able to write programs of moderate complexity and length which include standard data types, control structures, user written and library functions, arrays, structures, recursion, stream I/O, and simple classes and objects. Preor co-requisite: MATH-140 and eligible to enroll in ENGL-101. (3 hours lecture, 2 hours lab)

#### CMSY-171 Computer Science II 4 Credits

This course provides data structure implementation in C++ including dynamic arrays, linked lists, binary trees, and various search algorithms. Advanced object-oriented programming concepts and development will also be covered, including composite classes and inheritance, operator and function overloading, encapsulation and polymorphism. Prerequisite: CMSY-141. (3 hours lecture, 2 hours lab)

### CMSY-177 Microsoft Office User Proficient 3 Credits

This course provides students skills in Microsoft Office products at the intermediate level. Students will master the skills tested at the proficient level on the Microsoft Office User Specialist exams for Word and Excel. Sharing data between applications (including PowerPoint and Access) will be covered. Prerequisite: CMSY-110 or both CMSY-101 and CMSY-102. (2 hours lecture, 2 hours lab)

# CMSY-178 Introduction to Database Application Development

3 credits

This course is designed to give students the knowledge and experience to be proficient data base developers. The student will learn the fundamentals of relational databases and the kinds of applications that are suited to them. Project management for database application design and development will be emphasized. Students will learn to create and use database objects according to project requirements. The student will use Microsoft Access 2000 and Visual Basic for Applications (VBA). Prerequisite: CMSY-110. (3 hours lecture, 1 hour lab)

### CMSY-181 Introduction to C++ Programming 4 Credits

This course provides an introduction to the C++ programming methodology—from algorithm development and documentation to object-oriented programming. Upon successful completion, students will be able to write programs of moderate complexity and length which include standard data types, control structures, user written and library functions, arrays, structures, recursion, stream I/O, and simple classes and objects. Pre-

requisite: CMSY-121, CMSY-190 or CMSY-220. (3 hours lecture, 2 hours lab)

### CMSY-190 Introduction to Visual Basic 3 Credits

Upon completion of this course, students will have acquired the skills needed to design, write, test, debug and document programs using Visual Basic. Topics covered will include: basic instructions to include looping and array processing, VB controls and their properties and events, customized menus and simple file manipulation. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111 and MATH-061. (2 hours lecture, 2 hours lab)

### CMSY-195 Intermediate Visual Basic 3 Credits

Upon completion of this course, students will be able to incorporate intermediate coding techniques and powerful graphical controls into their Visual Basic projects. Major topics include: programming a database; mouse events, keyboard events and trappable errors; grid controls; object variables and collections; the Multiple Document Interface (MDI); and an introduction to the Windows environment. Prerequisite: CMSY-190. (2 hours lecture, 2 hours lab)

### CMSY-199 Introduction to Java 3 Credits

Upon completion of this course, students will be able to demonstrate an understanding of the Java programming language and skills in the development and use of Java applets and applications using the Java Development Kit (JDK). Prerequisite: CMSY-140 or CMSY-141 or CMSY-180 or CMSY-181 or CMSY-190. (2 hours lecture, 2 hours lab)

# CMSY-201-202 Computer Systems Work Experience I and II

#### 3 or 4 Credits

See COOP-201-202 Cooperative Education Work Experience I and II

#### CMSY-219 Microcomputer Operating Systems— DOS

#### 3 Credits

In this course students will examine the operation of the system software of a microcomputer (Disk Operating System or DOS). The student will be able to use the system commands to create and alter the microcomputer environment. The goal of this course is to familiarize each student with the operating system software, define the role of the software, and to train each student in the proper use of the operating system software. DOS versions including 3.x, 5.0 and 6.0 will be referenced. Prerequisite: CMSY-110 or CADD-101. (2 hours lecture, 3 hours lab)

### CMSY-220 Assembly Language 3 Credits

By the end of this course, the student will be able to demonstrate an understanding of the capabilities and functions of Assembly Language in general. In addition, the student will understand the specific internal data representation and instruction set available on the particular CPU being used, an IBM-PC. Students will establish data and program areas in storage, and use processor instructions to perform calculations, input-output and data manipulation. Prerequisite: CMSY-121 or CMSY-140 or CMSY-141 or CMSY-180 or CMSY-181. (2 hours lecture, 2 hours lab)

### CMSY-250 Systems Analysis and Design 3 Credits

By the end of this course, the student will be able to analyze an organization's existing procedures by using such tools as data analysis sheets, system flowcharts, process charts, GANTT charts, decision tables and documents which define system requirements and specifications. The overall goal of the course is for the student to be prepared to go through the process necessary to improve the functioning of an existing system or to design a new one. Prerequisite: CMSY-121. (3 hours weekly)

### CMSY-255 Introduction to Unix 3 credits

This course provides an introduction to Unix using the Linux operating system. The goal of this course is to provide the users with a basic understanding of Linux so that the users will be able to customize a Unix environment under the shell and GUI environment. Prerequisite: CMSY-219. (3 hours lecture, 1 hour lab)

### CMSY-256 Linux Server Administration 3 credits

This course provides the core foundation for supporting Linux. Students will perform system administration tasks, and install and configure a Linux workstation to an existing network. Prerequisite: CMSY-255. (3 hours lecture, 1 hour lab)

## CMSY-271 Introduction to Multimedia Applications

#### 3 Credits

Multimedia applications use computer controlled graphics, sound, text, and video to present information. Students will learn to define multimedia (MM), to describe the uses and impacts of MM, to define and use MM objects and links, to identify the five basic MM design paradigms, and to create multimedia applications. Students will work on tutorial exercises and will create, manipulate and present their own MM applications. Emphasis will be placed on evaluating applications and their elements. Prerequisite: CMSY-110 or consent of instructor based upon three months experience with Windows software. (2 hours lecture, 2 hours lab)

### CMSY-276 Multimedia Hardware 3 Credits

Upon completion of this course, the student will have a basic technical understanding of the function and operation of the multimedia devices used with or connected to personal computer systems. The student will understand how to install, test, and use multimedia devices such as mass storage devices, CD-ROMs, soundcards, scanners, digital cameras, video capture cards, and touch screens. The course will focus on broad concepts and diagnostic tools which allow the student to rapidly configure or rectify faults in multimedia PC systems. Prerequisite: CMSY-132 and hardware familiarity is recommended. (2 hours lecture, 3 hours lab)

### CMSY-277 Microsoft Office User Expert 3 Credits

This course provides students with advanced skills in Microsoft Office products. Students will master the skills tested at the Expert level on the Mircrosoft Office User Specialist exams for Word and Excel. Sharing data between applications (including PowerPoint and Ac-

cess) will be covered. Prerequisite: CMSY-177. (2 hours lecture, 2 hours lab)

#### CMSY-278 Advanced Database Application Development

#### 3 credits

This course is designed to give students advanced database development skills as well as an understanding of client/server database development issues. Creating client/server database objects such as views, constraints, triggers and stored procedures will be emphasized and implementing database information on the internet will also be covered. Project management for database application design and development will be emphasized. Students will learn to create and use database objects according to project requirements. The student will use Microsoft Access 2000, MSDE and microsoft SQL Server. Prerequisite: CMSY-903 or CMSY-178. (3 hours lecture, 1 hour lab)

### CMSY-281 Advanced C++ Programming 4 Credits

This course provides data structure implementation in C++ including dynamic arrays, linked lists, binary trees and various search algorithms. Advanced object-oriented programming concepts and development will also be covered, including composite classes and inheritance, operator and function overloading, encapsulation and polymorphism. Prerequisite: CMSY-181. (3 hours lecture, 2 hours lab)

#### **COOPERATIVE EDUCATION**

### COOP-150 Job Search: Skills and Techniques 1 Credit

This course is designed for all students who want to develop skills for seeking and securing employment. Through this course students will enhance their skills in job hunting by concentrating efforts into such areas as resume writing, interviewing and job search techniques. (2 hours weekly, 7 weeks)

### COOP-160 Portfolio Development 3 Credits

This course is designed for students who wish to receive credit for learning gained from life experience. In this

course students will document evidence of prior learning in a "portfolio" which will enable faculty to evaluate and award credit for specific HCC courses. The student will learn to collect, organize, document and verify evidence of prior learning as well as assess skills and abilities and clarify career goals. Prerequisite: ENGL-101 or ENGL-111 and consent of the instructor. Call Peggy Walton at 410-772-4068 for further information.

#### COOP-190 Internship I 1-2 Credits

Upon completion of this course, students will have enhanced skills by linking concepts and theories with application and understanding through experiential opportunities in a workplace setting. Registration for this course must be coordinated through Academic Support and Career Services. L140.

#### COOP-191 Internship II 1-2 Credits

Upon completion of this course, students will have enhanced skills by linking concepts and theories with application and understanding through experiential opportunities in a workplace setting. Registration for this course must be coordinated through Academic Support and Career Services, L140. Prerequisite: COOP-190.

### COOP-201 Cooperative Education Work Experience I

#### 3-4 Credits

Cooperative Education is supervised work experience directly related to a student's major subject area and/ or career goals and interests. Its basic purposes are to integrate classroom theory and work applications and to assist the student in making the transition from school to work. New or current positions may qualify for co-op credits. Students may work between 10 and 40 hours a week for a 10- or 15-week period, attend seven 80-minute seminars during the semester, achieve specific learning objectives, and submit reports to a faculty co-op advisor. Prerequisite: minimum of 12 credits completed at HCC with a 2.0 or better grade point average and demonstration of pre-employment skills. Student placement and consent to enroll in course are to be coordinated through the Co-op Office before registering. Call the Academic Support and Career Services Office 410-772-4840 for further information and consent to enroll.

### **COOP-202** Cooperative Education Work Experience II

#### 3-4 Credits

See course description above.

#### **CRIMINAL JUSTICE**

### CRIM-101 Introduction to Criminal Justice 3 credits

A survey of the history, philosophy and social development of police, courts and corrections in a democratic society. Identification and operations of local, state and federal agencies will be covered with criminal justice career orientation. (3 hours weekly)

### CRIM-102 Criminology 3 credits

This course introduces the student to the basic theories, fundamental facts, and problems associated with the science of criminology, while providing a systematic basis for the study of criminals, and criminal behavior as it relates to the criminal justice system in America. (3 hours weekly)

### CRIM-103 Juvenile Delinquency 3 credits

This course studies youthful crime; its volume, causes, and trends. The prediction, prevention, treatment and control of juvenile delinquency by social control agencies is examined relative to social policies needed to reduce its incidence. The organization and procedures of the juvenile justice system will be explored. (3 hours weekly)

### CRIM-105 Introduction to Corrections 3 credits

This course introduces the student to the field of corrections, as it relates to the justice system. The course will focus on the history of corrections and the forms of criminal sanctions at the federal, state and local levels. Prerequisite: CRIM-101. (3 hours weekly)

### CRIM-190-191 Criminal Justice Internships I and II

#### 3-4 Credits

See COOP-201-202 Cooperative Education Work Experience I and II. The internship is a practicum with mea-

surable learning objectives designed to broaden the educational experience. Students are assigned to appropriate governmental and private criminal justice agencies.

### CRIM-200 Law Enforcement and the Community

#### 3 credits

A study of the relationship between police and the community with recommendations for ways of working together to reduce crime. Emphasis is placed on policing in a culturally diverse society. Prerequisite: CRIM-101. (3 hours weekly)

### CRIM-201 Introduction to Criminal Law 3 credits

The study of substantive criminal law as applied to the local, state and federal systems. Crimes as prosecuted in a court of law are examined. Court decisions are used to address various sources and types of criminal laws. Prerequisite: CRIM-101. (3 hours weekly)

### CRIM-210 Criminal Evidence and Procedure 3 Credits

Examines the principles and techniques of criminal procedure employed during trials to determine the admissibility of physical and testimonial evidence. An analysis of laws and court decisions relating to the admissibility is emphasized. Prerequisite: CRIM-101. (3 hours weekly)

#### **DANCE**

#### DANC-181 Ballet I 2 Credits

An introduction to the fundamentals of classical ballet with emphasis on placement and alignment of body, and other preparatory work necessary for the establishment of a basic technical foundation. Introduction to ballet history and terminology—includes barre work. (3 hours weekly)

#### DANC-182 Ballet II 2 Credits

A continued study of the technical fundamentals of classical ballet. Prerequisite: DANC-181. (3 hours weekly)

#### DANC-186 Modern Dance I 2 Credits

An introduction to the basic principles of modern dance. Course work includes floor-work and body alignment as well as discussion of dance technique and major modern theories. (3 hours weekly)

#### DANC-187 Modern Dance II 2 Credits

An expanded study of basic modern dance technique involving concepts of spatial awareness and other movement fundamentals. Modern dance will also be analyzed from a theoretical and historical perspective. Prerequisite: DANC-186. (3 hours weekly)

#### DANC-188 African Dance 2 Credits

Dance movements from primitive African and Caribbean as well as contemporary jazz dance with the physiological benefit of aerobic exercise. Students will become aware of the ancient origin of all movements performed. Course work will include stretching to improve flexibility, body alignment to foster good posture, sustained movement to increase cardiovascular fitness. Much of class time will be spent in developing stamina, flexibility and in learning and performing choreography. (3 hours weekly)

#### DANC-189 Jazz Dance 2 Credits

An introduction to jazz dance for the beginning student including a Broadway show dance. In addition to practicing, dance students will trace jazz history from Afro-Caribbean to Vaudeville forms to Broadway show styles. (3 hours weekly)

#### DANC-190 Dance Appreciation 3 Credits (Fine Arts/Humanities Core)

An introductory survey of dance as a performing art which will prepare the student for greater enjoyment and appreciation of various dance forms including ballet, modern, jazz, and diverse ethnic/folk dances. Through discussion, lecture, demonstrations and especially through live and filmed dance performances, students will develop an ability to evaluate and appreciate the various types of dance—as dynamic art forms. (3 hours weekly)

#### **ECONOMICS**

#### ECON-101 Principles of Economics (Macro) 3 Credits (Social and Behavioral Sciences Core)

This course introduces students to important economic issues which affect an entire economy. Students will more comfortably read and understand books, newspapers, and magazines with economic content. Topics include demand and supply theory; gross domestic product determination; inflation; unemployment; the role of the government and public choice; fiscal and monetary policy and foreign exchange rates and trade. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111. (3 hours weekly)

#### ECON-102 Principles of Economics (Micro) 3 credits (Social and Behavioral Sciences Core)

Micro economics introduces students to economic decision making at the individual firm, consumer and industry level. Topics include demand and supply theory; elasticity; cost and production functions; profit maximization analysis; government regulation and anti-trust; and international trade. It is not necessary to take ECON-101 previous to ECON-102. Prerequisite: Eligible to enroll in ENGL-101 or EG111. (3 hours weekly)

### ECON-201 Money and Banking 3 credits

Money and Banking provides an analysis of our monetary and banking systems and their relationships to the United States Economy. Topics include the origin and nature of money, the development and functions of commercial banking and other financial industries, the Federal Reserve System, and the relationship between fiscal and monetary policies in our economy. Prerequisite: ECON-101. (3 hours weekly)

### ECON-205 International Economics 3 Credits

International Economics provides the student with the foundations of the theory and practice of international trade and finance necessary for understanding the nature and consequences of linking the domestic economy and the world. Topics covered include: introduction to classical and modern international theories of trade:

analysis of the economic effects of commercial policies like tariffs and quotas; economics of custom unions; balance of payments, spot and forward foreign exchange markets and exchange rate systems; balance of payments problems and the adjustment mechanisms; flexible and fixed exchange rate systems; and international monetary systems. Prerequisite: ECON-101 (3 hours weekly)

#### **EDUCATION**

### EDUC-110 Introduction to Education 3 credits

The student will examine the basic principles and philosophical traditions of Western and American Education. The student will also evaluate the trends, issues and career opportunities and options in contemporary education. ( 3 hours weekly)

### EDUC-111 Child Growth and Development 3 credits

Through the study of the early childhood years, the student will be able to describe the language, cognitive, physical, social, and emotional development of young children, birth to 8 years. Instruction will focus on theories of child development, research methods, and developmental milestones. Knowledge learned in this course can be applied to parenting and to careers in child care, early childhood education, and nursing. This course meets the Maryland State Department of Education Child Development requirement for an initial certificate in Early Childhood Education and Elementary Education. It also meets the MSDE Human Growth and Development requirement for Generic Special Education Infant/ Primary and Generic Special Education Elementary/ Middle. (3 hours weekly)

### EDUC-112 Methods and Materials in Early Childhood Education

#### 3 credits

This course is designed to teach the methods and proper use of materials for presenting creative learning experiences to young children in the areas of art, music, movement, creative dramatics, language, outdoor, cooking, academic preliminaries, and science. This course

meets the Maryland State Department of Education Teaching Methodology requirement for an initial certificate in Early Childhood Education.

### EDUC-113 Working with Infants and Toddlers 3 credits

This course introduces the philosophy and implementation of infant and toddler caregiving in a group setting. This RIE (Magda Gerber) influenced course reviews care routines, appropriate activities, and group management techniques. The health, safety and nutritional needs of infants and toddlers are also examined. (3 hours weekly)

### EDUC-130 Introduction to Early Childhood Education

#### 3 credits

This course is designed to increase the student's understanding of various curriculum models and approaches in Early Childhood Education. Techniques for implementing and evaluating these models and approaches will be presented through lectures, classroom visits, and guest speakers. The student will explore contemporary issues and problems affecting young children such as discipline, single parent families, homelessness, child abuse and neglect, sexism, AIDS, mainstreaming, accountability, and stress in children. (3 hours weekly)

### EDUC-140 Child Health, Safety and Nutrition 3 credits

This course will examine the health, safety, and nutritional needs of children, ages 2 - 6 years, in the child care setting. Attention will be directed to the study of common childhood illnesses, chronic conditions, prevention through personal hygiene, good safety practices, and nutritious snacks and meals as they impact on the child care setting. (3 hours weekly)

### EDUC-150 Practicum in Early Childhood Development

#### 4 credits

This course is designed to teach the student how to implement and evaluate a quality child care program. Students are assigned to one child care setting where they will spend 9 hours per week assisting as a teacher or an aide. Students meet at the college every other week for 2 hours to discuss lecture topics and class-

room experience. Prerequisites: EDUC-111, EDUC-112. (1 hour lecture, 3 hours lab)

### EDUC-160 School Age Child Care 3 credits

This course introduces the philosophy of elementary education with basic child development theory focusing how children grow physically, emotionally, socially, and cognitively, ages 6-12 years. Approaches in curriculum, planning, goal setting, and selection of age-appropriate materials and methods by which education objectives are obtained are stressed. Students learn how to plan an appropriate program for school age child care. (3 hours weekly)

### EDUC-200 Introduction to Special Education 3 credits

This course is designed to provide an understanding of the needs of all types of exceptional children. Students will be able to identify symptoms and causes of major handicapping conditions and ways in which teachers can individualize instruction in response to these conditions. Federal and state regulations are also reviewed. This course meets the Maryland State Department of Education Inclusion of Special Needs Student Populations requirement for an initial certificate in Early Childhood Education, Elementary Education and Secondary Education. This course also meets the MSDE Historical, Philosophical, and Legal Foundations of Special Education requirement for an initial certificate in Generic Special Education Infant/Primary, Generic Special Education Elementary/Middle, and Generic Special Education Secondary/Adult. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111. (3 hours weekly)

#### EDUC-201 Processes and Acquisition of Reading for Early Childhood, Elementary and Special Education (Infants-Grade 8) Teachers 3 credits

Students will develop an understanding of how the brain responds to reading acquisition. They will demonstrate knowledge of language development and the reading process. They will demonstrate an understanding of the role of experiential background, prior knowledge, motivation, phonemic awareness, and personal significance to developing readers. This course meets the Maryland State Department of Education Reading re-

quirement for an initial certificate or renewal of a certificate in Early Childhood Education, Elementary Education, Special Education Generic Infant/Primary, and Special Education Generic Elementary/Middle. (3 hours weekly)

#### EDUC-202 Methods of Teaching Reading in the Secondary Content Areas, Part I for Regular and Special Education Teachers

#### 3 credits

This course outlines the essentials of reading processes necessary for secondary students to become proficient readers. Types of reading, elements of assessment, skills of the reading process, the incorporation of reading instruction into content delivery and the affective aspects of the processes of reading will be examined. The course includes field-based experiences; therefore, students must be currently in a teaching position or have access to a secondary classroom. This course meets the Maryland State Department of Education Reading requirement for an initial certificate or renewal of a certificate in Secondary Education and Generic Special Education Secondary/Adult. Teachers having already met part of the state requirement should have written authorization from MSDE that this course will satisfy the Phase II requirement. (3 hours weekly)

#### EDUC-203 Reading Instruction for Early Childhood, Elementary, and Special Education (Infants-Grade 8) Teachers

#### 3 credits

Students will demonstrate a knowledge of best practices and instructional strategies which focus on the purposes for reading. They will demonstrate an understanding of the role of concepts of print, word recognition instruction (i.e., phonics, spelling, vocabulary, writing), text structure, comprehension, and classroom organization in developing a variety of strategies to use with developing readers. They will also demonstrate a knowledge of early identification and intervention strategies for low achieving readers. This course meets the Maryland State Department of Education Reading requirement for an initial certificate in Early Childhood Education, Elementary Education, Special Education Generic Infant/Primary, and Special Education Generic Elementary/Middle. Pre-requisite: EDUC-201. (3 hours weekly)

#### EDUC-204 Assessment for Reading Instruction for Early Childhood, Elementary and Special Education (Infants-Grade 8) Teachers 3 credits

Students will demonstrate an understanding of how to use data from state, local and classroom assessments of reading to make ongoing instructional modifications in their classrooms as a strategy for prevention and intervention. They will demonstrate an understanding of how to implement a variety of reading assessments and adjust the curriculum accordingly. They will demonstrate a knowledge of when the following types of reading assessments are valuable: teacher observations, running records, learning logs, performance assessment, portfolios, projects, rubrics, and norm-referenced assessments. They will demonstrate a knowledge of how to provide meaningful input to Admission, Review, and Dismissal (ARD) assessments. In addition, they will be able to communicate assessment data about individual student reading performances to parents. This course meets the Maryland State Department of Education Reading requirement for an initial certificate in Early Childhood Education, Elementary Education, Special Education Generic Infant/Primary, and Special Education Generic Elementary/Middle. Prerequisite: EDUC-201. (3 hours weekly)

#### EDUC-205 Materials and Motivations for Reading for Early Childhood, Elementary and Special Education (Infants-Grade 8) Teachers

Students will build support for long-term motivation of developing readers within a framework of inquiry. They will experience a variety of texts to be used in their classes when reading for literary experience, reading to perform a task, and reading for information. They will apply strategies for selecting materials, for retrieving materials, and for evaluating materials. They will demonstrate an understanding of accessibility, variety of media, multicultural materials, text features, and oral and written responses to literature. They will also demonstrate a knowledge of the role of parents in supporting reading programs. This course meets the Maryland State Department of Education Reading requirement for an initial certificate in Early Childhood Education, Elementary Education, Special Education Generic Infant/ Primary, and Special Education Generic Elementary/ Middle. Prerequisite: EDUC-201. (3 hours weekly)

#### EDUC-206 Methods of Teaching Reading in the Secondary Content Areas, Part II for Regular and Special Education Teachers

#### 3 credits

Students will focus on teaching secondary students to learn from text. Participants will apply theories, strategies and practices in daily classroom use. Additional content in the areas of types of learning, skill in reading and instruction will be introduced. This course is field-based and requires access to a group of students. This course meets the Maryland State Department of Education Reading requirement for an initial certificate in Secondary Education and Generic Special Education Secondary/ Adult. Prerequisite: EDUC-202. (3 hours weekly)

# EDUC-212 Advanced Methods and Materials in Early Childhood Education

#### 3 credits

This course is designed to expand and integrate the methods and materials presented in EDUC-112 with program planning for young children. The course will emphasize collecting and preparing a variety of activities and materials using a thematic approach. The course will present a variety of issues relevant to curriculum planning in an early childhood program. Prerequisites: EDUC-111 and EDUC-112. (3 hours weekly)

# EDUC-230 Child Care Center Administration and Management

#### 3 credits

Students are instructed in meeting state requirements for physical facilities, licensing, insurance, and staffing child care programs. Other topics include record keeping, budget and bookkeeping, personnel selection, training and managing staff, food services, equipment, materials, and community involvement. Prerequisites: EDUC-111, EDUC-112 and EDUC-150. (3 hours weekly)

### EDUC-240 Successful Classroom Management 3 credits

This course is designed to teach how to effectively manage a classroom for two through five year old children. The student will be able to set up the physical environment, plan the schedule, incorporate age-appropriate program planning, and learn strategies for working with parents and other staff members in a child care setting. Specific behavior management techniques

will be explored as they relate to dealing with children in a classroom setting. Prerequisites: EDUC-111 and EDUC-112. (3 hours weekly)

### EDUC-250 Advanced Practicum in Early Childhood Development

#### 4 credits

The student will conduct learning activities for children, implement various teacher-child interaction patterns, implement transitions, gain experience in working with staff members, and participate in many routine center operations. The student will spend nine hours per week in an early childhood setting. Students meet at the college every other week for two hours to discuss lecture topics and classroom experiences. Prerequisites: EDUC-111, EDUC-112, and EDUC-150. (1 hour lecture, 3 hours lab)

### EDUC-260 Educational Psychology (formerly PSYC-201)

#### 3 credits

Educational Psychology is an advanced course which surveys current psychological research and theory to address issues of teaching and learning. Instruction will focus on developmental theories, research methods, classroom management, and instructional techniques. The course will utilize readings, films, lectures, guest speakers, and small group projects, and is well suited for anyone interested in learning more about children, schools, learning, and/or teaching. This course meets the Maryland State Department of Education Human Learning requirement for an initial certificate in Early Childhood Education, Elementary Education and Secondary Education. Prerequisite: PSYC-101. (3 hours weekly)

### EDUC-265 Educational Assessment 3 credits

This course focuses on students developing and using classroom assessments, including tests, performance assessments, rating scales, portfolios, observations and oral interactions. Basic psychometric, standard setting, grading, communicating assessment information, testing ethics, locating and evaluating measures, program evaluation and classroom research are also presented. This course meets the Maryland State Department of Education Assessment of Students requirement for an initial

certificate in Early Childhood Education, Elementary Education, and Secondary Education. This course also meets the MSDE Assessment, Diagnosis, and Prescriptive Techniques requirement for an initial certificate in Generic Special Education Infant/Primary, Generic Special Education Elementary/Middle, and Generic Special Education Secondary/Adult. (3 hours weekly)

### EDUC-266 Methods of Teaching Elementary Education

#### 3 credits

This class focuses on students preparing to become reflective teachers in a diverse society through knowledge of the subject matter, the curriculum, the learners, and teaching strategies. Opportunities will be provided for planning and practicing instruction based on a knowledge of the theory and research supporting the strategies and models used. Emphasis will be placed upon reflection on teaching and learning events in classrooms and schools to encourage problem solving in collaboration with others. This course meets the Maryland State Department of Education Teaching Methodology requirement for an initial certificate in Elementary Education. (3 hours weekly)

### **EDUC-267** Methods of Teaching Secondary Education

#### 3 credits

This course is designed to provide prospective and non-certified secondary school teachers with knowledge of theory and teaching practices, current educational goals, both nationally and locally, and trends in educational assessment and application. This knowledge will be used to plan, design and conduct effective instruction. Supplemental topics will include multiculturalism, classroom management, and the inclusion of students with special needs. This course meets the Maryland State Department of Education Teaching Methodology requirement for an initial certificate in Secondary Education. (3 hours weekly)

### EDUC-270 Teacher Education Field Placement 3 credits

This course is designed for the college student who is interested in a career as a teacher in the areas of Early Childhood, Elementary, Secondary, or Special Education. The college student will be assigned to one class-

room in Howard County Public Schools in their designated major where they will spend six (6) hours per week interacting with students. The college student will be supervised by the classroom teacher and observed in their placement by the college instructor. Seminars will be held seven times throughout the semester at the college to discuss issues relating to the field experience.

#### **ELECTRONICS**

#### ELEC-103 Introduction to Wireless and NetworkCommunications

#### 3 Credits

This course is designed to introduce the student to the principles and applications of wireless technology—cordless, cellular, telephony, Personal Communications Systems (PCS), mobile data networks, and Wireless Local Area Networks (WLAN). The principles of Local Area Networks (LAN) and Wide Area Networks (WAN) will be covered. Technical material is thoroughly integrated with specific applications and focuses on wireless standards, descriptions of systems and products, and wireless transmission techniques. (3 hours weekly)

### ELEC-105 Fundamentals of Electronics 3 Credits

This course teaches students fundamentals of DC and AC circuits, digital electronics, and interconnection technology. Lectures and laboratory exercises emphasize basic electronics test equipment use and electronics safety procedures. Students will get "hands on" training in building and testing twisted pair (10 base - T), Coaxial (Thinnet), ribbon and fiber optics cables used in computer networking. Students will practice obtaining information from manufacturer's data sheets and catalogs for various types of networking hardware. This course includes an overview of LAN systems and LAN connectivity. (2 hours lecture, 3 hours lab)

### ELEC-107 Introduction to Electronics Circuit 4 Credits

Upon completion of this course, the student will have a thorough understanding of fundamentals of electronics. The student will study passive components and their behavior in DC circuits as well as in AC circuits. The

student will learn fundamental laws that govern the electronics circuits such as Ohm's law, Kirchhoff's current/voltage laws, and Thevenin's Theorem. Analysis of electric circuits with computer techniques will be covered as part of laboratory experiments. Basic electronics safety will be stressed. The student will have hands-on experience and a good understanding of laboratory test instruments and basic troubleshooting techniques. Prerequisite: Eligible to enroll in MATH-061. (3 hours lecture, 3 hours lab)

### ELEC-114 Semiconductor Devices 3 Credits

The student will learn and apply solid state theory of diodes and bipolar transistors across the following topics: diode rectifiers and filtering, zener regulation, clippers and clampers, biasing circuits, small signal amplifiers, frequency effects, Class A amplifiers and the transistor switch. The student will be able to analyze with equivalent circuits, single-stage and multi-stage amplifiers and understand the characteristics of diodes and transistors. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111; Pre- or Co-requisite: ELEC-107 or ELEC-112. (2 hours lecture, 3 hours lab)

### ELEC-140 Network Cabling Systems 3 Credits

This course is designed to train individuals in the fundamentals of installing, connecting and certifying network cabling systems. Students will learn to apply the basics of network cable and connector selection, installation and termination. Fundamental testing, certification, and documentation practices will be covered. Labs include hands-on experience with terminating and testing coaxial, unshielded twisted pair (UTP), and fiber optic cables in accordance with current industry and EIA/TIA standards. (2 hours lecture, 3 hours lab)

### ELEC-211 Analog Circuits 4 Credits

The student will become capable of assembling and analyzing analog circuits. Topics include: FET characteristics and circuits, differential amplifiers, integrated circuit fabrication, negative and positive feedback, operational amplifier characteristics, analysis of common operational amplifier circuits, Class B power amplifiers; power supply characteristics, and circuits using discrete

and integrated circuit technology. Prerequisite: ELEC-114. (3 hours lecture, 3 hours lab)

### ELEC-213 Digital Circuits 4 Credits

Principles of solid state devices will be utilized to study logic circuitry. The student will analyze, design, build and troubleshoot logic gates, pulse and switching circuits, arithmetic circuits, counters, registers, input/output, clock and control circuits, and memory units. Digital TTL integrated circuits and other logic families will be compared. The principles learned will be applied to various digital instruments and digital computer circuitry. Prerequisite: ELEC-107 or ELEC-112. (3 hours lecture, 3 hours lab)

### ELEC-220 Electro-Mechanical Devices 3 Credits

Upon completion of this course, the student will be able to analyze electro-mechanical systems from a variety of applications in industrial and hospital environments. Students will learn the construction, characteristics and applications of relays, motors and other electro-mechanical devices along with associated circuits to control them. Automatic controllers (servomechanisms, PLC's, etc.) will be studied. The actual devices learned in theory will be utilized during the laboratory sessions with emphasis on proper operation and measurement techniques will appropriate test instruments. Prerequisite: ELEC-211 and ELEC-213. (2 hours lecture, 3 hours lab)

### ELEC-237 Wireless Communication Circuits 3 Credits

Upon completion of this course, the student will understand the fundamentals of electromagnetic wave propagation in the real world environment and how information is transmitted and received through that medium. An overview of many types of wireless communication systems will be presented. The numerous problems in selecting the method of transmission and reception will be considered, and the impact of noise, power, and impedance on system performance will be addressed. Specific circuits unique to this branch of electronics will be examined. Pre- or co-requisite: ELEC-211 and ELEC-213. (2 hours lecture, 3 hours lab)

#### ELEC-238 Wireless Communication Systems 3 Credits

Upon completion of this course, the student will have an understanding of the principles of the major wireless communication systems in use throughout the world today. The course will focus on understanding and troubleshooting equipment common to these systems and will investigate concepts unique to wireless communication systems such as cellular, microwave, and satellites. A section on electromagnetic compatibility, RF interference, and spectrum analysis will be particularly valuable in understanding how systems interact. Prerequisite: ELEC-237. (2 hours lecture, 3 hours lab)

### ELEC-260 Internetworking with Multi-Protocol Systems

#### 3 Credits

This course emphasizes the physical, datalink, and network layers of Local Area Networks (LANs) and Wide Area Networks (WANs). Topics include: network components employed in bus, ring, and star topologies; coaxial, twisted pair, and fiber optic transmission media; transmission standards and multiple protocol interfacing. Labs will include hands-on configuration of repeaters, bridges, routers, and gateways in client-server and peer-to-peer environments. SNMP network management tools will be used to configure, optimize, and troubleshoot stand-alone and internetworked systems. Prerequisite: ELEC-105 and CMSY-106 or ELEC-140 and CMSY-106. (2 hours lecture, and 3 hours lab)

### ELEC-261 Introduction to Router Configuration 3 Credits

This course covers basic internetworking principles and configuration of routers for multiprotocol networks. Students will have hands-on experience in loading internet operating system, configuration and image files of routers. Students will also have hands-on experience in basic Cisco commands and configure Cisco routers for internetworking that uses LAN and WAN interfaces. This course will help you prepare for exams associated with CCIE (Cisco Certified Internetwork Expert) certification. Prerequisite: ELEC-260. (2 hours lecture, 3 hours lab)

### ELEC-262 Advanced Router Configuration 3 Credits

This course covers Wide Area Networking concepts, components, services, connectivity options and protocols. Students will have hands-on experience in connecting, configuring, managing complex internetwork using routers. Students will become familiar with Cisco diagnostic tools and commands to manage the internetwork efficiently. This course will help to prepare for exams associated with CCIE (Cisco Certified Internetwork Expert) certification. Prerequisite: ELEC-261. (2 hours lecture, 3 hours lab)

# EMERGENCY MEDICAL SERVICES

#### EMSP-100 Emergency Medical Technician-Basic

#### 5 Credits

Students will be able to properly perform the various psychomotor (field) skills utilized by emergency medical technician-basic (EMT-B) level prehospital care providers in the care of sick or injured persons. This course prepares the students for the Maryland and National Registry EMT-B certification practical and written examination and follows the guidelines established for EMT-B training by the DOT/NHTSA/HRSA national standard curriculum. In addition to EMT-B certification. course completion for AHA CPR Health Care Provider is an expected outcome of this course. Participation in the ride along component of this course requires proof of immunizations. Visit the EMS Program website at http://www.howardcc.edu/health/hshp.htm for a copy of the Health Data Form or contact the EMS Program at 410-772-4948. Per Maryland law you must be at least 18 years of age (or 16-18 with parental permission) to take EMT-B training. Prerequisite: ENGL-093 or appropriate score on English placement test. (3 hours theory, 6 hours lab)

#### EMSP-160 Prevention and Management of Emergency Situations

#### 6 Credits

Students will apply the basic concepts of human development, pathophysiology and pharmacology to assess-

ment and management of emergency patients. They must be able to properly administer medications, and communication effectively with patients and other members of the health care team. In addition, the paramedic student must be able to safely manage the scene of an emergency. Course completion of Basic Cardiac Life Support (BLS) is a required outcome of this course. Prerequisites: Current EMT-B Certification with appropriate experience (1 year as an EMT-B *or* documentation of proof of 150 ambulance calls), MATH-060 or appropriate score on math placement test, ENGL-096 or appropriate score on English placement test, BIOL-203, BIOL-204, HEAL-110 and MATH-105. (5 hours theory, 3 hours lab)

### EMSP-200 Airway, Patient Assessment & Trauma Management 9 Credits

Students will be able to establish and/or maintain a patent airway, oxygenate and ventilate a patient utilizing basic and advanced level skills, take a proper history and perform a comprehensive physical exam on any patient, and communicate the findings to others. In addition, the student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the trauma patient. Certification in Basic Trauma Life Support (BTLS) is a required outcome of this course. Prerequisite: EMSP-160. (7 hours theory, 6 hours lab)

# EMSP-204 Emergency Treatment for the Medical Patient

#### 9 Credits

Students will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for the medical patient. Course completion in Advanced Cardiac Life Support (ACLS) is a required outcome of this course. Prerequisite: EMSP-200. (6 hours theory, 9 hours lab)

# EMSP-208 Behavioral and Environmental Interventions

#### 5 Credits

Students will be able to integrate pathophysiological principles and assessment findings to formulate a field

impression and implement the treatment plan for patients exposed to toxic substances and induced or exacerbated illness related to communicable disease or environmentally hazardous conditions. Intervention for patients experiencing behavioral emergencies will be considered for promoting safety and therapeutic effect. Prerequisite: EMSP-204. (3 hours theory, 6 hours lab)

### EMSP-252 Special Considerations for Prehospital Care 5 Credits

Students will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for neonatal, pediatric, obstetric, gynecology and geriatric patients. In addition, patients who are physically or mentally challenged, chronically ill patients and patients with common complaints will be examined for their unique special needs. Certification in Pediatric Basic Trauma Life Support (PBTLS) and course completion in Pediatric Advanced Life Support (PALS) are required outcomes of this course. Prerequisite: EMSP-204. (3 hours theory, 6 hours lab)

# EMSP-262 Paramedic Internship and Evaluation

#### 5 Credits

Students will be able to participate in a variety of prehospital and hospital based clinical settings to develop the necessary competencies to properly perform the various psychomotor (field) skills utilized by paramedics. Students will perform patient care in both simulated scenarios and with real patients under direct observation of paramedic preceptors. This course will evaluate the student's psychomotor skills as well as determine if they possess the appropriate knowledge and attitudes required of entry level EMT-Paramedics. The final weeks of this course will be utilized to prepare students for the National Registry written and practical EMT-Paramedic examinations. Prerequisite: Successful completion of all previous EMSP courses. (1 hour theory, 12 hours lab)

### **ENGINEERING**

# ENES-100 Introduction to Engineering Design 3 Credits

In this course, students are introduced to the engineering design process by working on a product design project. Working in teams, students will design and build a product that satisfies specified functional, or operational, requirements. The design will involve a variety of topics from engineering, technology and the sciences. Topics, with which students must become familiar in order to complete their project, will be drawn from various disciplines, such as mechanics, fluidics, energy concepts, thermodynamics, electrical circuits, and chemistry. In addition, students will use CAD software and other computer applications, such as word processors, spreadsheets and computer languages. Prerequisite: Eligible to enroll in MATH-131 or above. (2 hours lecture, 2 hours lab)

### ENES-120 Statics 3 Credits

Students will study the equilibrium of stationary bodies under the influence of various kinds of forces. Topics studied include: forces, moments, couples, equilibrium, frames and machines, centroids, moment of inertia, and friction. Vector and scalar methods are used to solve problems. Prerequisite: PHYS-110; Pre- or Co-requisite: MATH-150. (2 hours lecture, 2 hours lab)

# ENES-130 Dynamics 3 Credits

This course will enable the student to acquire knowledge dealing with systems of heavy particles and rigid bodies in motion. In order to study such systems, it is necessary to learn force, acceleration, work, energy and impulse-momentum relationships. In addition, material will be discussed which covers motion of one body relative to another in a plane and in space. Prerequisite: ENES-120 and MATH-150. (2 hours lecture, 2 hours lab)

# ENES-140 Mechanics of Materials 3 Credits

The student will acquire a knowledge of the distortion of engineering materials in relation to changes in stress or temperature. The geometry of internal strain and external displacement will be studied. Applications will be presented and discussed which cover beams, columns, shafts, tanks and other structural machine and vehicle members. Prerequisite: ENES-120 and MATH-150 or equivalent. (3 hours weekly)

# ENES-160 Systems and Circuits 3 Credits

Designed mainly for electrical engineering students, this course will enable the student to acquire knowledge of Kirchoff's Law, linear, non-linear, time variant, node and mesh analysis. In order to study such systems, it is necessary to learn the solution of circuit differential equations, zero input, zero state and complete response. Prerequisite: MATH-150 and PHYS-111. (4 hours weekly)

# ENES-181 Thermodynamics 3 Credits

This course is designed for the student who plans to transfer to an engineering program. Topics covered include the following: introduction to thermodynamics, thermodynamic properties of matter, laws of thermodynamics, cycles, reactions, mixtures, automobile engines and turbines. Prerequisite: MATH-150 and PHYS-112. (2 hours lecture, 2 hours lab)

### **ENGLISH**

#### ENGL-083 Intermediate Reading for Nonnative Speakers of English 4 Credits

In this course students will improve their reading skills. Reading is approached as an integral part of an ESL student's overall English language learning, not as an isolated skill. As a result, while the major areas of study include vocabulary, idioms, and comprehension skills, speaking and writing about assigned readings are also important activities. Prerequisite: Appropriate score on English placement tests. (5 hours weekly in class and lab)

# ENGL-084 Intermediate Writing and Grammar for Non-native Speakers of English

#### 4 Credits

This course will allow students to acquire the English language skills needed to produce multi-paragraph com-

positions at an intermediate proficiency level. Contemporary reading selections and discussion activities will serve to prepare students to write narrative, descriptive and expository compositions. Grammatical skills will be developed through formal instruction, group editing and computer-assisted instruction. Prerequisite: Appropriate score on English placement tests. (5 hours weekly in class and lab)

# **ENGL-085** Academic Oral Communication for Non-native Speakers of English

#### 3 Credits

In ENGL-085, students will develop the listening and speaking skills needed to succeed at an American college. Class work will consist of pronunciation practice, listening activities, small group and class discussions of selected readings and lectures, oral presentations and simulations of aspects of academic life. Students who place into both ENGL-086 and ENGL-087 are required to take ENGL-085. Students can be exempted from this requirement by passing an oral exam. (3 hours weekly)

# **ENGL-086** Advanced Reading for Non-native Speakers of English

#### 4 Credits

ESL students will continue to strengthen their reading skills in ENGL-086 with emphasis on academic material. In this class, reading is also approached as an integral component of the larger communicative system that is the English language. In addition to reading comprehension and vocabulary skill building, students will improve their ability to communicate the information and concepts contained in assigned materials orally and in writing. Prerequisite: Appropriate score on English placement tests or completion of ENGL-083; Corequisite: ENGL-106 (5 hours weekly in class and lab)

# ENGL-087 Advanced Writing and Grammar for Non-native Speakers of English

#### 4 Credits

In ENGL-087 students will acquire the English language skills needed to write multi-paragraph compositions at a level of correctness and fluency appropriate for an advanced learner of English who will soon enroll in a freshman composition class. Readings and discussions will prepare students to write narrative, descriptive, expository and argumentative compositions. Relevant gram-

matical skills will be developed through formal instruction, group editing and computer-assisted instruction. Prerequisite: Appropriate score on English placement tests or completion of ENGL-084. (5 hours weekly in class and lab)

### ENGL-093 Directed Studies in Reading 3 Credits

Directed Studies in Reading is a three-credit developmental course designed to strengthen students' reading skills. In this course, the student in need of intensive reading instruction will complete prescribed activities to develop vocabulary and improve reading comprehension. Credits awarded for the completion of ENGL-093 do not fulfill degree requirements in any degree or certificate program. ENGL-093 meets four hours weekly, 2 hours of classroom instruction and 2 hours in a networked computerized environment. Prerequisite: Appropriate score on reading placement tests. (4 hours weekly)

### ENGL-094 Directed Studies in Writing 3 Credits

Directed Studies in Writing is a three-credit developmental course designed to strengthen students' writing skills. Beginning with sentences and progressing to paragraphs, students learn to construct clearly written, logically organized, grammatically correct papers. Credits awarded for the completion of ENGL-094 do not fulfill degree requirements in any degree or certificate program. ENGL-094 meets four hours weekly in a networked, computerized environment. Prerequisite: Appropriate score on the writing placement test. (4 hours weekly)

# ENGL-096/097 Fundamentals of Reading and Writing Combined

#### 6 Credits

ENGL-096/097 COMBINED integrates the reading and composition curricula of ENGL-096 and ENGL-097 into a single course. Working with one instructor, students read about interesting and important topics and respond to them through written assignments. Writing multi-paragraph essays, students learn to write clearly and convincingly using logical organization and appropriate grammar usage. In reading, students develop proficiency in comprehending and interpreting a variety of college level reading materials. The emphasis is aca-

demic reading as a holistic, dynamic, interactive process. Students develop an understanding of this process by practicing and mastering various reading strategies. ENGL-096/097 COMBINED meets eight hours per week with 4 hours of classroom instruction and 4 hours of individualized lab work. Prerequisite: Appropriate score on Engish placement tests. Co-requisite: ENGL-106. (8 hours weekly)

### ENGL-096 Fundamentals of Reading 3 Credits

In ENGL-096, students will develop proficiency in comprehending and interpreting a variety of college level reading materials. The course emphasis is academic reading as a holistic, dynamic, interactive process. Students will develop an understanding of this process by practicing and mastering various reading strategies. The course meets four hours weekly (two hours of class and two hours of reading lab). Prerequisite: Appropriate score on English placement tests. Co-requisite: ENGL-106. (4 hours weekly)

# ENGL-097 Fundamentals of Writing 3 Credits

In ENGL-097, students will acquire the skills needed to write and revise a series of multi-paragraph essays: students will also learn to write clearly and convincingly using logical organization and appropriate styles of standard written English. The varied writing assignments will be supplemented by topical readings, oral and electronic discussions, peer review and grammar instruction as needed. This course meets in a networked, computerized environment. Prerequisite: Appropriate score on English placement tests or ENGL-094. (4 hours weekly)

### ENGL-101 Introduction to Composition I 3 Credits

ENGL-101 is the first of a two-semester required sequence of college-level expository writing courses. (ENGL-102 is the second course in the required sequence.) ENGL-101 focuses on informative prose and builds toward the art of argument and persuasion. Students develop an understanding of themselves as writers. They participate in public discourse about writing; examine the relationship among writer, audience, and purpose; and practice writing prose through a recursive process. Students completing this course should be able to write

essays (of at least 500 words) demonstrating the conventions of standard written English and manuscript presentation. Prerequisite: Eligibility to enroll in ENGL-101 is based on English placement test scores or the successful completion of required developmental English course work. (3 hours weekly)

### ENGL-102 Introduction to Composition II 3 Credits

ENGL-102 is the second of a two-semester required sequence of college-level expository writing courses. (ENGL-101 is the first course in the required sequence.) ENGL-102 focuses on formal argumentative and persuasive prose. Students advance their understanding of themselves as writers, including understanding that they participate with others in responsible public discourse and have moral and ethical responsibilities in that discourse. Approaching writing as a recursive process, this course emphasizes scholarly inquiry and research and includes literary analysis. Students completing this course should be able to write an extended piece of expository and persuasive prose (of at least 2,000 words) demonstrating effective communication and the conventions of standard written English and manuscript presentation. (A variety of thematic orientations will be available in different sections of the course.) Prerequisite: Eligibility to enroll in ENGL-102 is based on successful completion of ENGL-101 or on English placement test scores. (3 hours weekly)

### ENGL-106 Successful Learning Strategies 2 credits

This course is designed to enhance the learning potential and success of college students. Students will demonstrate proficiency with a number of study techniques. The topics to be covered include: time management, notetaking, listening, concentration, memory, and test taking as well as library skills and Howard Community College services and facilities. (2 hours)

### ENGL-115 Creative Writing 3 Credits

In this course students will write and discuss their writing in one or more of the following genres: poetry, short story, and drama. Students are encouraged to draw on their own backgrounds and experiences in shaping their poetry and fiction. Prerequisite: ENGL-101 or ENGL-111. (3 hours weekly)

# ENGL-120 Introduction to Literature 3 Credits (Literature, Humanities Core)

The purpose of this course is to introduce students to the conventions and characteristics of three literary genres: the short story, poetry, and drama. Students will gain an understanding of literary concepts so that they will be able to interpret, analyze and critically evaluate selections from these genres. Prerequisite: ENGL-101 or ENGL-111. (3 hours weekly)

#### ENGL-180 Vocabulary Development 1 Credit

In this course, students will increase reading, writing, listening and speaking vocabularies. Students will be given resources to add a minimum of 300 words to their adult vocabularies. Students will also develop, through the study of context clues, the dictionary, and the thesaurus, the necessary skills to increase their vocabularies throughout their lives. This course is recommended for students who have an interest in increasing their vocabularies. Students who are required to take ENGL-096 should not register for this course while taking ENGL-096. (1 hour class, 1 hour lab)

### ENGL-181 Speed Reading 1 Credit

In this course, the student will develop a flexible reading rate which is essential to success in college and important for both personal and professional reading throughout life. Students will learn, through independent and classroom activities, to choose an appropriate reading strategy and rate for various types of reading. Through computer-assisted practice in a lab setting, students will increase their reading speed while maintaining good comprehension. The class will meet two hours a week in the Reading Lab. A minimal comprehension and vocabulary level are necessary to handle the materials in this program. This course is recommended for students who feel a need to increase their reading rate. Students who are required to take, or are taking, ENGL-096 should not register for this course. (2) hours weekly)

#### ENGL-200 Children's Literature 3 Credits

This study of children's books will enable the student to describe the historical background of the development of children's literature. The student will also be

presented with criteria for making critical assessments of the text and illustrations in children's books. In addition, the student will be asked to write evaluations of classic and contemporary children's books. The idea is to familiarize oneself with what is available for different kinds of children at different ages and to judge the quality of books. The scope of the course covers beginning books to young adult books. This is a writing intensive course with time also needed for selection and reading of the books. Prerequisite: ENGL-101 or ENGL-111. (3 hours weekly)

### ENGL-201 American Literature I 3 Credits (Literature/Humanities Core)

This course is a study of the literature of the United States of America from the time of the European immigrations beginning in the 16th century through the 19th century post-Civil War era. Representative literary works from diverse ethnic, racial, and social groups are studied in their historical, social, political, and economic context for what they both reflect and reveal about the evolving American experience. Representative works include fiction and nonfiction by Native Americans and by European settlers, the documents of the American Revolution, slave narratives and fictional works by African-Americans, the 18th century works of the first American novelists, the works of the American Transcendentalists, and other significant authors of the late 19th century. Prerequisite: ENGL-101 or ENGL-111. (3 hours weekly)

# ENGL-202 American Literature II 3 Credits (Literature/Humanities Core)

The second semester of the American Literature sequence is a general survey of the literature of the United States of America from the mid-19th century to recent times. Representative literary works from diverse ethnic, racial, and social groups are studied in their historical, social, political, and economic context for what they both reflect and reveal about the evolving American experience and character. Representative works include the major Realist and Naturalist literature in the 19th century, the literature of the Native-American experience in the 19th and 20th centuries, immigrant literary expressions, classic works from the post- WWI and WWII eras, and feminist expressions, among others. Prerequisite: ENGL-101 or ENGL-111. (3 hours weekly)

#### ENGL-203 English Literature I 3 Credits (Literature/Humanities Core)

English Literature I is a study of the best writers from the Anglo-Saxon Age to the beginning of the Romantic Age. Students have the opportunity to read great works and to better understand Western literary tradition and influence. Prerequisite: ENGL-101 or ENGL-111. (3 hours weekly)

# ENGL-204 English Literature II 3 Credits (Literature/Humanities Core)

English Literature II is a study of the best writers from the Romantic Age to modern times. The works of these writers and their contributions to today's literary landscape will be studied. Prerequisite: ENGL-101 or ENGL-111. (3 hours weekly)

## ENGL-205 The Short Story 3 Credits

This basic introduction to the short story as a literary form focuses on critically evaluating representative short stories by authors from around the world, with special emphasis on American and European writers of the nineteenth and twentieth centuries. Representative writers include writers from diverse cultural and ethnic heritages. Prerequisite: ENGL-101 or ENGL-111. (3 hours weekly)

# ENGL-206 African-American Literature 3 Credits (Humanities Core)

This course is an introduction to oral and written literature of African-American writers from the earliest times through the Harlem Renaissance to present times. The class sessions will consist of lecture, discussion, and small group activities. Prerequisite: ENGL-101 or ENGL-111. (3 hours weekly)

# ENGL-207 Ethics in Literature 3 Credits (Humanities Core)

This literature course focuses on the study of poems, short stories, drama, and novels with the intention of probing both their literary merit and the questions in ethics embedded within them. In their discussion, students will become comfortable with literary terminology and basic principles of ethics and use both to understand and further appreciate the works. The emphasis here will be on close and perceptive reading, thoughtful

discussion, and reflective writing. Prerequisite: ENGL-101 or ENGL-111.

### ENGL-208 Twentieth Century Poetry 3 Credits

Students will read the works of twentieth century American poets. The course will emphasize the richness and diversity of America's finest poets from Wallace Stevens to Rita Dove. Prerequisite: ENGL-101 or ENGL-111. (3 hours weekly)

#### ENGL-209 Modern Drama 3 Credits (Humanities Core)

This course is a study of major modern European and American drama. After completing the course, the student will be able to discuss and critically appraise modern and contemporary plays; identify the basic elements which distinguish modern drama from earlier periods of drama; evaluate live performances of modern and/or contemporary plays; and know what the playwrights have said about the nature of drama. Major philosophical and scientific achievements and their impact on the drama will also be discussed. Prerequisite: ENGL-101 or ENGL-111. (3 hours weekly)

#### ENGL-211 Science through Science Fiction 3 Credits (Interdisciplinary and Emerging Issues Core)

This course focuses on the literature of scientific discovery, exploring the wonders and the dangers of these discoveries. Students will view two class films, read three to five short stories and study several novels. Students will illustrate their comprehension of the scientific background employed in the literature as well as the literary concepts themselves through class discussion, essay exams, and literary projects. This course is sometimes offered as an honors course. Prerequisite: ENGL-101 or ENGL-111. (3 hours weekly)

# ENGL-212 By and About Women 3 Credits (Humanities Core)

This course provides a historical sampling of literature written by and about females. Through group discussion, students will critically evaluate a series of six novels for literary form and technique. Class discussion will also analyze the validity of the female experience as portrayed in the literature. Students are expected to gain insight into not only the challenges but also the

power of women in literature and in life. Prerequisite: ENGL-101 or ENGL-111. (3 hours weekly) NOTE: Also listed as WMST-212.

# ENGL-215 Advanced Creative Writing 3 Credits

The course is designed for those students who have mastered the fundamental elements of creative writing. Students will write in at least one of the following literary genres: poertry, short story, and drama. Students are encouraged to draw on their own backgrounds and experiences in shaping their writing. This course differs from ENGL-115 in terms of proficiency expected; that is, students of Advanced Creative Writing are expected to achieve a higher level of proficiency in their writing and/or be further along in their work. Prerequisite: ENGL-115. (3 hours weekly)

#### ENGL-220 History and Literature of Victorianand Edwardian Britain 3 Credits

The student will be able to discuss and evaluate the historical and cultural epochs of nineteenth and early twentieth century Britain as expressed through its literature. The student will accomplish these objectives through their studies of the major trends and dominating influences of the romantic movement, the social upheaval of the industrial revolution, the Victorian age of affluence, the era of imperialism, the Edwardian age, and the trauma of the First World War epoch. This cross disciplinary course is a team-taught class. Prerequisite: ENGL-101 or ENGL-111. (3 hours weekly) NOTE: Also listed as HY220

# ENGL-225 Introduction to World Literature 3 Credits (Literature/Humanities Core)

Introduction to World Literature examines important works of world literature from antiquity to modern times. The course offers students the opportunity to study major literary works in the context of how these works reflect the cultural values of their times and places and how these works have influenced the evolution of western literature in general. Students also will learn some the basic language and structural devices of literature. The course will focus on a variety of literary genres. In addition to the regular section, there also will be a section of this course that is only available to Rouse

Scholars. Prerequisite: ENGL-101 or ENGL-111. (3 hours weekly)

#### **FILM**

# FILM-171 Introduction to the American Cinema 3 Credits (Fine Arts/Humanities Core)

As a result of taking this course, the student should be able to demonstrate knowledge of aesthetic principles as they apply to the film as an art medium. The student will view a wide variety of selected films including films directed by women and directors of color. Films will be discussed in class. The student will show a prescribed level of mastery of technical terms and concepts on examination. (3 hours weekly)

# FILM-172 Introduction to Foreign Cinema 3 Credits (Fine Arts/Humanities Core)

This course will focus on the thematic and technical concerns of great European and Asian directors from the Soviet Eisenstein's ground-breaking ideas about editing in the 1920s to Rainer Werner Fassbinder's founding of the New German Cinema in the 1970s. Films from Japan, Italy, France, Sweden, Brazil and India will be featured. (3 hours weekly)

### **FINE ARTS**

# FINE-101 Humanities Through the Arts 3 Credits (Fine Arts/Humanities Core)

In this course, the humanities are approached through an interdisciplinary study of nine major arts: film, theatre, music, dance, painting, sculpture, photography, architecture, and art in literature. Each of these arts is considered from the perspectives of the meaning and form expressed as well as criticism or critical evaluation. As a study of the creative process a broad range of methods in the various arts will be explored through diverse presentations by guest lecturers, professionals in the arts. The challenge to the student in this course is to develop perceptual awareness and aesthetic sensitivity as well as a foundation for a life-long relationship with the arts regardless of his/her major field of study. (3 hours weekly)

### FINE-102 Arts, Cultures and Ideas 3 Credits (Fine Arts/Humanities Core)

Arts, Cultures and Ideas is an interdisciplinary, team taught course whose purpose is to introduce to the student how the humanities and their arts address ways of thinking about what is human-about our diverse histories and cultures, imaginations, values, words, and dreams. The approach of the course is to root cultural achievements in their historical settings, showing how the political, social, and economic events of each period influence their creation. The course will focus on at least three of the following areas of the humanities appropriate to the period of history and the specific culture being studied: architecture, criticism, dance, ethics, film, literature, music, painting, philosophy, photography, religion, sculpture, and theatre. Historical periods that will be a part of this course as it changes focus and individual cultures to be studied within these periods will be determined each semester. Options for this course are Special Issues and Honors Options. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111. (3 hours weekly)

# FINE-193 Introduction to Women's Studies: Women, Art, and Culture

#### 3 credits (Fine Arts/Humanities Core)

An introduction to the ideas and issues central to Women's Studies, feminism, gender and diversity with emphasis on women's art and culture. The course will examine how women have been represented and how gender has been constructed in the dominant culture as well as the role of the arts and of women themselves in developing an alternative women's culture. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111. (3 hours weekly) NOTE: Also listed as WMST-193.

# FINE-200H Twentieth Century Arts, Cultures and Ideas - Rouse

#### 3 Credits (Fine Arts/Humanities Core)

This Rouse Scholars honors course is an interdisciplinary, team-taught course the purpose of which is to introduce the student to the ways of thinking about what is human about our diverse histories and cultures, imaginations, values, words, and dreams. Specifically, this course will focus on how the art, music, and literature of twentieth century expressionism through postmodernism reflect the diverse cultures and human

values of this unique period in history. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111. (3 hours weekly)

### FINE-222 Survey of Art and Music/Field Trips 3 Credits

This course is a general survey highlighting both the history of art and the history of music from 4000 B.C. to the twentieth century, including an in-depth analysis of the similarities and contrasts between both areas. The student will develop an ability to interpret a work of art based on the arrangement of the elements of design. The student will develop the ability to listen to music critically and to interpret the various characteristics (fundamental elements) within a musical composition and to analyze particular forms of music. The course is designed to provide on-site lectures at required field trips to art museums and concerts in the Baltimore-Washington area and to expose the student to the high-quality museum exhibits and concerts available, providing the student with a fine arts experience.

### FINANCIAL PLANNING

# FNPL-101 Personal Financial Planning Principles

#### 3 Credits

This course will cover the principles of financial planning in the following areas: the financial planning process; insurance; investment decisions; income tax planning; retirement and estate planning. After completion of this course a student will understand the terminology and concepts of financial planning, and will be prepared to study specialized information in any of the above mentioned areas. (3 hours weekly)

### FNPL-201 Investment Analysis and Portfolio Selection

#### 3 Credits

Upon the completion of this course a student will understand the variety of investment vehicles which are offered today. He/she will better self-advise or advise others in financial investments in the following areas: long-term securities; stocks and bonds; limited income securities; treasury bills; mutual funds. An overview of analytical techniques, construction of investment portfo-

lio and tax considerations will be presented as well. (3 hours weekly)

### FNPL-202 Risk Management and Insurance 3 Credits

An introduction to the field of insurance. The student will examine the various types of risks and the approaches taken by insurance firms. The course provides an analysis of life, health, property and liability insurance, fire insurance, homeowners and personal auto policies, as well as employee benefit plans and determination of insurance needs. (3 hours weekly)

### **FRENCH**

#### FREN-101 Elementary French I 4 Credits (Humanities Core)

In this introductory course, students learn to listen, speak, write and read on a basic level. They also learn about the diverse cultures of the French-speaking world. Instruction focuses on oral communication, and is supported by a computerized classroom and peer learning groups. This course meets for 4 hours per week; students meet with their instructor in a computerized classroom for 3 hours per week; the fourth hour is reserved for individual computerized practice and conversation groups.

#### FREN-102 Elementary French II 4 Credits (Humanities Core)

Students continue to develop the four basic skills, particularly oral communication, and to look inside the cultures of France, West Africa, Canada and the Caribbean. They will develop a project which reflects personal goals for learning French. Instruction focuses on oral communication, and is supported by a computerized classroom and conversation specialists. This course meets for 4 hours per week; students meet with their instructor in a computerized classroom for 3 hours per week; the fourth hour is reserved for individual computerized practice and conversation groups.

### FREN-201 Intermediate French I 4 Credits (Humanities Core)

Students in this second year course will use the skills needed to listen, speak, write and read in French in the context of a series of communicative activities. They will expand their knowledge of the peoples of the French-speaking world and will, through the use of multimedia technology, create a personalized project reflective of individual interests in French. Instruction focuses on oral communication, and is supported by a computerized classroom and conversation specialists. This course meets for 4 hours per week; students meet with their instructor in a computerized classroom for 3 hours per week; the fourth hour is reserved for individual computerized practice and conversation groups.

#### FREN-202 Intermediate French II 4 Credits (Humanities Core)

This final course of the 4 semester sequence fulfills the language requirement at most four-year institutions. Students will produce a mini-project in each of the four skill areas as they acquire the basics of intermediate French. Instruction focuses on oral communication, and is supported by a computerized classroom and conversation specialists. This course meets for 4 hours per week; students meet with their instructor in a computerized classroom for 3 hours per week; the fourth hour is reserved for individual computerized practice and conversation groups.

### **GEOGRAPHY**

#### GEOG-101 Introduction to World Geography 3 Credits (Social and Behavioral Sciences Core)

This course will focus on the effects of spatial relationships on the earth's human population. We will study the location of people, relative to each other. The student will examine the physical environment and how it influences spatial decision-making processes. We will analyze the geo-economic relationships which influence the earth's settlement patterns. The student will develop an understanding of the increasingly interdependent and interconnected world in which we live, and the relationship between the actions of the individual and the impact which these actions have on other places in the world. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111. (3 hours weekly)

#### GEOG-102 Elements of Cultural Geography 3 Credits (Social and Behavioral Sciences Core)

In Cultural Geography the student will be able to demonstrate how the surface of the earth has been changing during the time span of human occupancy and how, in using that surface, human technology has grown and prospered. Eligible to enroll in ENGL-101 or ENGL-111 (3 hours weekly)

### GEOG-201 Economic Geography 3 Credits

This course will focus on the interdependence and interrelationships of the global economy. We will study the location of economic activity at the local, national and world scale. We will examine the distribution of economic activity, the use of the world's resources, and the spatial organization and evolution of the world economy. The student will be able to demonstrate a knowledge of the issues of pollution and resource depletion, food and famine, accessibility and isolation, land use, production processes, economic development, and global trade relationships. Prerequisite: GEOG-101 or GEOG-102. (3 hours weekly)

### **GEOLOGY**

# GEOL-107 Introduction to Physical Geology 3 Credits (Science Core)

This course is designed as an introduction to the composition and structure of the earth, its rocks and minerals, surface erosional and depositional features, and the agents that form them. Topics include plate tectonics, volcanoes, weathering and erosion, earthquakes, streams and groundwater, glaciers, shorelines, faults and geologic structures. For Introduction to Physical Geology Laboratory, see GEOL-117. (3 hours lecture)

#### GEOL-109 Historical Geology 4 Credits

This is a course in which the principles of physical geology and stratigraphy are used to study the history of the earth and its inhabitants. The formations and geologic periods of North America will be emphasized. In the lab, the student will become familiar with fossils, rocks, minerals and the use of maps in geologic inter-

pretations. There will be several field trips to local sites. (3 hours lecture, 3 hours lab)

#### GEOL-115 Regional Geology 4 Credits

Regional Geology is a course which examines the major geological provinces of North America with regard to their topographic features and major rock structures. Basic concepts of physical and/or historical geology will be further developed to provide students with better understanding of geological processes in their present day expression. An emphasis will be placed on the local provinces of Maryland, Pennsylvania and Virginia. Four field trips are planned to study the geological features of the local provinces. Prerequisite: GEOL-107 (3 hours lecture, 3 hours lab)

# GEOL-117 Introduction to Physical Geology Lab

#### 1 Credit (Science Core)

In this course, students will utilize the basic materials and tools of physical geology to identify common minerals and rocks. Students will learn to recognize surface erosional and depositional features on aerial photographs and topographic maps, and will interpret geologic faults and structures on geologic maps and models. There will be several field trips to local sites. Pre- or corequisite: GEOL-107. (3 hours lab)

### **GERMAN**

### GERM-101 Elementary German I 4 Credits (Humanities Core)

In this introductory course, students learn to listen, speak, write and read on a basic level. They also learn about the diverse cultures of the German-speaking world. Instruction focuses on oral communication, and is supported by a computerized classroom and peer learning groups. Instruction focuses on oral communication, and is supported by a computerized classroom and conversation specialists. This course meets for 4 hours per week; students meet with their instructor in a computerized classroom for 3 hours per week; the fourth hour is reserved for individual computerized practice and conversation groups.

#### GERM-102 Elementary German II 4 Credits (Humanities Core)

Students continue to develop the four basic skills, particularly oral communication, and to look inside the cultures of Germany, Austria and German-speaking Switzerland. They will develop a project which reflects personal goals for learning German. Instruction focuses on oral communication, and is supported by a computerized classroom and conversation specialists. This course meets for 4 hours per week; students meet with their instructor in a computerized classroom for 3 hours per week; the fourth hour is reserved for individual computerized practice and conversation groups.

# GERM-201 Intermediate German I 4 Credits (Humanities Core)

Students in this second year course will use the skills needed to listen, speak, write and read in German in the context of a series of communicative activities. They will expand their knowledge of the peoples of the German-speaking world and will, through the use of multimedia technology, create a personalized project reflective of individual interests in German. Instruction focuses on oral communication, and is supported by a computerized classroom and conversation specialists. This course meets for 4 hours per week; students meet with their instructor in a computerized classroom for 3 hours per week; the fourth hour is reserved for individual computerized practice and conversation groups.

# GERM-202 Intermediate German II 4 Credits (Humanities Core)

This final course of the 4 semester sequence fulfills the language requirement at most four-year institutions. Students will produce a mini-project in each of the four skill areas as they acquire the basics of intermediate German. Instruction focuses on oral communication, and is supported by a computerized classroom and conversation specialists. This course meets for 4 hours per week; students meet with their instructor in a computerized classroom for 3 hours per week; the fourth hour is reserved for individual computerized practice and conversation groups.

### **HEALTH CARE**

### HEAL-110 The Health Care Professional 2 credits

The role of the health care professional is explored and includes an overview of careers in the health care system. Common issues to be studied include environmental health concerns, infection control, legal and ethical trends and professional responsibility. A major focus will include medical terminology and application of professional practices to both hospital and pre-hospital environments. Communication skills will include the effect of interpersonal relationships and the impact of working with diverse populations. Computerization and the use of technology in the health care field will be explored. (2 hours weekly)

#### HEAL-112 Health Care Professional Lab 1 credit

This course is an overview of the health care system and health care opportunities. The influence of interpersonal skills and technology is a major focus while students have the opportunity to observe the health care worker in a variety of areas in the clinical setting. Corequisite: HEAL-110 and health requirements. (3 hours lab)

# HEAL-212 Health Care Issues in BMET 3 credits

At the completion of this course, the student will be prepared to function independently and effectively in a work environment. She/he will be able to incorporate appropriate observational, interpersonal and communication skills into the profession. The BMET student will possess a working knowledge of health care and roles in the team approach. Prerequisite: HEAL-110 or HEAL-111. (1 class hour and 6 laboratory hours weekly)

### **HEALTH EDUCATION**

#### HEED-100 Introduction to Lifetime Fitness 1 Credit (Interdisciplinary and Emerging Issues Core

This course is designed to provide the student with the principles and methods necessary to maintaining personal fitness and health. The concept of wellness, and

the roles of physical fitness, nutrition, weight management, and stress play in personal wellness development are examined. Participation in labs, classroom activities, and take-home assignments will assist the student in evaluating their personal fitness levels as well as developing a strategy for improvement. (1 hour weekly

### HEED-102 Introduction to Weight Management 1 Credit (Interdisciplinary and Emerging Issues Core)

This course is designed to provide students with the knowledge and means for developing a personal weight control plan. The course will examine commercial diet programs, fad diets, and effective weight loss strategies. Students will study the role body composition and weight have in health/wellness. (1 hour weekly)

### HEED-104 Personal Nutrition Assessment 1 Credit

Students are introduced to a computerized nutritional assessment program. Students evaluate their current nutritional status and develop strategies for improvement. Various group discussions, lectures, and labs provide students with the means to critically evaluate their dietary practices. (1 hour weekly)

### HEED-105 Pediatric Basic Life Support Plus 1 Credit

This course is designed to prepare students to recognize and intervene appropriately in situations requiring infant and child CPR or management of foreign body airway obstruction in the conscious or unconscious victim. This course includes techniques to be used for victims from birth to 8 years of age. Recognition of potential safety hazards, water safety, and accident prevention are also discussed. (1 hour weekly)

#### HEED-106 Introduction to Stress Management 1 credit (Interdisciplinary and Emerging Issues Core)

This course is designed to provide students with a basic understanding of the concepts of stress management and the application of these concepts to personal stress management. Students will be presented with various tools and strategies for managing stress and will use these to develop an individual stress management plan. (1 hour weekly)

### HEED-109 Basic CPR and First Aid 2 Credits (Interdisciplinary and Emerging Issues Core)

This course is designed to acquaint students with theories and techniques of CPR and First Aid and Safety. After the successful completion of this course a one-year card will be awarded in Infant, Child and Adult CPR (valid one year) and certification in First Aid and Safety (valid three years). (2 hours weekly)

#### HEED-110 Introduction to Personal Wellness 1 credit (Interdisciplinary and Emerging Issues Core)

This course is designed to provide the student with an overview of the components of wellness. These components will include stress, physical fitness, nutrition, safety, and weight management. The principles, concepts, and practices necessary to improve one's personal wellness will be examined. Students will participate in presentations, laboratories, and assessments designed to evaluate their individual wellness plan to improve areas of concern. (1 hour weekly)

#### HEED-111 Introduction to Health Education 3 Credits (Interdisciplinary and Emerging Issues Core)

Health education theories are foundational for this course and provide the framework for students to integrate concepts fundamental to health, health education and wellness. Areas of personal health which need improvement will be identified. Opinions of health policy leaders are discussed in relationship to the outcomes on society and objectives for health promotion and disease prevention. (3 hours weekly).

# HEED-112 First Aid and Safety 3 Credits (Interdisciplinary and Emerging Issues Core)

A study of techniques of cardiopulmonary resuscitation, including one- and two-person rescue for infants, children and adults and actions for emergency situations. This course will prepare you to make appropriate decisions regarding first aid care and to act on those decisions. Students will be eligible to receive CPR and First Aid Certification.(3 hours weekly)

### HEED-113 Drug Use and Abuse 3 Credits (Interdisciplinary and Emerging Issues Core)

This course will examine drug use relevant to the use and abuse of drugs. Upon completion of this course the student will be able to identify the physiological, psychological, social and cultural implications of drug use. In addition the historical and legal aspects of drug use will be presented in the context of this course. (3 hours weekly)

#### **HEED-115** Personal and Community Health 3 Credits (Interdisciplinary and Emerging Issues Core)

This course will synthesize the important facts and concepts of a variety of college level courses including biology, physiology, anatomy, ecology, psychology, and sociology into a meaningful dialogue that will motivate the student to modify their health practices to a high level of effective and enjoyable living. (3 hours weekly)

### **HEED-120** Medical Aspects of Chemical Dependency

#### 3 Credits

Upon completion of this course, the student will be able to identify concepts relevant to alcoholism and the medical aspects of addiction. In addition, the course will include the pharmacology of alcohol and other addictive substances. (3 hours weekly)

### HEED-121 Introduction to Chemical **Dependency Treatment**

#### 3 Credits

This course provides students with the opportunity to study the various modalities of addiction therapy. Counseling skills and the philosophical aspects of addiction will also be presented in this course. (3 hours weekly)

### **HEED-122** Basic Chemical Dependency Counseling Skills

#### 3 Credits

Focuses on counseling skills needed to establish and maintain an effective helping relationship with substance abusers and their families. Course includes outside site visits and/or class projects. (3 hours weekly)

### HEED-123 Group Counseling Skills (Chemical Dependency

#### 3 credits

Students will receive training in using a group counseling model with chemically dependent individuals. Emphasis will be on group, client and counselor contributions to the group process and how these factors influence and interrelate with each other. (3 hours weekly)

### HEED-124 Family Counseling (Chemical Dependency)

#### 3 credits

The family as a complex interactive system is defined in this course. Traditional views of individual pathology will be re-explored and redefined as students come to view substance abuse, mental abuse, and other psychosocial problems as family problems. Students will think diagnostically about families utilizing theory and various techniques, strategies, and approaches that are relevant to work with families.

### HEED-150 Women's Health 3 Credits (Interdisciplinary and Emerging Issues Core)

This course will introduce students to a variety of women's health issues as well as the barriers faced by women striving to achieve a healthful lifestyle. Students will examine topics including: female sexual health and reproduction, exercise and eating behaviors, substance abuse, mental health and stress, and violence against women. This course is designed to support students in their personal exploration of attitudes, knowledge and values related to women's health and to assist them as they analyze their personal health behaviors. (3 hours weekly) NOTE: Also listed as WMST-150.

### HEED-160 The Aging Process: Gerontology 3 Credits (Interdisciplinary and Emerging Issues Core)

This course will focus on the physiological, psychological and social changes that impact upon the aging population. In addition the student will focus on assessment and counseling skills relevant to preserving independence in the aged, and meeting the health needs of the aging population. (3 hours weekly)

#### HEED-200 Health/Fitness Leader 3 Credits (Interdisciplinary and Emerging Issues Core)

This class is designed to provide the student who is interested in the wellness field with the knowledge and skills necessary to function as an exercise/fitness leader. The class covers core behavioral objectives set up for the following certifications: American College of Sports Medicine's Exercise Leader, the National Strength and Conditioning's Certified Personal Trainer, and the American Council for Exercise Personal Trainer. Students will be introduced to various aspects of the exercise/fitness field including risk factor evaluation, fitness assessment, exercise prescription, and program development. (3 hours weekly)

# HEED-210 Foundations of Health Education and Health Behavior

# 3 Credits (Interdisciplinary and Emerging Issues Core)

This course will examine the scientific and philosophical bases for various theories of health, including health, wellness, individual control and limitations of health status, and holistic health. Also examined will be the psychological, social psychological, and sociological approaches to the following health areas: development of health attitudes and behavior, patient-provider interaction and the organization of health care. (3 hours weekly)

#### **HEED-211 Nutrition**

# 3 Credits (Interdisciplinary and Emerging Issues Core)

This course focuses on the basic concepts of nutrition and the application of nutritional principles to wellness across the lifespan. Methods will be used to evaluate and meet nutritional norms and include application to weight management. (3 hours weekly)

### HEED-212 Current Health Issues 3 Credits (Interdisciplinary and Emerging Issues Core)

This course will examine issues and trends relevant to consumer health decisions. Environmental health, the health care system and mental health are topics included in the course. Upon completion of the course the student will be able to identify current consumer

health issues related to health of the nation. (3 hours weekly)

# HEED-213 Stress Management 3 Credits (Interdisciplinary and Emerging Issues Core)

This course is designed to provide the student with the principles and methods necessary to developing a personal stress management plan as well as experience various means of stress reduction and relaxation. The concept of wellness, and the role stress and stress management play in personal wellness development are examined. (3 hours weekly)

#### **HISTORY**

#### HIST-111 American History to 1877 3 Credits (History Core/Social and Behavioral Sciences Core)

As a result of having taken this course, the student will be able to describe the major political, diplomatic, economic, and social developments from the fifteenth century through the Reconstruction period. In particular, the student will study the Red, Black and White cultures of pre-Revolutionary America; the American Revolution and the development of American republicanism; the Transportation Revolution and the emergence of a market economy; territorial expansion and wars; 1783-1860; antebellum reformers; Civil War, 1861-1865; Reconstruction, 1865-1877. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111. (3 hours weekly)

### HIST-112 American History Since 1877 3 Credits (History Core/Social and Behavioral Sciences Core)

As a result of having taken this course, the student will be able to describe the major political, diplomatic, economic, and social developments in American history from the end of the Reconstruction period to the present. In particular, the student will study: the rise of industrial capitalism, the mechanization of agriculture; the end of the frontier and the wars with the Native-Americans; immigration; urbanization; the changing role of the family; the history of women; the history of Afro-Americans; the political party system; the Populist, Progressive and New Deal reforms; the impact of the New Deal on

current domestic politics; and the impact of World War II and the Cold War on American Foreign Policy. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111. (3 hours weekly)

# HIST-121 The Ancient World: Prehistory to the Middle Ages

# 3 credits (History Core/Social and Behavioral Sciences Core)

The student will be able to describe the history and development of early world civilizations through the 13th century. The student will be able to identify and analyze the major political, economic, and intellectual movements that influenced these civilizations. The student will be able to analyze and discuss, from primary and secondary sources, the impact Middle Eastern, Asian, African, and Classical cultures had on Western Civilization. This course was formerly HIST-101. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111. (3 hours weekly

#### HIST-122 Western Civilization and the Pre-Modern World

## 3 credits (History Core/Social and Behavioral Sciences Core)

The student will be able to describe the major features of the development of western civilization and its relationship to non-western cultures from the late Middle Ages to 1815. The course will include the use of primary and secondary sources to focus on social, economic, political, and cultural factors influencing the relationship of western and non-western societies. Prerequisites: Eligible to enroll in ENGL-101 or ENGL-111. (3 hours weekly)

# HIST-123 Western Civilization and the Modern World

# 3 credits (History Core/Social and Behavioral Sciences Core)

The student will be able to describe the history and development of Western Civilization and its impact on the world from 1815 to the present. The student will identify and analyze the political, economic and intellectual movements that influenced the Western European mind. The student will examine the character of the evolving modern nation state system through the wars of unification, overseas expansion, and the competitive national rivalries. The student will evaluate the underlying

factors influencing the events that shaped the modern world, including two World Wars and the Cold War. The student will examine how the post-1945 conditions affect the attitudes and makeup of the former colonial world. This course was formerly HIST-102. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111. (3 hours weekly)

#### HIST-200 History of Maryland 3 Credits

As a result of having taken this course, the student will be able to describe and critically evaluate the major developments in the history of Maryland and Howard County from colonial times to the present. The student will also be able to examine the major primary source materials used in the study of local history. Prerequisite: ENGL-101 or ENGL-111. (3 hours weekly)

#### HIST-201 Europe in the Twentieth Century 3 Credits (Social and Behavioral Sciences Core)

The student will be able to describe the political, economic, intellectual and cultural development in Europe beginning with the events and conditions that led to the breakdown of European stability and World War I. The student will examine the diplomatic maneuverings of the Peace of Paris and its consequences, the roots and impacts of the Bolshevik Revolution in Russia and the evolution and development of totalitarianism in Germany and Italy. The student will also explain the origins, events, and results of World War II, the Cold War, the collapse of the Soviet Empire, and the quest for a united Europe. Prerequisite: ENGL-101 or ENGL-111. (3 hours weekly)

## HIST-205 A History of Race and Ethnicity in the United States

#### 3 Credits

This course focuses on a "neglected dimension" in American History and society, namely the study of the diverse racial and ethnic and other non-traditional communities in the United States. The impact of the Anglocore culture on our political, religious and economic institutions - Democracy, Protestantism, Capitalism - is the major frame of reference. Assimilationist and power conflict sociological models are applied to white, ethnic, Native-American, Afro-American, Hispanic-American and Asian- American groups. Immigration policies and

hatred towards diverse groups are studied from historical and contemporary perspectives. Prerequisite: ENGL-101 or ENGL-111. (3 hours weekly)

### HIST-211 Asian Civilization - China, Japan and Korea

### 3 Credits (Social and Behavioral Sciences Core)

This study of East Asian history will focus on the interaction of China with Japan, Korea, and the West. It will enable students to gain a perspective from an Asian point of view rather than a western one. Students will concentrate on events in the 18th, 19th, and 20th Centuries. At the end of the course, they will be able to describe major political, economic, social, and intellectual developments in the Pacific region. Pre-requisite: ENGL-101 or ENGL-111. (3 hours weekly)

#### HIST-213 History of Modern Russia 3 Credits (Social and Behavioral Sciences Core)

The student will be introduced to the history and development of the modern state of Russia from the establishment of the Romanov dynasty through the Revolution of 1917 to Stalin, Perestroika and the collapse of the Soviet Union. Prerequisite: ENGL-101 or ENGL-111. (3 hours weekly)

### HIST-215 Celtic Ireland 3 Credits

The student will be able to describe the history and development of Ireland from the Celtic settlements to the Cromwellian occupation. The student will be able to evaluate the impact and response of native Irish society and culture to Celtic, Christian, Norse, Anglo-Saxon and British influences. Prerequisite: ENGL-101 or ENGL-111. (3 hours weekly)

# HIST-220 History and Literature of Victorian and Edwardian Britain 3 Credits

The student will be able to discuss and evaluate the historical and cultural epochs of nineteenth and early twentieth century Britain as expressed through its literature. The student will accomplish these objectives through their studies of the major trends and dominating influences of the romantic movement, the social upheaval of the industrial revolution, the Victorian age of afflu-

ence, the era of imperialism, the Edwardian age, and the trauma of the First World War epoch. This cross disciplinary course is a team-taught class. Prerequisite: ENGL-101 or ENGL-111. (3 hours weekly) NOTE: Also listed as EG220.

#### HIST-221 American History Since 1945 3 Credits

The student will study the major political, economic, social and cultural trends from the end of World War II to the present. In particular, students will focus on the origins, implementation, and the end of our Cold War foreign policies as well as study changes on the recent domestic scene such as the imperial Presidency, the welfare state, the technetronic economy, the Black Revolution, Women's Liberation and the evolving social, cultural, and moral landscape. Prerequisite: ENGL-101 or ENGL-111. (3 hours weekly)

### HIST-225 Women in American History: Colonial Times to 1880

### 3 credits (Interdisciplinary and Emerging Issues Core)

An in-depth study of the lives and experiences of American women from the early seventeenth century to 1880. This course examines three major cultures—native, African and European as they met and mixed in colonial America with particular attention to women's experience in this cultural mixing. Focus will be on wealthy merchant families, slave holding planter families, indentured servants, slaves, factory workers, and immigrants and will include women's relationships with husbands, children and other women. Prerequisite: ENGL-101 or ENGL-111 (3 hours weekly) Note: Also listed as WMST-225.

# HIST-226 History of African American Experience

# 3 credits (Social and Behavioral Sciences Core)

This course will examine the African American experience in the United States from slavery to the present era. The student will study the chronology of black history, the African heritage, the crucible of slavery, the struggle for equality, Pan Africanism, and the development and evolution of the African American community. Special attention will be given to African American

personages and their contributions to American society. The evolution of contemporary race relationships will be evaluated. Prerequisite: ENGL-101 or ENGL-111. (3 hours weekly)

### HIST-227 Women in American History: 1880 to the Present

### 3 Credits (Interdisciplinary and Emerging Issues Core)

An in-depth study of the lives and experiences of American women from diverse racial and ethnic groups from 1880 to the present. This course examines the experiences of women in the modern world from the end of the nineteenth century through the twentieth. Focus will be on the varying experiences of reformers, workers, organizers, and immigrants with particular attention to differences between married and single women and between those living in the cities and those living in rural areas. During this time period, women have gained the legal right to vote and run for office, regulate the size of their families, and receive equal pay for equal work. And yet women retain primary responsibility for housekeeping and child care. This course considers the roots of some of these contradictions. Prerequisite: ENGL-101 or ENGL-111. (3 hours weekly) Note: Also listed as WMST-227.

### HIST-228 Women in European History: 1750 tothe Present

# 3 Credits (Intedisciplinary and Emerging Issues Core)

This course anlayzes women's changing economic, family, and political roles from the eighteenth to the twentieth century. Topics include the effects of industrialization on women's work and status, the demographic revolution, and women's political activities in market riots, revolutions, and campaigns for women's rights. Prerequisite: ENGL-101 or ENGL-111. (3 hours weekly) NOTE: Also listed as WMST-228.

### **HUMAN DEVELOPMENT**

# HMDV-100 Introduction to Human Relations 3 Credits

The purpose of this course is to promote personal growth and to improve relationships with others. Skills in active listening and group processes will be devel-

oped. Students will identify values, strengths and positive life experiences as a means of enhancing self-confidence. The thrust of the class activities and presentations will be directed at personal life, college and on the job situations. The emphasis is on an integration of thoughts and feelings about oneself and others, and expressing feelings and receiving feedback from others. (3 hours weekly)

#### HMDV-105 Silas Craft Collegians Seminar I 1 Credit

This course is a special one-credit course for students enrolled in the **Silas Craft Collegians Program**. The purpose of this course is to promote personal growth and development and enhance the learning potential and success of students. While this course focuses on a broad range of personal development topics, it will focus particularly on life skills, self-esteem, and group dynamics and team building. (2 hours weekly)

### HMDV-106 Silas Craft Collegians Seminar II 1 Credit

This course is a special one-credit course for students enrolled in the **Silas Craft Collegians Program**. While this course focuses on a broad range of personal development topics, it will continue the topics discussed in HMDV-105 and will also include motivation, active listening, responsibility, and discipline. (2 hours weekly)

#### HMDV-107 Silas Craft Collegians Seminar III 1 Credit

This course is a special one-credit course for students enrolled in the **Silas Craft Collegians Program**. It will extend the examination of the topics introduced in HMDV-105 and HMDV-106 and will include goal-setting and goal management as a major focus. (2 hours weekly)

#### HMDV-120 Career Development and Decision Making

#### 3 Credits

The purpose of this course is to provide a setting for students to systematically examine the skills required to make effective career decisions and formulate life goals. Through a process of self-assessment and exploration of career information resources, the student will consider career possibilities and develop a probable career choice. (3 hours weekly)

### HMDV-130 Adult Development 3 Credits

The purpose of this course is to examine the physical, intellectual, emotional and social development of individuals from ages 18 through old age. Students will examine the predictable and unpredictable life changes throughout adulthood. (3 hours weekly)

#### HMDV-150 Scholars Seminar I 1 Credit

This course is a special one credit course for students enrolled in the **Rouse Scholars Program**. The purpose of this course is to cover selected leadership, group and interpersonal development topics designed to help students explore their personal and leadership attributes. A significant component of the HMDV-150 also involves career exploration through work with a community mentor.

### HMDV-151 Scholars Seminar II 1 Credit

This course is a special one credit course for students enrolled in the **Rouse Scholars Program**. The purpose of this course is to extend topics taught in HMDV-150 and will cover selected leadership, group and interpersonal development topics designed to help students explore their personal and leadership attributes. A significant component of HMDV-151 also involves career exploration through work with a community mentor.

#### HMDV-200 Life Span Development 3 Credits (Interdisciplinary and Emerging Issues Core

The purpose of this course is to examine the growth and development of an individual throughout his/her life. Beginning with the prenatal period and continuing through old age, development from a physical, intellectual, emotional and social perspective will be studied. Theories on development and current research in the field will be reviewed with an emphasis on application of individual case histories and personal experiences. This course meets the Maryland State Department of Education Child Development requirement for an initial certificate in Early Childhood Education, Elementary Education, and Secondary Education. This course also meets the MSDE Human Growth and Development requirement for an initial certificate in Generic Special

Education Infant/Primary, Generic Special Education Elementary/Middle, and Generic Special Education Secondary/Adult. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111. (3 hours weekly)

### HMDV-205 Silas Craft Collegians Seminar IV 1 Credit

This course is a special one credit course for students enrolled in the Silas Craft Collegians Program. While this course focuses on a broad range of personal development topics, it will re-emphasize team-building and the learning community concept. Decision-making and consequential thinking will be a major focus. (2 hours weekly)

#### HMDV-206 Silas Craft Collegians Seminar V 1 Credit

This course is a special one credit course for students enrolled in the **Silas Craft Collegians Program**. It will extend the examination of the issues introduced in HMDV-205 as well as returning to any of the other topics of the Silas Craft Collegians Seminar that remerge as issues. Leadership skills will be a major new focus. (2 hours weekly)

#### HMDV-207 Silas Craft Collegians Seminar VI 1 Credit

This course is a special one credit course for students enrolled in the **Silas Craft Collegians Program**. It will continue the examination of leadership skills including conflict resolution. In addition, it will focus on the pressures and issues related to the upcoming transfer of the students to four-year institutions. (2 hours weekly)

# HMDV-250 Scholars Seminar III 1 Credit

This course is a special one credit course for students enrolled in the **Rouse Scholars Program**. The purpose of this course is to extend topics taught in HMDV-150 and HMDV-151. The seminar will cover selected leadership, group and interpersonal development topics designed to help students explore leadership capabilities. A significant component of HMDV-250 involves applying leadership skills to complete an extended community service project.

#### HMDV-251 Scholars Seminar IV 1 Credit

This course is a special one credit course for students enrolled in the **Rouse Scholars Program**. The purpose of this course is to extend topics taught in HMDV-250 and will cover selected leadership, group and interpersonal development topics designed to help students explore leadership capabilities. A significant component of HMDV-250 involves applying leadership skills to complete an extended community service project.

### **ITALIAN**

#### ITAL-101 Elementary Italian I 4 Credits (Humanities Core)

In the introductory course, students learn to listen, speak, write and read on a basic level. They also learn about Italian culture and society. Instruction focuses on oral communication, and is supported by a computerized classroom and conversation specialists. This course meets for 4 hours per week; students meet with their instructor in a computerized classroom for 3 hours per week; the fourth hour is reserved for individual computerized practice and conversation groups.

### **LIFE FITNESS**

### LFIT-110 Swimming - Beginning 1 Credit

This course is designed to orient students to the aquatic environment and teach them elementary skills which can be built on as they progress in swimming skills. Students will build on the fundamental aquatic locomotion, safety, and rescue skills as they advance through the course. (2 hours weekly)

### LFIT-112 Lifeguard Training 1 Credit

This course is designed to provide the necessary minimum skills training for a person to qualify as a non-surf lifeguard. This training should be supplemented with training specific to the facility. This course provides ample opportunity for participants to learn and practice new skills, and to build their endurance so that these

skills can be accomplished, and the course successfully completed. Prerequisite: persons are eligible who will be fifteen by the final class; are in sound physical condition; can swim 500 yards continuously using a front crawl stroke, sidestroke, and breaststroke; can tread water, legs only, for two minutes; and swim to a depth of seven feet. (2.5 hours weekly)

#### LFIT-113 Water Safety Instructor 1 Credit

This course is designed to train instructor candidates to teach the Infant and Preschool Aquatics Program; the seven levels of the Learn to Swim Program; the Basic Water Safety, Emergency Water Safety, and Water Safety Instructor Aide courses; and, for the eligible individuals, the Safety Training for Swim Coaches course. This course teaches instructor candidates how to use course materials, conduct training sessions, evaluate student progress, and prepare and submit records and reports. Instructor Candidate Training will be included in this course. Prerequisite: persons are eligible who will be seventeen by the final class. (3 hours weekly)

#### LFIT-114 Basic Scuba 1 Credit

This course is designed for the novice skin and scuba diving enthusiast. Emphasis is placed on physical conditioning, perfection of essential skills, and study of the physics and physiology of diving. Also, external hazards of diving and care and maintenance of equipment are studied. All course activities take place in the classroom and pool of Howard Community College. Prerequisite: Minimum age for participation is 12 years. If under 16 years of age, must register for the course with an adult. Pass a Watermanship Skills Test. (2 hours weekly)

# LFIT-116 Fitness through Swimming 1 Credit

This course is designed to provide the student with an introduction to swimming and aquatic activities as a means of fitness development and maintenance. In addition to pool sessions, the student will be presented with a series of lectures designed to present to them the basic concepts of fitness development in general, as well as how they relate specifically to swimming. The student will also have the opportunity to learn the

techniques and skills involved in snorkeling. Prerequisite: Swim 25-yards, non-stop, using any of the standard swimming strokes. (2 hours weekly)

### LFIT-117 Aquafit 1 Credit

Aquafit is a vertical water fitness program designed to improve cardiorespiratory endurance, muscular strength, and flexibility of participants. The course will help the student increase fitness level, improve muscle tone, and look and feel better. Aquafit will be individualized to fit each student's fitness level and swimming ability. (2 hours weekly)

#### LFIT-120 Aerobic Dance 1 Credit

This course is designed to provide continuous movement through exercise and dance routines. Emphasis will be placed on the physiological benefits of aerobic dance. The course will provide students with the opportunity to maintain an intermediate level of cardiovascular fitness. (2 hours weekly)

#### LFIT-123 Step Aerobics 1 Credit

This course will introduce you to the fundamentals of Step Aerobics, including information on the science, technique and footwork. Exploration of the "physiological" effects and "biomechanical" effects will be covered. There is no prerequisite for this course. (2 hours weekly)

#### LFIT-124 Conditioning 1 Credit

This course is designed to help students develop an understanding of conditioning techniques through weight training and endurance training. Students will be exposed to exercise bikes, the universal gym and jogging techniques. Specific exercises will be recommended for the development of a personal conditioning program. (2 hours weekly)

### LFIT-125 Golf 1 Credit

This course is designed to introduce the student to the various aspects of golf. The use of the different types of clubs including the various woods and irons. Proper

stroke and putting skills will also be covered. Scoring, course etiquette, and golfing safety will be covered. Students will receive instruction and playing time on a regulation golf course. (2 hours weekly)

#### LFIT-126 Yoga I 1 Credit

This course is designed to provide students with the knowledge and ability to practice Indian Yoga. Students will experience how yoga can be used to improve health and well-being of mind and body. (1 hour weekly)

#### LFIT-127 Tai Chi 1 Credit

This course is designed to provide the students with a knowledge and ability to perform the ancient Chinese martial art Tai Chi. The health aspects of Tai Chi practice will be emphasized. Students will also be presented with the history and philosophy of Tai Chi. (2 hours weekly)

#### LFIT-128 Martial Arts I 1 Credit

This course is designed to provide the student with an understanding of the martial arts of the World. Students will be presented with and practice, in class, the Indonesian martial art of Pentjak Silat. This form of martial art involves the use of hand strikes, kicking, elbowing, takedowns, throws, and locks. The historical and cultural basis of various martial arts in general, as well as Pentjak Silat specifically, will be presented. (2 hours weekly)

#### LFIT-129 Self Defense 1 Credit

This course is designed to introduce the student to the principles and concepts of personal safety and self defense. The theories, strategies, and techniques of the Burmese martial art of Bando will form the base used to develop physical self-defense competency. Development of self-protective awareness will be emphasized. The philosophy, history, legality, and psychology of self defense will be presented. (2 hours weekly)

#### LFIT-132 Yoga II 1 Credit

This course is designed to provide the student with the skill to perform a variety of advanced Hatha yoga posi-

tions and an understanding and experience of meditation. Students will learn the role yoga and meditation play in the two-way relaxation response between mind/body and body/mind. This course will also give students an understanding of the effect yoga and meditation has on one's overall well-being physically and mentally. Students should have previous experience in practicing yoga. (2 hours weekly)

#### LFIT-133 Tennis - Beginning 1 Credit

This course is designed to provide students who have never participated in, or have had limited formal instruction in, the sport of tennis. Students will be taught the various tennis strokes, as well as the rules, etiquette, and strategies for playing tennis. (2 hours weekly)

#### LFIT-134 Tennis - Intermediate 1 Credit

This course is designed to provide the student with the opportunity to develop advanced stroke techniques as well as advanced player strategies for both singles and doubles play. Instruction will include advanced drills and alternate scoring methods, and singles and doubles tournament play. It is assumed that students in this course have previous experience in playing tennis. (2 hours weekly)

#### LFIT-135 Volleyball 1 Credit

This course is designed to provide the student the knowledge and basic skills of the recreational sport of volleyball. Students will receive instruction on the proper execution of the set, bump, serve and block. In addition, the history, rules, and various, offensive and defensive strategies of game play will be stressed. (2 hours weekly)

#### LFIT-132 Kickboxing for Fitness 1 Credit

This course is designed to provide students with opportunity to practice kickboxing as a means of aerobic and muscular conditioning. The techniques and training methods from the sport of kickboxing will be used to enhance the students exercise experience. Students need no prior training or experience in kickboxing. (2 hours weekly)

### LFIT-137 Circuit Weight Training 1 Credit

This course is designed to improve muscle strength/ endurance and cardiovascular fitness through participation in weight training and aerobic activities. (2 hours weekly)

#### LFIT-139 Intermediate Golf 1 Credit

This course is designed to inform the student of the proper etiquette and safety on the course, basic rules of play, understanding the procedures of playing a golf course, reading a score card, handicapping and types of matches. Students will be instructed in putting, chipping, use of short and long irons and woods. Emphasis will be placed on the procedures of playing golf and how to practice. Prerequisite: It is assumed that students in this course have previous experience in playing golf. (2 hours weekly)

# LFIT-202 Nautilus Fitness Development 2 Credits

This course is designed to provide the student with the knowledge and skills necessary to participate in Nautilus weight training. Students will learn to develop and implement personal Nautilus training programs based on the principles and procedures learned in class. The student will also receive instruction in related areas including basic anatomy and physiology as it relates to Nautilus training, nutrition, stress, relaxation, and safety concepts. (2 hours weekly)

### **MANAGEMENT**

### MAMT-101 Sales and Sales Management 3 Credits

This course deals with the various factors associated with selling and managing a sales force. The course will cover a range of topics including: communications in selling, market research, persuasion, prospecting, and motivation and supervision of salespeople. Considerable class time will be devoted to written and verbal sales presentations. Classes will be conducted by lecture, case studies, role playing, and personal experience input by students. Where possible, films, videos, and guest lecturers will be utilized. (3 hours weekly)

### MAMT-102 Small Business Management 3 Credits

Students will have an understanding of the major problems they will face and the pitfalls they must avoid if success is to be assured in the management/ownership of a small business. The student will be able to identify those factors critical in making small business decisions. The student will be able to plan, organize and lead small business operations. The student will develop skill in analyzing management problems and controlling them. (3 hours weekly)

# MAMT-131 Supervisory Development 3 Credits

Through this course, the student will develop a successful supervision in business, industry and government. Emphasis in MAMT-131 is on the understanding and demonstration of basic supervisory concepts as they relate to motivating individuals, maintaining group morale, building loyalty, and interpretation of attitude and supervisor/employee relations. Also, fundamental skill development will include activities in leadership, goal setting, decision making, individual and group communication, performance appraisal, time management, and assertiveness training. (3 hours weekly)

# MAMT-140 Principles of Management 3 Credits

This course will enable the student to identify and describe the major functions of management which include planning, organizing, leading and controlling. The student will also participate in individual and group activities which will provide practice in exercising these functions. Within this framework the student will be able to describe and apply the concepts of major contributors to the field of management such as Drucker, Taylor, Hertzberg, McGregor, Fayol, Maslow, Deming and Crosby. (3 hours weekly)

# MAMT-200 Management 2000: Managing for the Future

#### 3 Credits

This course addresses a growing interest on the part of those in management to develop a more efficient work-place, where new communication media and different management skills will need to be utilized. Demographics of a changing labor force and of a changing cus-

tomer base will be analyzed. The implications for managers as a result of these changes will be explored. Various trends in collecting, analyzing and disseminating information on a domestic as well as a global environment will be analyzed. Prerequisite: BMGT-100 or MAMT-140 or management experience. (3 hours weekly)

#### MAMT-240 Personnel Management 3 Credits

Management concepts are focused on the human element in business enterprises using lectures, videos, case studies and class discussions. Specific topics include employment, employee motivation, training, human relations and employee representation. Techniques of supervision will be emphasized. Prerequisite: BMGT-100. (3 hours weekly)

#### MAMT-241 Project Management 3 Credits

As a result of taking this course, the student will be able to estimate the time, manpower needs and equipment costs for the life cycle of a project. The student will be able to utilize various plan-relationships of the industry to the audience, advertisers, and government regulators. Prerequisite: ENGL-101 or ENGL-111. (3 hours weekly)

### **MASS MEDIA**

### MASS-129 Mass Media 3 Credits

The major forms of mass media are studied both historically and in their present forms. Emphasis is on the effects of radio, television, and film in our society. Eligible to enroll in ENGL-101 or ENGL-111. (3 hours weekly)

#### MASS-220 Introduction to Broadcasting 3 Credits

This course is a survey and introduction that concentrates on the historical development, scope, and influence of radio and television in America. Discussion in the course will focus on the philosophy, structure, organization and operation of the broadcasting medium, and will acquaint students with the inter-relationships of

the industry to the audience, advertisers, and government regulators. Prerequisite: ENGL-101 or ENGL-111. (3 hours weekly)

### MASS-221 Writing for Television and Radio 3 Credits

This course focuses on a basic approach to the different kinds of writing done for all types of television and radio programs. Students enrolled in this class will learn to write using standard and accepted broadcast script formats. Treatments, drafts and full scripts for a variety of program types will be explored in this class. Prerequisite: ENGL-101 or ENGL-111. (3 hours weekly)

### **MATHEMATICS**

### MATH-060 Basic Mathematics 2 Credits

In this course students will improve their arithmetic skills as well as their ability to solve applications of arithmetic. The subject areas will be addition, subtraction, multiplication, and division of whole numbers, fractions, decimals and integers. Also included are factoring numbers into the products of primes; conversion between decimals, fractions and percents; ratio and proportion problems; place value and least common multiples. The use of a scientific calculator as a problem solving tool is also taught. This course is taught using computer assisted instruction. Prerequisites: Appropriate score on math placement test; and ENGL-093 or appropriate score on the English placement test. (2 hours weekly)

# MATH-061 Basic Algebra & Geometry 4 Credits

In this course students will be introduced to algebraic topics such as working with integers, simplifying numeric expressions with exponents, combining similar terms, multiplying polynomials and evaluating algebraic expressions. They will learn to distinguish among examples of the commutative, associative and distributive properties. Students will solve first degree equations, solve and graph linear inequalities, graph lines and investigate slope, point-slope and the x- and y- intercepts. They will become familiar with elementary topics in geometry such as basic definitions. Ap-

plication problems will include perimeter, area, and angle measurement. This course is taught using computer assisted instruction. Prerequisites: MATH-060 or appropriate score on the math placement test; and ENGL-093 or appropriate score on the English placement test. (4 hours weekly)

#### MATH-064 Integrated Algebra and Geometry I 3 Credits

In this course students will develop skills in manipulating algebraic expressions with integer exponents and in simplifying polynomials and rational expressions. The student will become familiar with geometric terms associated with prisms and solve application problems involving those figures. Methods of factoring second degree polynomials will be emphasized. Factoring applications will also be included. The ability to solve equations will be expanded to include rational expressions and factorable quadratics. This course is taught using computer assisted instruction. Prerequisite: MATH-061 or appropriate score on the math placement test. (3 hours weekly)

#### MATH-065 Integrated Algebra and Geometry II 2 Credits

In this course students will extend basic algebraic skills to include simplifying, performing operation with, and solving equations involving square roots. The quadratic formula as a method for solving quadratic equations will be presented. Application problems will include use of the Theorem of Pythagoras and 30-60-90 and 45-45-90 triangles. Systems of equations will be solved graphically and algebraically. Prerequisite: MATH-064 (2 hours weekly)

# MATH-064/065 Integrated Algebra & Geometry I, II

5 Credits (3, 2)

In this course students will develop skills in manipulating algebraic expressions with integer exponents and in simplifying polynomials, rational expressions and square roots. Systems of equations will be solved graphically and algebraically. The student will become familiar with geometric terms associated with prisms and solve application problems involving those figures. Methods of factoring second degree polynomials will be emphasized. Applications involving factoring will also be included. The ability to solve equations will be expanded

to include rational expressions, radicals, and quadratic equations. The quadratic formula will be introduced. Application problems will include 30-60-90 and 45-45-90 triangles. Prerequisite: MATH-061 or appropriate score on the math placement test. (5 hours weekly)

# MATH - 070 Intermediate Algebra 3 Credits

The emphasis of this course is on using algebraic and graphical techniques to model and solve real world application problems. The use of a graphing calculator is required. Topics will include linear, quadratic and exponential functions, rational equations (both linear and quadratic), radical equations, linear and nonlinear systems, use of the discriminant and an introduction to probability and statistics. Prerequisite: MATH-065 or appropriate score on math placement test. (4 hours weekly)

#### MATH-105 Drug Calculations 1 Credit

Students will develop skills in the metric, apothecary and household systems of measurement. Drug calculation problems will provide the student with the opportunity to practice conversions between systems. Students will perform the computations necessary to administer medications in liquid, tablet and capsule form. Prerequisite: MATH-060 or appropriate score on math placement test. (2 hours weekly for 7 weeks)

# MATH-108 Business Math 3 Credits

In this course, students will develop skills in the practical applications of arithmetic and mathematical concepts appropriate to the various occupational programs in business. The student will develop the ability to work with percentages, proportions, ratios, tables, charts, graphs, and the scientific calculator, in the solution of business problems. The student will also be able to represent data by the use of basic statistical measures. This learning program will also acquaint students with some of the terminology of business and some of the ways in which they can benefit as consumers by an increased awareness of simple business mathematics. Prerequisite: MATH-061 or appropriate score on math placement test. (3 hours weekly)

# MATH-122 Ideas in Mathematics 3 Credits (Mathematics Core)

In this course students will develop the ability to reason with quantitative information, through the study of the principles of reasoning, number sense, probability and statistical reasoning, unit analysis and mathematical modeling. Students will acquire the specific background and critical thinking skills they need to understand the major issues they will face in life, both on a personal level and as citizens in a modern democracy. There will be an emphasis upon contemporary applications to various real-life problems. This course is intended for students who do not plan to major in mathematics or the sciences. Prerequisite: MATH-070 or appropriate score on math placement test. (3 hours weekly)

### MATH-124 Technical Math 4 Credits (Mathematics Core)

Students will develop skills dealing with functions and graphs, systems of linear equations, quadratic equations, vectors, exponents and radicals, complex numbers, and trigonometric, exponential and logarithmic functions. Problem solving using technology applications will be an integral part of the course. The use of a graphing calculator is required. Prerequisite: MATH-070 or appropriate score on math placement test. (4 hours weekly)

# MATH-127 Concepts of Mathematics I 4 Credits (Mathematics Core)

This course is primarily for students in the elementary education and early childhood education programs. Students will study the structural aspects of mathematics and the "why" of arithmetical computations. Topics include sets, functions, logic, numeration systems, algorithms and their historical development, estimation, mental computations, and elementary number theory. Special emphasis is given throughout the course to problem solving techniques. Appropriate use of computers and calculators will be integrated into the course. Prerequisite: MATH-070 or appropriate math placement score. (4 hours weekly)

# MATH- 128 Concepts of Mathematics II 4 Credits (Mathematics Core)

This course is the second course in a sequence intended primarily for students in the elementary and

early childhood education programs. Topics include statistics probability, metric and non-metric geometry, dimensional analysis, congruence and similarity, and coordinate and transformational geometry. Special emphasis is given throughout the course on problem-solving techniques including the appropriate use of calculators and computers. Prerequsite: MATH-070 or appropriate math placement score. (4 hours weekly) (Concepts I, II may be taken in either order but sequential order is recommended.)

# MATH-131 College Algebra 3 Credits (Mathematics Core)

In this course, students will develop additional skills in algebra and new skills in the complex number system. Non-linear inequalities, polynomials, logarithms, exponentials, functions and their inverses will be discussed. In addition, students will be able to graph both the basic and special math functions to include translation, reflection, etc. Students will also be able to find the roots of polynomial equations. Matrix algebra will be introduced to organize data and solve systems of equations. Modeling using data analysis will be an integral part of this course. The use of a graphing calculator is required. Prerequisite: MATH-070 or appropriate score on math placement test. (3 hours weekly)

# MATH-133 College Trigonometry 3 Credits (Mathematics Core)

In this course, the student will develop skills in the complex number system, solving systems of equations, trigonometry, and analytic geometry. Areas covered in trigonometry will be the basic definitions, reference angles, radian and degree measurement, the laws of sines and cosines, trigonometric identities, and the solution of trigonometric equations. Graphing will include trig and inverse trig functions which may have an amplitude, period and/or phase shift. Also included will be conics, series and sequences. The use of a graphing calculator will be required throughout the course. Prerequisite: MATH-131 or appropriate score on math placement test or equivalent. (3 hours weekly)

# MATH-135 Precalculus 5 Credits (Mathematics Core)

In this course, students will develop skills in the analysis and the synthesis of mathematical concepts and

procedures. The course will discuss the areas of inequalities, polynomials, logarithms, exponentials, trigonometrics and conics. The student will use the complex number system and the trigonometric form of complex numbers to solve truth sets and the cartesian coordinate system to graph relations and functions. In addition, non-linear systems of equations will be solved. Applications may include maximum and minimum problems and problems whose solutions require exponential and logarithmic equations. Exposure will be given to mathematical induction, the binomial theorem, series and sequences. The use of a graphing calculator will be required throughout the course. Not open to students who have completed MATH-131 or MATH-133. MATH-135 is equivalent to MATH-131 and MATH-133. Prerequisite: Appropriate score on math placement test. (5 hours weekly)

### MATH-138 Statistics 4 Credits (Mathematics Core)

In this course, students will develop the skills necessary to examine basic statistical terminology; develop pictorial and analytical distributions; and use statistics tables, a graphing calculator, and a computer to calculate measures of central location and measures of variation. The student will additionally examine the normal distribution, correlation, and regression analysis, sampling, testing hypotheses (including parametric and nonparametric methods), the chi square test, and probability related to statistics. Classes will require use of a statistical computational package such as Minitab and/or Excel. The use of a graphing calculator is required. Prerequisite MATH-070 or appropriate score on math placement. (4 hours weekly)

### MATH-140 Calculus I 4 Credits (Mathematics Core)

In this course, students will develop skills in the initial content of both differential and integral calculus. Students will be able to find limits of functions, be exposed to the epsilon-delta process, and learn about continuous and discontinuous functions. They will be able to find derivatives and integrals of polynomial, rational, radical, trigonometric, exponential and logarithmic functions. This includes the chain rule, the rules dealing with operations, and u-substitution for both definite and indefinite integrals. Applications dealing with

maximum, minimum, velocity, acceleration, cost and profit will be presented. Graphing (asymptotes, increasing, decreasing, concavity, maximum, minimum) will also be discussed. Theorems used in the class will include the mean-value theorem for derivatives and integrals, the squeeze theorem and the fundamental theorem of calculus. Implicit differentiation, differentials and summations of area will be used when appropriate. A graphing calculator is recommended. The use of a computer algebra system will be an integral part of the course. Prerequisite: MATH-135 or MATH-133 or equivalent. (4 hours weekly)

# MATH-145 Business Calculus 3 Credits (Mathematics Core)

In this course, students will develop skills in the initial content of both differential and integral calculus. Students will be able to find limits of functions and learn about continuous and discontinuous functions. They will be able to find derivatives and integral of polynomial, rational, radical, exponential, logarithmic and some special functions. They will use the chain rule and the rules dealing with operations in finding derivatives and u-substitution in finding definite and indefinite integrals. Applications dealing with optimization, related rate, revenue, cost, profit, supply and demand and areas will be presented. Graphing functions will be an integral part of the course and will contain a discussion of asymptotes, increasing, decreasing, concavity, maximum and minimum. Theorems will be used in the class to justify and explain the concepts. Some of the theorems may include the mean-value theorem for derivatives and integrals, and the fundamental theorems of calculus, Implicit differentiation and differentials will be used when appropriate. Students will use the computer algebra system, DERIVE, and/or spreadhseets to complete projects. Prerequisite: MATH-131 or equivalent. (3 hours weekly)

### MATH-150 Calculus II 4 Credits (Mathematics Core)

In this course, students will develop additional skills in calculus (see MATH-140 and MATH-240). Derivatives and integrals are extended to hyperbolics, inverse trig, inverse hyperbolics, and power series. Integration techniques taught include parts, partial fractions, trigonometric substitution and u-substitution. Limits are supplemented with L'Hopital's rule. Convergent and divergent integrals

are discussed in the class. Applications deal with area bounded by curves, work, volume by rotating and slicing, surface area, arc length, and force. Numerical techniques of integration are briefly discussed. Infinite series material covers both sequences and series, convergence and divergence of alternating, power, Taylor and MacLaurin series. In addition, it will include polar and parametric equations. A graphing calculator is recommended. The use of a computer algebra system will be an integral part of the course. Prerequisite: MATH-140 or equivalent. (4 hours weekly)

# MATH-186 Introductory Numerical Analysis 3 Credits (Mathematics Core)

In this course, students will develop skills necessary to design and implement algorithms to solve problems using digital computers. The FORTRAN or an equivalent language will be used to program solutions to these problems. Techniques will include data input and storage, selection of relevant numerical and non-numerical methods for problem solution, and the efficient ordering of data for meaningful output presentation. Some problems will be fundamental to engineering design, but non-engineers interested in numerical analysis methods along with the construction and description of effective procedures to solve the problem should gain knowledge which can be used in their respective fields of interest. Prerequisite: MATH-150 and CMSY-135 or equivalent. (2 hours lecture, 2 hours lab)

### MATH-200 Statistics 3 Credits (Mathematics Core)

In this course, students will develop the skills necessary to examine basic statistical terminology; develop pictorial and analytical distributions; and use statistics tables, a calculator and a computer to calculate measures of central location and measures of variation. The student will additionally examine the normal distribution, correlation, and regression analysis, sampling, testing hypotheses (including parametric and nonparametric methods), the chi square test, and probability related to statistics. The use of a graphing calculator is strongly recommended. Prerequisite: MATH-122 or higher. (3 hours weekly)

# MATH-220 Discrete Structures 3 Credits (Mathematics Core)

Upon completion of this course, students will develop skills in fundamental mathematical concepts related to computer science. The course will discuss the areas of finite and infinite sets, relations, functions, propositional logic, permutations, combinations, proof techniques, graphs, and trees with selected applications. Prerequisite: MATH-140 or equivalent. (3 hours weekly)

### MATH-240 Calculus III 4 Credits (Mathematics Core)

In this course, students will develop the skills necessary to conclude the calculus sequence. It contains vector calculus in both two and three dimensional space along with the classical theorems of Green, Stokes and Gauss. It will also include a discussion of partial derivatives and multiple integrals along with a number of appropriate applications. A graphing calculator is recommended. The use of a computer algebra system will be an integral part of the course. Prerequisite: MATH-150 or equivalent. (4 hours weekly)

### MATH-250 Linear Algebra 4 Credits (Mathematics Core)

In this course, students will develop skills in the basic concepts of linear algebra. These skills will cover areas such as vector spaces, applications to line and plane geometry, linear equations and matrices, similar matrices, linear transformations, eigenvalues, function spaces, determinants, and quadratic forms and complex vector spaces. The use of a computer algebra system will be an integral part of the course. Prerequisite: MATH-150 or equivalent. (4 hours weekly)

# MATH-260 Differential Equations 3 Credits (Mathematics Core)

In this course, students will develop the skills necessary to use the basic methods of solving differential equations. The student will be asked to solve linear and specific non-linear differential equations. The Laplace transform, power series solutions and undetermined coefficients will be included. Prerequisite: MATH-240 or equivalent. (3 hours weekly)

### **METEOROLOGY**

# METO-111 Meteorology 3 Credits (Science Core)

This course is designed as an introduction to the study of weather, climate and the atmosphere. Topics will include solar and terrestrial radiation, temperature and humidity, cloud formation, air pressure and winds, circulation and weather patterns, tornadoes, hurricanes, air pollution, and climatic change. (3 hours weekly)

### **MICROSOFT**

# MSFT-109 Web Site Fundamentals with Microsoft FrontPage 98

3 Credits

This course teaches new Web developers how to create static and dynamic hypertext markup language (HTML) pages. Students will learn basic Internet and intranet concepts. They will also learn about the technologies and Microsoft tools that enable Web development. Students will learn how to create Web documents by using the Microsoft FrontPage Web authorizing and management tool and by editing the HTML tags directly. Students will create HTML documents that contain forms, standard controls, ActiveX controls, Java applets, and client-side script. They will also learn how to use the dynamic HTML and data binding features supported by Microsoft Internet Explorer version 4.0. Finally, students will learn how to publish and test Web pages on a Web server. Prerequisite: CMSY-190. (3) hours lecture, 1 hour lab)

# MSFT-113 Microsoft Visual Basic 6 Development

3 Credits

This course teaches Microsoft Visual Basic programmers how to create database applications using components. Students are taught to write a Microsoft Visual Basic-based application that accesses data from a database; write a Visual Basic-based application that uses component object model (COM) components; create an ActiveX control; create a COM component; and list the opportunities that Visual Basic developers have to incorporate Internet technologies into their applications. Prerequisite: CMSY-190. (3 hours lecture, 1 hour lab)

### MSFT-117 Web Development Using Visual InterDev

#### 3 Credits

This course provides students with the knowlege and skills required to analyze, design, build, and implement Web-based solutions by using Microsoft Visual InterDev version 6.0. Prerequisite: CMST-190

# MSFT-156 Updating Microsoft Windows NT to Microsoft Windows 2000

#### 3 credits

This course will provide Microsoft Windows NT 4.0 support professionals with the knowledge and skills necessary to support Microsoft Windows 2000-based networks. content applies to Microsoft Windows 2000 Server, Microsoft Windows 2000 Advanced Server, and Microsoft Windows 2000 Professional. Prerequisite: MSFT-689. (3 hours lecture, I hour lab)

# MSFT-200 Microsoft Windows 2000 Professional

#### 3 credits

This course is designed to give students the knowledge and experience to install, configure and administer Microsoft Windows 2000 Professional. Prerequisite: CMSY-219. (3 hours lecture, 1 hour lab)

### MSFT-205 Microsoft Windows 2000 Server 3 credits

This course is designed to give students the knowledge and experience to install, configure and administer Microsoft Windows 2000 Server. Prerequisite: MSFT-200. (3 hours lecture, 1 hour lab)

# MSFT-210 Microsoft Windows 2000 Network Infrastructure

#### 3 credits

This course is designed to give students the knowledge and experience to install,, configure, manage and support a network infrastructure that uses the Microsoft Windows 2000 Server product. Prerequisite: MSFT-205. (3 hours lecture, 1 hours lab)

# MSFT-215 Microsoft Windows 2000 Active Directory Services

#### 3 credits

This course is designed to give students the knowledge an experience to install, configure and administer

Microsoft Windows 2000 Active Directory Services. Prerequisite: MSFT-210. (3 hours lecture, 1 hour lab)

### MSFT-230 Designing Microsoft Windows 2000 Active Directory Services

#### 3 credits

This course is designed to give students the ability to analyze the business requirements and design a directory service architecture, including: unified directory services such as Active Directory and Windows NT domains; connectivity between and within systems, system components, and applications; data replication such as directory replication and database replication. In addition, students will develop the skills required to analyze the business requirements for desktop management and design a solution for desktop management that meets business requirements. Prerequisite: MSFT-215 or MSFT-156. (3 hours lecture, 1 hour lab)

# MSFT-235 Designing Security for a Microsoft Windows 2000 Network

#### 3 credits

This course will give students the skills required to analyze the business requirements for security and design a security solution that meets business requirements. Security includes: Controlling access to resources, auditing access to resources, authentication, and encryption. Prerequisite: MSFT-215 or MSFT-156. (3 hours lecture, 1 hour lab)

#### MSFT-240 Designing Microsoft Windows 2000 Network Infrastructure 3 credits

This course will give students the skills required to analyze the business requirements for a network infrastructure and design a network infrastructure that meets business requirements. Network infrastructure elements include: network topology, routing, IP addressing, name resolution such as WINS and DNS, virtual private networks (VPNs), remote access, and telephony solutions. Prerequisite: MSFT-215 or MSFT-156. (3 hours lecture, 1 hour lab)

### MSFT-299 Fundamentals and Practice for Network+ Certification

#### 3 credits

This course is designed to give students the knowledge and experience to install and configure the TCP/IP

client, and design, install and configure computer networks. Prerequisite: CMSY-219. (3 hours lecture, 1 hour lab)

# MSFT-578 Networking Essentials 3 Credits

This course serves as a general introduction for students who need a foundation in current networking technology for local area networks (LANs), wide area networks (WANs), and the internet. Students will learn to identify the components of a LAN, distinguish network topologies, communication media, standards, protocols, resources, internet components, and operating system features, and learn to determine how to implement and support the major networking components. Prerequisite: CMSY-219 (3 hours weekly)

# MSFT-688 Internetworking Microsoft TCP/IP on MS Windows NT 4.0

#### 3 Credits

This course is intended for network integrators, system engineers, and support professionals who implement and support Transmission Control Protocol/Internet Protocol (TCP/IP) in local (LAN) and wide-area network (WAN) environments, and provides the student with the knowledge and skills required to install, configure, use, and support Microsoft TCP/IP on Microsoft Windows NT operating system version 4.0. Prerequisite: MSFT-687 or MSFT-922. (3 hours lecture, 1 hour lab)

# MSFT-689 Supporting Microsoft Windows NT 4.0 Enterprise

#### 3 Credits

This course provides the core foundation for supporting MS Windows NT 4.0 operating system in a complex environment such as capacity planning on a server and a network, multiple domain management, and trust relationships. Students should be familiar with NT 4.0 administration concepts, DOS, microcomputer concepts, and Windows 95. Prerequisite: MSFT-687 or MSFT-922. (3 hours lecture, 1 hour lab)

### MSFT-803 Administering Microsoft Windows NT 4.0

#### 3 Credits

This course teaches network administrators how to perform day-to-day administrative and maintenance tasks such as setting up and administering user and group accounts, securing network resources, setting up and administering network printers, auditing and monitoring network resources and events, and backing up and restoring data on a Windows NT 4.0-based network. Prerequisite: CMSY-219. (3 hours lecture, 1 hour lab)

#### MSFT-832 Updated System Administration for Microsoft SQL Server 7.0

#### 3 Credits

This course provides students with the knowledge and skills required to install, configure, administer and trouble-shoot Microsoft SQL Server client/server database management system version 7.0 Prerequisite: MSFT-687 or MSFT-659 or MSFT-922. (3 hours lecture, 1 hour lab)

# MSFT-833 Database Design with Microsoft SQL 7.0

#### 3 Credits

This course provides students with the knowledge and skills required to design and implement a database solution by using Microsoft SQL Server version 7.0. Prerequisite: MSFT-922. (3 hours lecture, 1 hour lab)

#### MSFT-922 Updated Supporting Microsoft Windows NT 4.0 Core Technologies 3 Credits

This course provides the core foundation for supporting Microsoft Windows NT operating system version 4.0. The goal of this course is to provide support professionals with the skills necessary to install, configure, customize, optimize, network, integrate, and troubleshoot Windows NT 4.0. Prerequisite: MSFT-803. (3 hours lecture, 1 hour lab)

#### MSFT-936 Creating and Managing a Web Server Using Microsoft Internet Information Server 4.0

#### 3 Credits

This course teaches students how to support the various features of Microsft Internet Information Server (IIS). Students will learn how to install, configure, and implement all components that comprise IIS. They will also have hands-on experience setting up a Web site. Prerequisite: MSFT-688 (3 hours lecture, 1 hour lab)

### MSFT-955 Updated Implementing and Supporting Microsoft Windows 98

#### 3 Credits

This course helps students gain the knowledge and skills needed to support Microsoft Windows 98. These skills include installation, configuration, customization, optimization, network integration, administration, trouble-shooting, messaging, and other support issues. Prerequisite: CMSY-219. (3 hours lecture, 1 hour lab)

# MSFT-956 Implementing Microsoft Internet Explorer

#### 3 Credits

This course provides students with a strong foundation in the architecture and key features of Microsoft Internet Explorer version 5.0. Information provided in this course enables students to set up, configure, use, and deploy Internet Explorer in a network environment—with particular emphasis on intranet use. Prerequisite: MSFT-922. (3 hours lecture, 1 hour lab)

# MSFT-973 Implementing and SupportingMicrosoft Exchange 5.5

#### 3 Credits

This course provides an introduction to the core technologies of Microsoft Exchange Server, preparing students to plan, implement and administer Microsoft Exchange in a single-site environment. Knowledge of the X.400 Messaging Standard and the X.500 Directory Service Standard is recommended. Prerequisite: MSFT-687 or MSFT-922. (3 hours lecture, 1 hour lab)

### **MUSIC**

### MUSC-100 Fundamentals of Music 3 Credits (Fine Arts/Humanities Core)

Open to all interested students, this class is an introduction to the concepts of reading and writing music. It is intended for the student with limited musical knowledge or background in music who wishes to study music theory, or for the student who wishes to learn to read music. Primary concepts of note reading, rhythm, scales, key signatures and intervals will be studied along with fundamental keyboard skills, simple melodic and rhythmic dictation and elementary sightreading. (3 hours weekly)

# MUSC-101 Music Appreciation 3 Credits (Fine Arts/Humanities Core)

Open to all interested students, this class provides an introduction to musical elements, forms and stylistic periods from the Middle Ages through the popular music of today. While concentrating primarily on Western Art Music and its representative composers, the course also touches on the increasing importance of different forms of popular music in the last century and its roots in various ethnic musical expression. Attention will also be given to historical events, sociological influences and encounters with non-European cultures within each historical period and their effect on musical development. This course is designed for the non-music major. (3 hours weekly)

# MUSC-102 A Survey of Music Literature 3 Credits (Fine Arts/Humanities Core)

This course is an in-depth study of the evolution of Western music through a chronological presentation of master composers and their works. Emphasis will be given to the study of musical form and analysis, recognition and identification of the characteristics of stylistic periods, as well as individual research concerning the cultural context of various compositions. This course is strongly recommended for the music major after completion of MUSC-110. (3 hours weekly)

# MUSC-103 The Business of Music 3 Credits

Open to all interested students, this course is designed to be an introductory study of the field of music as a continually changing and dynamic commercial profession. It is designed to aid the performer as well as the moonlighter and the music hobbyist in their interaction with the business of music. The student will explore various professions within the field of commercial music, basic copyright information, business and management practices as related to the Arts and occasionally interact with professionals and specialists in the field. (3 hours weekly)

# MUSC-107 American Popular Music 3 Credits

Open to all interested students, this course offers a panoramic view of the history of American popular music from the mid 1800's to the present. Upon comple-

tion of this course, the student will be able to identify and discuss each of the following aspects of American popular music: specific styles and style periods, pivotal compositions and composers, ethnic traditions which have been major contributors in the development and evolution of popular music, song forms and their contribution to style period development, influences on American history, and historical influences on popular music. (3 hours weekly)

# MUSC-108 African-American Music 3 Credits (Humanities Core)

Open to all interested students, this course will examine the heritage of African-American music from the colonial era through the jazz age to the present. Upon completion of this course, the student will be able to identify the characteristic elements of African music, trace the development of the major idioms such as religious and ragtime music, identify important African-American composers and performers, and articulate the role of African-American music in ritual and ceremony, as transmitter of culture and as a social and political tool. (3 hours weekly)

# MUSC-109 Techniques of Electronic and Computer Music

#### 3 Credits

This course will serve as an introduction to the techniques of electronic music production. Students will be exposed to the principles of sound synthesis with an emphasis on computer control via the Musical Digital Interface Standard (MIDI). Various software programs for the direct programming of synthesizers and sequencing of music will be utilized. Audio reproduction techniques will be employed by students in the realization of final projects. Each student will be required to spend at least two additional hours per week in the lab independently working on assigned projects. Prerequisite: MUSC-110.

#### MUSC-110 Music Theory I 4 Credits

Open to qualified students and required of music majors, Theory I is an introduction to the theory of music. It offers an integrated approach that combines written work, eartraining, knowledge of the keyboard, and sight singing. The student will develop knowledge and understanding of the fundamentals of music including musi-

cal acoustics, notation of rhythm and major and minor scales, form in melody, basic introduction to harmony, including intervals, chords and their inversions; the writing of four-part harmony; sight reading, melodic, harmonic, and rhythmic structures. Prerequisite: MUSC-100. (4 hours weekly plus additional independent lab time)

#### MUSC-111 Music Theory II 4 Credits

Second in the four-semester Music Theory sequence required of music majors, this course continues the integrated approach introduced in Theory I. Selected topics include functional harmony, harmonic spacing and doubling, chord connection, cadences, modulating, seventh chords, melody and bass writing. The practice of rhythmic, harmonic and melodic reading and dictation will be continued, along with sight singing. Prerequisite: MUSC-110. (4 hours weekly plus additional independent lab time)

# MUSC-112 Applied Music (Non-Music Majors) 2 Credits

Individual instruction for pre college or personal enrichment. (1 one-hour lesson per week)

### MUSC-113 Applied Music (Non-Music Majors) 1 Credit

Individual instruction for pre-college or personal enrichment. (1 half-hour lesson per week)

#### MUSC-117 Applied Music I 2 Credits

First semester of private college level music study. Required for music major. (1 one-hour lesson per week)

### MUSC-118 Applied Music II 2 Credits

Second semester of private college level music study. Required for music major. (1 one-hour lesson per week)

#### MUSC-119 Applied Music 1 Credit

First semester of private college level study. (1 half-hour lesson per week)

# MUSC-120 Applied Music 1 Credit

Second semester of private college level study. (1 half-hour lesson per week)

#### MUSC-130 Chorus (Major Ensemble) 1 Credit

Chorus is a vocal performing ensemble which will explore traditional and contemporary choral literature through the medium of performance. (3 hours weekly) (This course may be repeated for a total of four credits.)

### MUSC-140 Chamber Singers (Minor Ensemble) 1 Credit

Chamber Singers is a small vocal ensemble which performs traditional and contemporary small vocal ensemble literature. (2 hours weekly)

### MUSC-150 Jazz Ensemble (Major Ensemble) 1 Credit

Jazz Ensemble is a performance oriented course which will explore different styles of jazz, such as swing, bebop and fusion. (3 hours weekly)

### MUSC-170 Guitar Ensemble (Minor Ensemble) 1 Credit

Guitar Ensemble performs traditional and contemporary literature. (2 hours weekly)

### MUSC-180 Specialized Ensemble (Major) 1 Credit

Specialized ensembles will be created as need demands. (2 hours weekly)

#### MUSC-191 Class Voice I 2 Credits

Open to all interested students. Upon successful completion of this course, the student will have a basic understanding of the vocal function in singing. Equally important is the development of poise and self-confidence as a performer as well as overcoming symptoms of performance anxiety. The main activity of this course is the development of the singing voice through exercise and song. The skills acquired in the class will serve as a foundation for more in-depth vocal study on the private level. (2 hours weekly plus additional independent practice time)

### MUSC-192 Class Voice II 2 Credits

Class Voice II will be a continuation of Class Voice I. Prerequisite: MUSC-191. (2 hours weekly)

#### MUSC-193 Class Piano I 2 Credits

Open to all students, this course offers the student an opportunity to learn the basic principles of piano playing. Beginning with note reading, it progresses next to sight reading, technical exercises to aid in the development of skills used in the playing of the instrument, and ultimately, the addition of beginning piano repertoire. Small class size allows for individual attention and encourages independent progress. This class will also serve as a foundation for more in-depth study on the private level for those interested in pursuing further study. (3 hours weekly plus additional independent practice time)

#### MUSC-194 Class Piano II 2 Credits

Class Piano II will be a continuation of Class Piano I. Prerequisite: MUSC-193. (3 hours weekly)

### MUSC-195 Class Guitar I 2 Credits

Upon successful completion of this course, the student will have a fundamental understanding of the basics of music reading and guitar playing. The main focus is the discipline of classical guitar technique and style with emphasis on ensemble music reading and individual development. Some instruction will be offered in other styles of guitar music. This class will serve as a foundation for more in-depth study on the private level. (3 hours weekly plus additional independent practice time)

#### MUSC-196 Class Guitar II 2 Credits

This course is a continuation of Class Guitar I. Prerequisite: MUSC-195. (3 hours weekly)

# MUSC-210 Music Theory III 4 Credits

Third in the four-semester Music Theory sequence required of music majors, Theory III builds on the concepts of analysis and writing studied in MUSC 111. The student will develop knowledge and understanding of

advanced tonal analysis, altered nonharmonic tones and secondary dominants, augmented and Neapolitan sixth chords, foreign modulations and extended chords. The study of form will be continued through chosen examples. All facets of eartraining and sight singing will be continued. Prerequisite: MUSC-111. (4 hours weekly plus additional independent lab time)

#### MUSC-211 Music Theory IV 4 Credits

The final course in the four-semester Music Theory sequence, Theory IV continues the study of harmonic concepts pursued in MUSC-210. The student will develop further knowledge and understanding of foreign modulations, extended chords, chromaticism, non-diatonic music and form through the study of the music of late nineteenth and twentieth century. An introduction to late Renaissance polyphony and eighteenth century counterpoint will also be included. The practice of sight singing, rhythm reading and melodic dictation will be continued. Prerequisite: MUSC-210. (4 hours weekly plus additional independent lab time)

#### MUSC-217 Applied Music III 2 Credits

Third semester of individual college level music study. Required for music major. (1 one-hour lesson per week)

#### MUSC-218 Applied Music IV 2 Credits

Fourth semester of individual college level music study. Required for music major. (1 one-hour lesson per week)

### MUSC-219 Applied Music

1 Credit

Third semester of individual study program. (1 halfhour lesson per week)

### MUSC-220 Applied Music

1 Credit

Fourth semester of individual study program. (1 halfhour lesson per week)

#### NURSING

#### NURS-099 Transition into Nursing I 1 Credit

At the completion of this course the student will utilize major theoretical and clinical constructs required of a student in the Howard Community College Nursing Program. The course will focus on the framework of Responses to Stress and its application to written assignments, the approach to theory and to clinical functioning. Prerequisite: Acceptance into Nursing Program at a level higher than NURS-101.

### NURS-101 Introduction to Patient Needs and **Nursing Actions**

#### 7 Credits

The student will develop and attain attitudes, knowledge and skills, both interpersonal and psychomotor. which are necessary to assist the patient in meeting health care needs. The influence of the stress-adaptation process on basic needs and nursing care is emphasized. The student will provide safe nursing care relative to the basic health needs of a patient of any age group. Prerequisite: Formal admission into the Nursing Program. Pre- or co-requisite: HMDV-200. (4 hours theory, 9 hours lab)

### NURS-102 Nursing of Patients with Common **Responses to Stress**

#### 8 Credits

Students will develop those competencies required to administer safe, technical nursing care to patients of all ages who have common health problems. Through consideration of major categories of patient response to stress (immobility, obstruction, infection, bleeding, alteration in perception) the student will select general nursing actions pertinent to each of the responses. Prerequisite: NURS-101, HMDV-200, MATH-105 for PN students and MATH-122 or higher for RN students; Pre or Co-requisite: ENGL-101 or ENGL-111, PSYC-101 and BIOL-204. (4 hours theory, 12 hours lab)

#### NURS-103 Transition into Nursing II 5 Credits

At the completion of this course, students will be capable of applying theory to provide safe care for patients with common health problems. Selection of nursing

actions is directed at variations resulting from five major categories of patient responses to stress (immobility, obstruction, infection, bleeding and alterations in perception). Prerequisites: Admission into the LPN pathway and completion of BIOL-204, ENGL-101 or ENGL-111, HMDV-200, PSYC-101, and MATH-122 or higher. (3 hours theory, 6 hours lab)

#### NURS-104 Advanced Concepts in Practical Nursing

#### 6 Credits

This course will prepare the practical nurse student to provide direct and indirect nursing care for individuals of all ages experiencing more complex health care problems resulting from the major responses of stress: obstruction, immobility, infection, bleeding, and alteration in perception. The student will explore the role of the practical nurse in health care and utilize the phases of the nursing process to provide safe nursing care to a small group of patients. Experience in managing the care provided by auxiliary nursing personnel will be integrated into clinical assignments. Prerequisites: BIOL-204, PSYC-101, ENGL-101 or ENGL-111 and NURS-102. (3 hours theory, 9 hours lab)

#### NURS-110 Survival Tactics for Beginning Nursing Students 1 Credit

This is a one-credit course designed to enhance student performance and success in the first clinical nursing course. Enrollment is limited to those students accepted into NURS-101. This course will introduce students to study and test-taking skills, which enhance success in courses which test application of theory. In addition, students will receive instruction in stress and time management. Students will also be introduced to collaborative learning, which is used extensively in the nursing curriculum.

#### NURS-120 Introduction to Pharmacology 1 Credit

This course introduces the student to the important basic concepts of pharmacology. The focus will be the discussion of applications of drug therapy. (1 hour weekly)

### NURS-150 Basic Pharmacology 3 Credits

This course will increase your knowledge of pharmacology and pharmacodynamics. The focus will be on drug actions and their nursing implications. Prerequisite: NURS-101 (3 hours weekly)

# NURS-170 Nursing Co-Op Work Experience 3 Credits

See COOP-201-202 Cooperative Education Work Experience Land II

# NURS-201 Nursing of Patients with Complex Responses to Stress I

#### 9 Credits

Building on theoretical knowledge and clinical competencies from NU 101 and NU 102, the student will become more proficient in providing nursing care for patients experiencing complex, recurrent health problems. The nursing process and other curricular structures will help students to examine three types of responses to stress: immobility, obstruction and infection and related nursing interventions to meet the patient's needs. Through this course and NURS-202, the student will develop competencies necessary to administer safe nursing care at the associate degree level. Prerequisites: NURS-102 or 103, BIOL-204 and PSYC-101; Pre- or Corequisite: ENGL-102 and SOCI-101. (4 hours theory, 15 hours lab)

#### NURS-202 Nursing of Patients with Complex Responses to Stress II 9 Credits

At the completion of this course, students will be prepared to assume beginning roles as technical nurses in caring for patients experiencing complex health problems. Theoretical study and clinical application of knowledge will focus on patient needs and nursing actions resulting from the responses to stress: bleeding and alteration in perception. Students will demonstrate their ability to competently care for a small group of patients within the nursing care team. Prerequisite: NURS-201. (4 hours theory, 15 hours lab)

#### NURS-211 Enhancing Clinical Competence 1-2 Credits

The student will work as a member of a nursing team in association with a designated R.N. preceptor. Within

various shifts, the students will identify patients' responses to stress and factors which may affect differences. The nursing process will be used to determine appropriate nursing intervention with foci on organization and quality patient care. Increased understanding of the complexities of the clinical setting is expected as well as heightened levels of self-awareness and self-confidence. Prerequisite: Completion of NURS-201 within the past year. (3-6 hours lab)

### OFFICE TECHNOLOGY

#### OFFI-100 Office Machines 1 Credit

After successful completion of this course, the student will be able to use a business calculator with proficiency. The student will be able to add, subtract, multiply, divide, use whole numbers and fractions, do accumulative and constant multiplication and division, percentages, complements and chain discounts, gross and net profit, mark up, proration and interest problems. Emphasis is placed on the ability to take basic machine operations and apply them to practical business math problems. This course may be completed in fewer than 14 weeks and may be started at any time during the school year.)

# OFFI-101 Bookkeeping 3 Credits

After successful completion of this course, the student will be able to demonstrate an understanding of the sole proprietorship form of business organization through the completion of a practice set. Emphasis will be placed on bookkeeping procedures, payroll bookkeeping, receivables and payables, and financial statements. (3 hours weekly)

# OFFI-102 Editing Skills for Word Processors 3 Credits

After successful completion of this course, the student will improve his or her proofreading and spelling skills and develop a business vocabulary. This will include learning proofreading techniques and capitalization, grammar, punctuation, spelling, and word usage principles. An intensive study of spelling rules is included. This course does not take the place of an English course. It

is a review (brush-up) of previously acquired skills. This course may be completed in fewer than 14 weeks and may be started at any time during the school year. All of the work for this course (except tests) may be done outside of class. Prerequisite: OFFI-176.

### OFFI-171 Formatting Business Documents 2 Credits

After successful completion of this course, the student will be able to correctly type formal letters, tables, and reports. This course may be completed in fewer than 14 weeks and may be started at any time during the school year. Prerequisite: CMSY-102.

### OFFI-176 English for the Office Professional 3 Credits

After successful completion of this course, the student will be able to demonstrate an understanding of English. This includes correctly using all parts of speech and applying grammar and punctuation rules. (3 hours)

#### OFFI-191 Computerized Medical Billing 1 Credit

After successful completion of this course, the student will be able to use MediSoft software to enter patient databases and do patient and insurance billing, financial recordkeeping and appointment scheduling. This course may be completed in fewer than 14 weeks and may be started at any time during the school year. (3 hours weekly)

### OFFI-201 Office Technology Work Experience 3 or 4 Credits

See COOP-201 Cooperative Education Work Experience I

### OFFI-272 Transcription Skills for Word Processors

#### 2 Credits

After successful completion of this course, the student will be able to transcribe material from prerecorded dictation. This course may be completed in fewer than 14 weeks and may be started at any time during the school year. Approximately 50% of the work for this course may be done outside of class if the student has compatible word processing software. Prerequisites: CMSY-102 and OFFI-176.

### OFFI-275 Office Simulation 3 Credits

After successful completion of this course, the student will be able to use Microsoft Office software to complete an office simulation project. This will include setting priorities, organizing tasks, and problem solving. This course may be completed in fewer than 14 weeks and may be started at any time during the school year. All work for this course may be done outside of class. Prerequisites: CMSY-101, CMSY-103, CMSY-104, CMSY-116, and CMSY-126.

#### OFFI-279 Keyboarding 1 Credit

After successful completion of this course, the student will be able to touch type and use correct keyboard technique. Speed and accuracy development are stressed. This course may be completed in fewer than 14 weeks and may be started at any time during the school year. All work for this course may be done outside of class on any compatible computer.

### OFFI-280 Legal Transcription and Terminology 3 Credits

After successful completion of this course, the student will be able to transcribe legal material from prerecorded dictation. Also included is an overview of legal procedures and an in-depth study of terminology. This course may be completed in fewer than 14 weeks and may be started at any time during the school year. Approximately 50% of the work for this course may be done outside of class if the student has compatible word processing software. Prerequisites: OFFI-281.

### OFFI-281 Legal Document Preparation 2 Credits

After successful completion of this course, the student will be able to prepare various legal forms and documents using Microsoft Word. Included is an introduction to legal terminology and procedures. This course may be completed in fewer than 14 weeks and may be started at any time during the school year. All of the work for this course (except tests) may be done outside of class if the student has compatible word processing software. Prerequisite: CMSY-104.

#### OFFI-285 Legal Office Simulation 3 Credits

After successful completion of this course, the student will be able to demonstrate proficiency in general office procedures including telephone technique, postal services, work priority schedules and planning meetings and travel arrangements. The student will be able to keep client financial records and appointment schedules, explain the purpose of various legal documents, and prepare them with little assistance. This course may be completed in fewer than 14 weeks and may be started at any time during the school year. All of the work for this course (except tests) may be done outside of class. Prerequisies: OFFI-281, CMSY-101, CMSY-103, CMSY-104, CMSY-116, and CMSY-126.

## OFFI-290 Medical Terminology 2 Credits

After successful completion of this course, the student will be able to spell and define medical prefixes, suffixes, and terminology peculiar to various medical specialties. This course may be completed in fewer than 14 weeks and may be started at any time during the school year. All of the work for this course (except tests) may be done outside of class.

### OFFI-293 Beginning Medical Transcription 3 Credits

After successful completion of this course, the student will be able to transcribe medical material from prerecorded, dictated material using a cassette transcribing machine. This course may be completed in fewer than 14 weeks and may be started at any time during the school year. If the student has access to compatible word processing software, about 50% of the work may be done outside of class. Prerequisites: CMSY-102 and OFFI-290.

#### OFFI-295 Medical Office Simulation 3 Credits

After successful completion of this course, the student will be able to handle patient reception, keep an appointment schedule, handle the mail, use the telephone efficiently and properly, maintain the financial records for a medical office, plan meetings and travel arrangements, and order supplies for a medical office. Microsoft Office and MediSoft skills will be used to prepare docu-

ments. This course may be completed in fewer than 14 weeks and may be started at any time during the school year. All work for this course (except tests) may be done outside of class. Prerequisites: CMSY-102, OFFI-191 and OFFI-293.

## OFFI-297 Advanced Medical Transcription 2 Credits

After successful completion of this course, the student will be able to transcribe medical reports from prerecorded dictation that includes background noises and dictation from doctors with accents. In addition to broadening the student's experience with transcribing, the student's knowledge of vocabulary in 15 medical specialties will be enhanced. This course may be completed in fewer than 14 weeks and may be started at any time during the school year. Prerequisite: OFFI-293.

## **PHILOSOPHY**

## PHIL-101 Introduction to Philosophy 3 Credits (Humanities Core)

An introduction to world philosophy which begins with the western tradition and includes Asian and African philosophies as well as the voices of women philosophers and the peoples of the Americas. Focus is on major theories of reality (metaphysics), knowledge (epistemology), value (axiology), and logic. Eligible to enroll in ENGL-101 or ENGL-111 (3 hours weekly)

## PHIL-103 Introduction to Ethics 3 Credits (Humanities Core)

Upon completion of this course students will be familiar with most important ethical theories of Western philosophy. Students will have the necessary tools to discuss and evaluate various contemporary moral issues, as well as a moral ethical stance. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111. (3 hours weekly)

## PHIL-110 Introduction to Chinese Taoism 1 Credit

An interdisciplinary introduction to Chinese Taoism, using the methods and categories of philosophy but including the historical and cultural milieu of China, traditional Chinese landscape painting as expressive of Taoist philosophy and an examination of the wisdom

tests Tao Te Ching and Chuang-tzu. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111. (1 hour weekly)

## PHIL-111 Introduction to Japanese Zen Buddhism

#### 1 Credit

An interdisciplinary introduction to Japanese Zen Buddhism, using the categories and methods of philosophy but including the historical and cultural milieu of Japan, Zen painting, haiku, and sand gardens, and ancient, medieval, and modern Zen wisdom texts from around the world. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111. (1 hour weekly)

## PHIL-112 Introduction to African Philosophy 1 Credit

An interdisciplinary introduction to African philosophy using the categories and methods of Western philosophy but including the historical and cultural milieu of Africa as well as African visual arts and proverbs, African drumming, dance, and song as repositories of and ways to express African philosophy. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111. (1 hour weekly).

## PHIL-201 Religions of the World 3 Credits (Humanities Core)

A study of the major religions of the world with emphasis on their origins, development, and significance in the modern world as well as their sacred texts. Focus is on Hinduism, Buddhism, Confucianism, Taoism, Judiaism, Christianity, and Islam. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111. (3 hours weekly)

## PHIL-202 Logic and Critical Thinking 3 Credits (Humanities Core)

Students will examine the principles of logic with the purpose of developing an ability to think critically, reason clearly and use language precisely. Primary emphasis will be placed on the practical applications of logic in the experimental sciences as well as in the examination and evaluation of information obtained through newspapers and books, advertising, political campaigns, television and other media. Prerequisite: ENGL-101 or ENGL-111. (3 hours weekly)

## **PHOTOGRAPHY (See ART)**

### **PHYSICS**

Also see listings in Astronomy and Geology.

## PHYS-100 Technical Physics 4 Credits (Science Core)

Technical Physics is a course designed for two-year technology majors such as BMET, Cardiovascular, Computer Support, Electronics, Telecommunications Technology, etc., to meet their basic physical science requirement. It consists of an integrated sequence of physical and chemical (both inorganic and organic) principles relating to living and non-living systems. This course will enable the student to become aware of, to identify, and to evaluate situations and/or problems in contemporary physical science which include: basic chemical and physical principles with some application to the human body: properties and states of matter: science measurement and dimensional analysis techniques. Special emphasis is placed upon learning physics principles and solving mathematical problems in motion, vectors, force, momentum, work and energy, fluids, heat, basic electricity, waves, magnetism, light and optics, and the atom. The laboratory program will allow the student to develop an understanding of the fundamental principles of the above mentioned areas, including problem solving, and their application to physical phenomenon observed. Pre- or co-requisite: MATH-124. (3 hours lecture, 3 hours lab)

#### PHYS-101 Technical Physical Science 4 Credits

This Technical Physics course is designed to prepare students in the Accelerated Cardiovascular Program for Hospital Trainees for the CV Basic Science Exam. It consists of basic scientific math and an integrated sequence of physical and chemical principles. This course will enable the student to become aware of, to identify, and to evaluate situations and/or problems in contemorary physical science which include: basic chemical and physical principles with applications to the human body; properties and states of matter; science measurement and dimensional plus statistical analysis techniques.

Special emphasis is placed upon learning physics principes and solving mathematical problems in density/specific gravity, gas laws, solutions, pressure, work and energy, fluids, basic electricity, waves, sound, magnetism, and the atom. The laboratory program will allow the student to develop an understanding of the fundamental principles of the above mentioned areas, including problem solving, and their application to physical phenomenon observed. Prerequisite: MATH-061. (3 hours lecture, 3 hours lab)

#### PHYS-103 Fundamentals of Physics I 4 Credits (Science Core)

Physics 103, a course designed mainly for science majors and pre-professional students, will enable the student to solve problems involving the major concepts in physics to include measurement: vector concepts; forces; mechanics (both statics and dynamics); fluids; heat concepts; and some thermodynamics. The students will develop the ability to interpret and apply the experimental laws and fundamental principles of physics to describe the behavior of the physical world. In the laboratory program, the student will develop the ability to appraise, use, and interpret data collected (often by MBL) to express mathematically and/or explain the physical phenomena observed. Pre- or Co-requisite: MATH-133 or equivalent. (3 hours lecture, 3 hours lab)

### PHYS-104 Fundamentals of Physics II 4 Credits (Science Core)

Physics 104, a course designed mainly for science majors and preprofessional students, will enable the student to solve problems involving the major concepts in physics to include wave motion, sound, electrostatics, electric currents, circuits, electronics, magnetism, electromagnetic interactions, nature and properties of light, optics, and some modern physics. The student will develop the ability to interpret and apply the experimental laws and fundamental principles of physics to describe the behavior of the physical world. In the laboratory program, the student will develop the ability to appraise, use and interpret data collected (often by MBL) to express mathematically and/or explain the physical phenomena observed. Prerequisite: MATH-133 and PHYS-103. (3 hours lecture, 3 hours lab)

## PHYS-105 Introduction to Physical Science 3 Credits (Science Core)

PHYS-105 is a course designed for the non-science major outside the allied health area. The student will become knowledgeable of the contributions of physics and chemistry to man's understanding of basic physical science concepts and will expose the student to the basic scientific vocabulary in these sciences. The course emphasis is on the basic scientific principles and their applications in today's society. Basic math skills will be used to illustrate some of these principles. Prerequisite: Eligible to enroll in MATH-070. (3 hours weekly)

#### PHYS-110 General Physics I (Calculus) 4 Credits (Science Core)

General Physics 110 is the first semester of a threesemester calculus-based physics course mainly for physics, physical science, engineering and related science maiors. The course will enable the student to solve problems, using calculus methods when applicable, for the major concepts in physics to include: measurement; vector concepts; laws of motion, force, energy; principles of mechanics and statics; linear momentum; rotation; and fluid statics and dynamics. The student will develop the ability to interpret and apply the experimental laws and fundamental principles of physics to describe the behavior of the physical world. In the laboratory program, the student will develop the ability to appraise, use, and interpret data collected (often by MBL) to express mathematically and/or explain the physical phenomena observed. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111; Pre- or Co-requisite: MATH-140. (3 hours lecture, 3 hours lab)

#### PHYS-111 General Physics II (Calculus) 4 Credits (Science Core)

General Physics 111 is the second semester of a three-semester calculus-based physics course. The course will enable the student to solve problems, using calculus methods when applicable, for the major concepts in physics to include: oscillatory motion; wave motion; sound; electrostatics; DC and AC circuits; magnetism; and electro-magnetic interactions. The student will develop the ability to interpret and apply the experimental laws and fundamental principles of physics to describe the behavior of the physical world. In the laboratory program, the student will develop the ability to ap-

praise, use and interpret data collected (often by MBL) to express mathematically and/or explain the physical phenomena observed. Prerequisite: PHYS-110; eligible to enroll in ENGL-101 or ENGL-111; Pre- or Co-requisite: MATH-150. (3 hours lecture, 3 hours lab)

## PHYS-112 General Physics III (Calculus) 3 Credits

General Physics 112 is the final semester of a threesemester calculus-based physics course. The course will enable the student to solve problems, using calculus methods when applicable, for the major concepts in physics to include: heat; kinetic theory; thermodynamics; advanced electromagnetic wave theory including Maxwell's Equations; geometric and some physical optics; special theory of relativity; and topics in modern physics. In the laboratory/recitation program, the student will develop the ability to appraise, use and interpret data collected to express mathematically and/or explain the physical phenomena involved. Prerequisite: MATH-150 and PHYS-111, and eligible to enroll in ENGL-101 or ENGL-111. (2 hours lecture, 3 hours lab)

#### PHYS-115 Introduction to Physical Science Lab 1 Credit (Science Core)

PHYS-115 is the laboratory option of PHYS-105, Introduction to Physical Science. In this course, students will develop skill with equipment, laboratory techniques and procedures, plus laboratory investigative skills to solve physics and chemistry-related problems. The lab emphasis is on the application of basic physical science principles in studying and solving practical problems plus operation of basic equipment, e.g., motors, etc. The use of mathematics is held to a minimum. Prerequisite: Eligible to enroll in MATH-070. Pre- or corequisite: PHYS-105. (3 hours lab)

## **PLANT SCIENCE**

## PLSC-101 Introduction to Horticulture 4 Credits

Introduction to Horticulture is an introductory course which provides a broad spectrum of topics in the field of plant science. Specific topics covered are: plant structures, classification, soils, plant growth and development, propagation, pesticides, insects, diseases and plant

protection. The course's objective is to make the students well-rounded in all aspects of plant science and prepare them for future classes of a more specific nature in the curriculum. This course is geared for commercial horticulture workers as well as for the homeowner. The subject matter is covered scientifically and practically so that the student can put into practice what is learned. (3 hours lecture, 3 hours lab)

## PLSC-102 Annuals and Perennials 3 Credits

Annuals and Perennials is designed for the student who is working or who wants to work in the plant science industry as well as for the home owner who takes a special interest in plants and the landscape. It is designed to provide the student with a working knowledge of herbaceous plants, their identification, maintenance and culture and proper use in the landscape. In addition, propagation and marketing techniques will be identified. Prerequisite: PLSC-101. (2 hours lecture, 2 hours lab)

## PLSC-103 Pest and Disease Control 3 Credits

Entomology and plant disease control is a basic course for plant science majors. It provides the basic understanding of insects and diseases that attack ornamental plant materials and turf grasses. Details of the nature and structure of insects, effects of insect destruction and insect classification are major components. Plant diseases, weed identification and respective controls are also discussed as they apply to trees, shrubs, herbaceous plants, roses and turf. Prerequisite: PLSC-101. (2 hours lecture, 2 hours lab)

## PLSC-105 Woody Plants 3 Credits

Woody Plants is an introductory course for nursery and landscape purposes and also covers plants founds in arboretums, forests and fields in various regions of the United States. The purpose is to provide a practical understanding of woody plant characteristics so students can relate knowledge taught to the field of ornamental horticulture. A study of plant taxonomy, groupings, plant material terminology and data and an introduction to plant ecology constitute course topics. Prerequisite: PLSC-101. (2 hours lecture, 2 hours lab)

#### PLSC-106 Landscape Design and Contracting 3 Credits

In this course, the student will be introduced to the art, aesthetics and science of residential and commercial landscape design and contracting. In addition, the student will be able to proceed with a design plan and install a proper soil, grasses, plant materials, shrubs and structures that will be manageable and lasting. The student will also be introduced into legal responsibilities and cost estimation relative to landscape contracting. (2 hours lecture, 2 hours lab)

## PLSC-107 Landscape and Grounds Management

#### 3 Credits

The student should be able to develop a complete grounds management program which will include equipment, supplies, manpower, scheduling and costs. Emphasis will be placed on care and cultural practices of trees, shrubs and other plants; professional maintenance, amenities and selection of equipment. Economical maintenance and improvement of site installations will be stressed. Typical tasks include care of plants, shrubs and equipment on both public and private property. (2 hours lecture, 2 hours lab)

## PLSC-108 Turf Grass Management 3 Credits

This course involves the management of turf grasses for both landscape and recreational uses. At the end of the course, the student should have a working knowledge of grass varieties and their uses; use of a key in plant grass identification; growth requirements, including temperature, fertilizers, irrigation and drainage; pest identification and control including fungi, nematodes, insects and weeds; cultivation (planting and mowing), thatch management and auxiliary practices, sod establishment; and golf course practices. (2 hours lecture, 2 hours lab)

## PLSC-201 Plant Science Work Experience 3-4 Credits

See COOP-201-202 Cooperative Education Work Experience I and II.

## **POLITICAL SCIENCE**

### POLI-101 American Federal Government 3 Credits (Social and Behavioral Sciences Core)

The student will evaluate and critically analyze the following areas of American Government: first, the origins, principles and interpretation of the American Constitution including the tensions between federalism and nationalism; secondly, politics and the people: public opinion, political parties, elections and interest groups; thirdly, the institutions of government which include the presidency, congress, judiciary and federal bureaucracy; fourthly, issues in public policy including economic policy, foreign policy and social issues such as crime, energy, obscenity, and affirmative action. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111. (3 hours weekly)

## POLI-102 State and Local Government 3 Credits

The student will evaluate, debate, and critically analyze the public policies which emerge from the political processes of state and local government by examining the following: (1) the constraints on state and local governments in making and implementing policy; (2) the policy roles of the legislative, executive, judicial, and administrative branches; (3) the successes and failures of state and local governments in dealing with the following public policy areas - criminal justice, welfare, education, housing, transportation, and the environment; (4) the role of citizen influence on public policy and an examination of some alternatives to the conventional channels of state and local government. Prerequisite: Eligible to enroll in ENGL-101 or EG111. (3 hours weekly)

## POLI-201 Comparative Government 3 Credits

The student will be able to compare and contrast the political, military, social, and economic characteristics of governments in three different environments. They are: nations in transition (developing Third World States to be selected in class); countries in a western democratic setting (United States, Britain and France) and post Cold War communist governments. The student will also be able to examine and evaluate modern political thought and ideologies such as rational phi-

losophies; liberal and conservative doctrines; socialistic and Marxist ideologies; Fascism, anarchism, terrorism and nationalism. Prerequisite: ENGL-101 or ENGL-111. (3 hours weekly)

### **PSYCHOLOGY**

#### PSYC-101 General Psychology 3 Credits (Social and Behavioral Sciences Core)

Through this introduction to the field of psychology, the student will be able to describe how psychologists do their research and gain an appreciation of how psychologists view people through studying the views of Freud, Skinner, and Maslow. The student will be able to summarize, interpret and evaluate psychological information, especially as it appears in films and non-technical articles. Upon completion of this course, the student will be able to describe psychological concepts and facts on the major topics of psychology. Pre- or Corequisite: ENGL-101 or ENGL-111. (3 hours weekly)

## PSYC-102 Advanced General Psychology 3 Credits

After studying the topics of abnormal psychology, learning, psychological research methods, intelligence, social psychology, and aggression, the student will be able to objectively describe behavior, distinguish between normal and abnormal behavior, apply basic learning concepts and principles, critically evaluate secondary psychological sources, write a psychological research paper, identify important issues and problems concerning research, describe research on a variety of psychological topics and critique an article on a current social issue. This course is designed primarily for persons who are interested in taking additional psychology courses or wish an introduction to scientific psychology. Students may proceed through this course at their own pace. Prerequisite: PSYC-101. (3 hours weekly)

## PSYC-202 Social Psychology 3 Credits

In addition to understanding and applying major concepts, facts, principles, and theories of social psychology, the student will be able to interpret, analyze and critically evaluate social psychological materials. The

student will be able to explain the important research on these topics: T-groups, conformity, obedience, attraction, attitude change, cognitive dissonance, prejudice, and aggression. Students will study several social psychological topics of their own choosing. Prerequisite: PSYC-101. (3 hours weekly)

## PSYC-203 Abnormal Psychology 3 Credits

Through this introduction to the field of abnormal psychology, the student will be able to describe both historical and current issues involved with defining and recognizing mental illness, to describe the causes of mental illness, to compare and contrast the major treatments of mental illness, and to describe some of the ways to prevent mental illness. In addition, the student will learn to be more critical of abnormal psychology information as found in the mass media. Prerequisite: PSYC-101. (3 hours weekly)

## PSYC-204 Adolescent Psychology 3 Credits

This course is a description of adolescent development based on research and theory interrelating physical, psychological, intellectual and social changes during the teen years and the systems dealing with those changes. This course meets the Maryland State Department of Education Adolescent Development requirement for an initial certificate in Secondary Education. This course also meets the MSDE Human Growth and Development requirement for an initial certificate in Generic Special Education Elementary/Middle and Generic Special Education Secondary/Adult. Prerequisite: PSYC-101. (3 hours weekly)

## **RETAILING**

#### RETL-103 Retail Merchandising 3 Credits

Through lectures, class group work, and outside reading, students will learn something of the development of retailing and the major components of a functioning retail establishment. These include the physical facility, the selection and promotion of merchandise, the people involved in retailing, and the future of retailing. (3 hours weekly)

#### RETL-105 Fashion Merchandising 3 Credits

Through this course students will learn some of the fundamentals of fashion theory and consumer demands, with emphasis on how these apply to the merchandising and retailing of fashion goods. Through class projects, students will engage in analyzing merchandising plans, store images, promotions and retail management philosophies. Students will also have the opportunity throughout the course to examine career opportunities in retailing/merchandising. (3 hours weekly)

## RETL-201-202 Retail Work Experience I and II 3 or 4 Credits

See COOP-201-202 Cooperative Education Work Experience Land II.

### RUSSIAN

### RUSS-101 Elementary Russian 4 Credits (Humanities Core)

As a result of taking this course the student will be able to utilize the basic elements of the Russian language, which will include reading Russian with acceptable pronunciation, writing Russian words and phrases in script, speaking Russian to include making statements and answering simple Russian statements. Throughout these experiences, the student will utilize correct cases, conjugations and declensions in forming Russian sentences. Instruction focuses on oral communication, and is supported by a computerized classroom and conversation specialists. This course meets for 4 hours per week; students meet with their instructor in a computerized classroom for 3 hours per week; the fourth hour is reserved for individual computerized practice and conversation groups.

### RUSS-102 Elementary Russian II 4 Credits (Humanities Core)

This course is a continuation of first-semester Russian. Upon completion, the student will be able to use Russian when speaking about everyday topics and will be able to read and understand texts of average difficulty. Greater concentration will be placed on speaking in complete sentences and on grammatical usage, especially compound sentences, adjectives, and cases.

Instruction focuses on oral communication, and is supported by a computerized classroom and conversation specialists. This course meets for 4 hours per week; students meet with their instructor in a computerized classroom for 3 hours per week; the fourth hour is reserved for individual computerized practice and conversation groups.

### **SCIENCE**

See Astronomy, Geology and Meteorology

### **SOCIOLOGY**

#### SOCI-101 Introduction to Sociology 3 Credits (Social and Behavioral Sciences Core)

Through this introduction to sociology, the student will develop an understanding of the basic concepts of sociology including culture, socialization, social stratification and social change and be able to apply these concepts to social problems and everyday life experiences. Students will be exposed to sociological information and ideas which will help them understand and clarify their own norms, values and attitudes. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111. (3 hours weekly)

### SOCI-102 Social Problems 3 credits (Social and Behavioral Sciences Core)

The general objective of this course is to give students a broad overview of contemporary problems both in America and around the world. This course will analyze social problems, both internationally and here in the United States using various sociological perspectives. We will use the tools of sociology – its analytical insights, its theoretical frameworks, and its methods to ask questions about what constitutes a social problem, when does a social condition become problematic, who are advocating which strategies for solutions or social change. We will focus on three general classes of social problems: problems of social inequality and conflict, problems arising within specific social institutions (family life, education, crime, and health care),

and problems arising from social change (environmental crises, population growth, and social upheaval). In each case, we will study what is known: (1) about the problem and recent trends therein, (2) its causes and consequences, and (3) individual and societal responses to the phenomenon. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111. (3 hours weekly)

## SOCI-103 Marriage and the Family 3 Credits

Marriage and the Family will introduce the student to the sociological study of the family. In part one of the course, we will examine the American family in historical and cross-cultural perspective, and in the process achieve a clearer understanding of what the family is and how it has changed. Part two will examine the various paths to family formation and the responsibilities and expectations we have as family members. In part three we will shift focus to the larger social forces that shape families and the implications this has for a social policy of the family. Finally we will turn to the stresses the contemporary family endures and the possibilities this holds for the future of the family. Prerequisite: ENGL-101 or ENGL-111 (3 hours weekly)

## SOCI-110 Human Sexuality 3 Credits

Through this introduction to the field of human sexuality, the student will be able to recall and describe historical and current research knowledge related to physiological, psychological, anthropological, and sociological aspects of human sexuality across the life span. Students will discuss and evaluate their own beliefs and values relevant to the topics of various types of sexual behavior, sexual problems and their treatments. In addition, the student will be able to describe important legal and ethical sexual issues. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111. (3 hours weekly)

#### SOCI-111 Introduction to Women's Studies: Women, Gender and Society 3 credits (Interdisciplinary and Emerging Issues Core)

An interdisciplinary study of the construction of gender and its intersection with race and class in the United States. Based primarily in the social sciences and social history, this course also draws on the arts, media, and

popular culture in examining the impact of gender on society. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111. (3 hours weekly) NOTE: Also listed as WMST-111.

## SOCI-201 Minorities in American Society 3 Credits

Minorities in American Society will introduce students to a sociological investigation of the racial, ethnic and gender stratification system found in the United States. This course will introduce the student to concepts essential to the sociological analysis of the American stratification system such as prejudice, discrimination, minority, race, ethnicity and gender. This course will examine the historical process through which the American racial and ethnic stratification system was socially constructed, and it will examine the various theoretical perspectives that have emerged in the attempt to understand this historical process. It will also teach the student to apply these concepts and theories to an analysis of contemporary social problems and to his or her everyday life experiences. The student will be exposed to sociological information and ideas that will help him or her to understand and to critically analyze the world we live in. Prerequisite: ENGL-101 or ENGL-111 (3 hours weekly)

## SOCI-202 Urban Sociology 3 Credits

Urban Sociology is a lecture and discussion course in which the student will analyze the social relationships of man in his urban environment. The student will examine the way in which spacial and physical dimensions of urban areas have been shaped; describe the various life styles of urbanized man; analyze the growth, development and planning of suburbs and new towns; and examine a number of social problems facing urban America including effective government, zoning and land use, housing, education, urban planning and crime. Prerequisite: ENGL-101 or ENGL-111. (3 hours weekly)

## **SPANISH**

#### SPAN-100 Cultures of Latin America 1 Credit

Spanish 100 is a one-credit course offered in English for those who are interested in the various cultures of Latin.

America. This course is organized around a variety of themes which touch upon all of the countries of Central and South America. The themes are explored and discussed from both present and past perspectives. (1 hour weekly)

#### SPAN-101 Elementary Spanish I 4 Credits (Humanities Core)

In this introductory course, students learn to listen, speak, write and read on a basic level. They also learn about the diverse cultures of the Spanish-speaking world. Instruction focuses on oral communication, and is supported by a computerized classroom and peer learning groups. This course meets for 4 hours per week; students meet with their instructor in a computerized classroom for 3 hours per week; the fourth hour is reserved for individual computerized practice and conversation groups.

### SPAN-102 Elementary Spanish II 4 Credits (Humanities Core)

Students continue to develop the four basic skills, particularly oral communication, and to look inside the cultures of Spain, the Caribbean and Latin America. They will develop a project which reflects personal goals for learning Spanish. Instruction focuses on oral communication, and is supported by a computerized classroom and conversation specialists. This course meets for 4 hours per week; students meet with their instructor in a computerized classroom for 3 hours per week; the fourth hour is reserved for individual computerized practice and conversation groups.

### SPAN-201 Intermediate Spanish I 4 Credits (Humanities Core)

Students in this second year course will use the skills needed to listen, speak, write and read in Spanish in the context of a series of communicative activities. They will expand their knowledge of the peoples of the Spanish-speaking world and will, through the use of multimedia technology, create a personalized project reflective of individual interests in Spanish. Instruction focuses on oral communication, and is supported by a computerized classroom and conversation specialists. This course meets for 4 hours per week; students meet with their instructor in a computerized classroom for 3 hours per week; the fourth hour is reserved for individual computerized practice and conversation groups.

### SPAN-202 Intermediate Spanish II 4 Credits (Humanities Core)

This final course of the 4 semester sequence fulfills the language requirement at most four-year institutions. Students will produce a mini-project in each of the four skill areas as they acquire the basics of intermediate Spanish. Instruction focuses on oral communication, and is supported by a computerized classroom and conversation specialists. This course meets for 4 hours per week; students meet with their instructor in a computerized classroom for 3 hours per week; the fourth hour is reserved for individual computerized practice and conversation groups.

## **SPEECH**

## SPCH-105 Fundamentals of Public Speaking 3 Credits (Humanities Core)

Students will gain skill in public speaking and overcome visible nervousness when speaking in front of an audience. Students will learn how to structure informative and persuasive messages for the maximum effect and will experience using audio-visual aids effectively. Students will practice critical listening in learning to evaluate the content, delivery and style of speeches. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111. (3 hours weekly)

## SPCH-110 Interpersonal Communication 3 Credits (Humanities Core)

Students will learn basic theories of oral communication, studying the types of verbal exchanges each of us has every day. The course begins with an overview of the human use of communication, including perception (with emphasis on inter-gender and intercultural communication), listening, verbal and non-verbal language, and sending and receiving feedback. Students will practice communication skills in pairs and write extensively about their experiences. When a student's curriculum requires HMDV-100, it should be completed before this course is taken. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111. (3 hours weekly)

### **SMALLTALK**

### SMAL-300 Fundamentals of Object Oriented Design Using Smalltalk 2 Credits

The student will use a Smalltalk learning laboratory environment to master the conceptual elements of the object oriented approach. The concepts and vocabulary behind the syntax of Smalltalk are covered. Students will study object oriented analysis and object oriented design methods and tools as well as alternate development cycle time lines. Concepts of abstraction, encapsulation, polymorphism, and inheritance will be studied. Programming exercises will reinforce the object oriented methodology and concepts.

## SMAL-305 Introduction to Smalltalk Development

#### 2 Credits

The student will be introduced to the VisualWorks Smalltalk environment including class browsers, debugger, user interface editor, class and method editors, and work spaces. Students will learn Smalltalk syntax. Students will use VisualWorks to write simple programs, then debug and execute them. Hands-on exercises will address the VisualWorks development environment and tools. Prerequisite: SMAL-300. (3 hours lecture, 1 hour lab)

## SMAL-310 Advanced Smalltalk Development 2 Credits

The student will build on knowledge gained in SMAL-305, "Introduction to Smalltalk Development," by extensively exploring the VisualWorks class library, creating new classes and methods, developing more robust user applications, learning the model-view-controller approach, user interface creation, and work with real world problems such as modeling a small LAN. Extensive handson exercises are assigned in all aspects of VisualWorks. Prerequisite: SMAL-305.

### SMAL-315 Relational Databases in Smalltalk Applications

#### 2 Credits

The student will use a relational database to form data models for various Smalltalk projects. In laboratory exercises, students will work with small to intermediate sized real world problems, transaction oriented applica-

tions and creation of a database in which to access information. Database interfaces, persistent storage, and record locking issues will be studied. Version management tools to support team development will be studied and the ParcPlace ENVY will be used in the exercises as an example. Distribution of business logic, database storage, and client/server configuration issues will be examined. Prerequisite: SMAL-310.

#### SMAL-320 Object Oriented Databases in Smalltalk Applications 2 Credits

The student will be introduced to concepts of designing and using object oriented databases. In laboratory exercises, the student will write and execute Smalltalk applications to exercise and extend their object oriented database skills. A popular object oriented database environment will be used. Comparison of the use and performance of object oriented databases versus relational databases will be made. Prerequisite: SMAL-310.

## **THEATRE**

## THET-131 Theatre Appreciation 3 Credits (Fine Arts, Humanities Core)

This course is designed to help students not majoring in theatre develop an appreciation of the art form by understanding the relationship of theatre to society and diverse cultures. Students become familiar with components of stage art including play-writing, acting, directing, and design through practical experiences and viewing of live productions and films. Students will be prepared for greater enjoyment of theatre by developing a more critical eye for the many facets of the art form. (3 hours weekly)

## THET-135 Stagecraft 3 Credits

This course will train the student in construction techniques and painting of theatrical scenery and properties. Safe operation of power tools and back stage machinery are also covered. (4 hours weekly)

## THET-136 Lighting I 3 Credits

The purpose of this course is to enable students to safely work with basic stage lighting equipment. This will include working with electrical wiring, hand and power tools, stage lights and dimmer boards. (4 hours weekly)

#### THET-137 Sound I 3 Credits

The purpose of this class is to enable students to safely work with basic sound equipment for the stage. This will include working with microphones, amplifiers, mixers, tape decks and equalizers. (4 hours weekly)

## THET-141 Basic Acting I 3 Credits (Fine Arts, Humanities Core)

This course will include a brief survey of theatre concepts and terminology. The student will develop acting skills and techniques including oral communication, improvisation and stage movement. The student will participate in brief dramatic presentations. (3 hours weekly)

## THET-142 Basic Acting II 3 Credits

This course is a continuation of THET-141 with an emphasis on character development, stage movement and direction, and the integration of physical and verbal stage presentations. Emphasis will be placed on the development of at least two contrasting monologues which could be used by the student in future audition situations (at college, community or professional levels). The course will include basic character work, script analysis, vocal production and improvisation in conjunction with each monologue. Prerequisite: THET-141. (3 hours weekly)

## THET-150 Oral Interpretation 3 Credits

The course will focus on methods of analyzing prose, poetry, dramatic literature, and children's literature for the purpose of performing literary selections orally. The emphasis will be upon communicating the beauty, meaning and emotional impact to others. Especially recommended for all public performers, education, English and recreation majors. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111. (3 hours weekly)

#### THET-160, 161, 162, 163 Theatre Practicum 1 Credit

Students will practice their knowledge and skills in designated areas of theatre production. Hands-on experience with different phases of production is the method of instruction. Students will concentrate their efforts in one of the following areas - lighting, sound, set construction, costuming, theatre management, stage management, directing, props, or acting. Acting is by audition only. The student may take theatre practicum four times for credit. Each registration should be for the next numbered course. Prerequisite: consent of instructor required. (2-3 hours weekly)

#### THET-190 Theatre History I 3 credits (Fine Arts/Humanities Core)

A study of the evolution of theatre from primitive origins through Greek and Roman traditions, the medieval worlds of England and Japan, The Renaissance through Romanticism, examining Elizabeth and Jacobean drama, Restoration and Neo-Classical traditions, as well as the 17th and 19th century Italian, German, French, Spanish, and early American Theatre. Emphasis is on the play in performance reflecting the changing physical theatre, as well as the social, political, and artistic currents of each period. (3 hours weekly)

#### THET-191 Theatre History II 3 credits (Fine Arts/Humanities Core)

A study of the evolution of theatre from the development of Realism in the late 19th century through the Theatre of the Absurd in the 1960s examining Naturalism, Idealism, Symbolism, Expressionism, and Surrealism, continuing to the highly diversified contemporary theatre from the 1960s to the present, examining Off and Off-Off Broadway, regional theatres, black theatre, feminist theatre, the Living Theatre, the Polish Laboratory Theatre, the Open Theatre, environmental theatre, and postmodernism. Emphasis is on the play in performance reflecting the changing physical theatre, as well as the social, political, and artistic currents of the period. (3 hours weekly)

#### THET-241 Acting for Television 3 Credits

This class will prepare students to present themselves in a professional manner in any of the mass media. Voice, appearance, movement and the technical aspects of the mass media performance will be covered through comprehensive exercises and on-camera evaluation. Prerequisite: THET-141. (4 hours weekly)

### **WOMEN'S STUDIES**

#### WMST-111 Introduction to Women's Studies: Women, Gender and Society 3 credits (Interdisciplinary and Emerging Issues Core)

An interdisciplinary study of the construction of gender and its intersection with race and class in the United States. Based primarily in the social sciences and social history, this also draws on the arts, media, and popular culture in examining the impact of gender on society. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111. (3 hours weekly) NOTE: Also listed as SOCI-111.

### WMST-150 Women's Health 3 credits (Interdisciplinary and Emerging Issues Core)

This course will introduce students to a variety of women's health issues as well as the barriers faced by women striving to achieve a healthful lifestyle. Students will examine topics including: female sexual health and reproduction, exercise and eating behaviors, substance abuse, mental health and stress, and violence against women. This course is designed to support students in their personal exploration of attitudes, knowledge and values related to women's health and to assist them as they analyze their personal health behaviors. (3 hours weekly) NOTE: Also listed as HEED-150.

## WMST-193 Introduction to Women's Studies: Women, Art, and Culture

### 3 credits (Fine Arts/Humanities Core)

An introduction to the ideas and issues central to Women's Studies and feminism with emphasis on women's art and culture. The course will examine how women have been represented and how gender has been constructed in the dominant culture as well as the role of the arts and of women themselves in developing an alternative women's culture. Prerequisite: Eligible to enroll in ENGL-101 or ENGL-111. (3 hours weekly) NOTE: Also listed as FINE-193.

## WMST-212 By and About Women 3 Credits (Humanities Core)

This course provides a historical sampling of literature written by and about females. Through group discussion, students will critically evaluate a series of six novels for literary form and technique. Class discussion will also analyze the validity of the female experience as portrayed in the literature. Students are expected to gain insight into not only the challenges but also the power of women in literature and in life. Prerequisite: ENGL-101 or ENGL-111. (3 hours weekly) NOTE: Also listed as ENGL-212.

## WMST-225 Women in American History: ColonialTimes to 1880

3 credits (Interdisciplinary and Emerging Issues Core)

An in-depth study of the lives and experiences of American women from the early seventeenth century to 1880. This course examines three major cultures—native, African and European as they met and mixed in colonial America with particular attention to women's experience in this cultural mixing. Focus will be on wealthy merchant families, slave holding planter families, indentured servants, slaves, factory workers, and immigrants and will include women's relationships with husbands, children and other women. Prerequisite: ENGL-101 or ENGL-111 (3 hours weekly) NOTE: Also listed as HIST-225.

## WMST-227 Women in American History: 1880 to the Present

## 3 Credits (Interdisciplinary and Emerging Issues Core)

An in-depth study of the lives and experiences of American women from diverse racial and ethnic groups from 1880 to the present. This course examines the experiences of women in the modern world from the end of the nineteenth century through the twentieth. Focus will be on the varying experiences of reformers, workers, organizers, and immigrants with particular attention to differences between married and single women and between those living in the cities and those living in rural areas. During this time period, women have gained the legal right to vote and run for office, regulate the size of their families, and receive equal pay for equal work. And yet women retain primary responsibility for housekeeping and child care. This course considers

the roots of some of these contradictions. Prerequisite: ENGL-101 or ENGL-111. (3 hours weekly) NOTE: Also listed as HIST-227.

## WMST-228 Women in European History: 1750 to the Present

## 3 Credits (Interdisciplinary and Emerging Issues Core)

This course analyzes women's changing economic, family, and political roles from the eighteenth to the twentieth century. Topics include the effects of industrialization on women's work and status, the demographic revolution, and women's political activities in market riots, revolutions, and campaigns for women's rights. Prerequisite: ENGL-101 or ENGL-111. (3 hours weekly) NOTE: Also listed as HIST-228.

# College Staff

(Date after name indicates year of initial employment at Howard Community College)

### **ADMINISTRATIVE STAFF**

#### Mary Ellen F. Duncan (1998)

B.S., St. John's University; M.A., Ph.D., University of Connecticut

President

#### Lynn C. Coleman, CPA (1986)

B.S., Michigan State University; M.B.A., Clark Atlanta University

Vice President of Administration and Finance

#### Thomas J. Glaser (2000)

A.A.S., Alfred State College; B.S., Empire State College; M.S., Syracuse University *Chief Information Technology Officer* 

## Kathleen B. Hetherington (1999)

A.S., Community College of Philadelphia; B.S.S., Pennsylvania State University; M.S., Villanova University; Ed.D., Widener University *Vice President of Student Services* 

## Ronald X. Roberson (1989)

B.A., Morgan State University; M.F.A., Maryland Institute, College of Art

Vice President of Academic Affairs; Professor, Art

## Randall R. Bengfort (1989)

B.S., B.A., Iowa State University *Director, Public Relations and Marketing* 

## Rachel L. Brinkley (1995)

B.S., San Jose State University

Director, Financial Aid and Veterans' Affairs

#### Judith C. Bulliner (2000)

A.A., Anne Arundel Community College; B.A., University of Maine; M.S., Johns Hopkins University *Director of Records & Registration* 

#### David A. Buonora (2000)

B.A., The American University; M.P.A., George Mason University

Director of Legislative Relations & Business Development

#### Patricia N. Cosgrove (1988)

Assistant Registrar

B.A., College of Notre Dame of Maryland

#### Janet L. Cullison, CPA (1983)

A.A., Howard Community College; B.A., University of Maryland; M.B.A., Johns Hopkins University *Director, Finance* 

### Linda E. Emmerich (1999)

Executive Associate to the President A.A., Catonsville Community College; A.B., Goucher College; M.S., Johns Hopkins University

#### Lucy K. Gardner (1986)

B.A., Edge Cliff College; M.L.S., University of Pittsburgh

Director of the Teaching and Learning Services
Division

### Barbara C. Greenfeld (1984)

B.S., University of Maryland; M.S., Johns Hopkins University

Director, Admissions and Advising

#### JoAnn D. Hawkins (1982)

B.J., University of Texas; M.A., University of Southern California; Certified Program Planner (CPP)

Associate Vice President, Division of Continuing

Education and Workforce Development

#### Michael G. Heinmuller (1996)

U.N.D., Rets Technical Center Supervisor, User & Network Services

#### Quentin L. Kardos (1972)

B.F.A., Rochester Institute of Technology; M.S., Northern Illinois University *Director, Audiovisual Services* 

#### Patricia M. Keeton (1983)

B.S., University of Maryland; M.S., Johns Hopkins University

Executive Director, Workforce Development

### Janice L. Marks (1986)

B.A., University of Maryland; M.A., Bowie State University; National Certified Counselor; Maryland Certified Professional Counselor *Director, Academic Support & Career Services* 

### Melissa L. Mattey (1981)

B.A., University of Maryland Baltimore County *Director, Alumni & Special Events* 

### Melanie R. McElvany (1998)

B.B.A., Loyola College

Director, Administrative Information Services

### Jack R. McVeigh (1990)

A.A., Dundalk Community College *Director, Plant Operations* 

#### Margaret M. Mohler (1977)

B.S., R.N., Mount St. Agnes College; M.S., University of Maryland; Ph.D., The American University *Director of Grants and Grants Management* 

#### Warren Morris, Jr. (1994)

Director, Security Services

#### Susan K. Radcliffe (1981)

B.A., Upsala College; M.A., University of Maryland; Senior Professional in Human Resources (SPHR) Director, Human Resources

#### Robin T. Saunders (1991)

B.A., The Catholic University of America; M.S., Johns Hopkins University Director of Student Life

#### Diane E. Schumacher (1999)

B.S., Springfield College; M.Ed., Temple University *Director. Athletics* 

#### Nancy L. Smith (1995)

A.A., Villa Julie College Executive Director, Development

#### I. Ardell Terry (2000)

B.S., Towson University; M.S., Johns Hopkins University

Executive Associate to the President for Capital Campaign

#### Arla J. Webb (1977)

Director of Auxiliary Services

# PROFESSIONAL/TECHNICAL STAFF

#### Elizabeth T. Alexander (1986)

B.A., University of Wisconsin; M.Ed., University of Virginia; Ed.D., Pennsylvania State University; Certified Program Planner (CPP)

Coordinator, Career Programs/Professional Development

#### William D. Allen (1997)

B.S., Towson University; M.Ed., Coppin State College *Transfer Counselor* 

#### Deborah A. Bauley (1996)

B.A., College of William and Mary; M.Ed., Virginia Polytechnic and State University Admissions Counselor

#### Sara M. Baum (1984)

B.S., University of Nebraska at Omaha; M.L.S., University of Maryland; Certified Program Planner (CPP)

Continuing Education Coordinator

#### Daryl H. Beard (1988)

Audiovisual Technology Specialist

#### Kathryn L. Bestany (1980)

B.A., Emmanual College; M.Ed., University of Massachusetts, Boston *Public Relations Assistant* 

#### Susan L. Boswell (1996)

Gateway Campus Administrator

#### Sharon A. Bouman (1998)

B.S., Indiana University of Pennsylvania; M.A., University of Maryland Business Training Contracts Specialist

#### Jamie Braman (1999)

A.A., Palm Beach Junior College Computer/Network Support Technician

### Jane H. Brown (1994)

B.A., Villanova University; M.A., University of North Carolina, Chapel Hill Assistant Director, Admissions (Allied Health)

#### Bernice K. Brunton (1995)

Executive Assistant I

#### Debra Y. Butler (1999)

B.A., Goucher College Senior Programmer/Analyst

#### Kasi S. Campbell (1984)

B.S., Indiana University of P.A.; M.A., University of Connecticut

Arts & Humanities and Rep Stage General Manager

#### Marjorie A. Cangiano (1989)

B.A., Bowling Green State University Continuing Education Specialist

#### Richard M. Chapman (1989)

A.A., United States Navy Supervisory Lab Tech - Electronics High Tech

#### Elzbieta Ciborowska (1999)

M.A., University of Warsaw; M.L.S., University of Pittsburgh

Librarian, Circulation

#### Frederica A. Coffey (1984)

B.A., Mt. Holyoke College Testing Specialist

#### Gisela Coley (1986)

A.A., Howard Community College Customer Accounts Analyst

#### Dennis L. Collier (1986)

Lead Engineer

#### Margaret P. Cullison (1999)

Development Data Assistant

#### Hildegard Deatherage (1982)

Office Supervisor

#### Sandra K. DeLaney (1999)

B.A., University of Colorado at Boulder Grants Program & Budget Assistant

#### Harsha G. Desai (1988)

A.A., Lincoln Land Community College Programmer/Analyst

#### Nicholas C. DeYoung (1996)

A.A.S., Howard Community College; B.S., Florida State University Interim Coordinator, Academic Computer Support

#### Alaka S. Dharmadhikari (1986)

M.S., Bhopal University Accounts Receivable, Cash & Collections Supervisor

#### Bonnie Dunn (1988)

B.S., M.Ed., University of Maryland College Park Office Supervisor

#### Minh Duong (1999)

Computer/Network Support Technician

#### Cindy V. Durham (1998)

A.A., Essex Community College; B.S., University of **Baltimore** 

Executive Assistant I

#### Mary K. Edion (2000)

B.S., M.S.W., West Virginia University Career Links Program Coordinator

#### Adam Elkassem (2000)

A.A., University of Hanssan II of Arts & Literature Computer/Network Support Technician

#### Marilyn L. Estes (1988)

A.A., South Central Community College; B.S., Southern Connecticut State University, M.A., University of Connecticut; Certified Program Planner (CPP) Manager, Career Programs and Community Development

#### Karen M. Evans (1979)

B.F.A., Maryland Institute, College of Art *Instructional Technologist/Graphics Designer* 

#### Roxanne C. Farrar (1990)

B.F.A., Southern Methodist University; M.S., Southern Illinois University; Certified Program Planner (CPP) *Continuing Education Specialist* 

#### Kathy B. Fisher (1992)

A.A., Howard Community College; B.S., Towson University

Supervisory Lab Technician-Physical Sciences

#### Jean M. Frank (1989)

B.S., University of Maryland; M.S., Johns Hopkins University

Senior Research Analyst

### Crystal S. French (1996)

A.A., Prince George's Community College; B.S. University of Maryland College Park *Computer/Network Support Technician* 

#### Mary K. Fuller (1980)

Office Supervisor

#### Alexander A. Garcia (1997)

Computer/Network Support Technician

### Wanda W. Garcia (1994)

A.A., Howard Community College Help Desk Administrator/Assistant Webmaster

#### Margaret H. Garroway (1991)

B.A., State University of New York at Binghamton; M.Ed., Northeastern University Assistant Director of Academic Support Services

#### E. Dean Gentry, Jr. (1991)

B.S., University of Baltimore Contract Administrator

#### Willie J. Gibson (1997)

A.A., Miami Dade Community College; B.S., University of Florida

Telecommunications Technician

#### Noreen T. Golden (1995)

Administrative Office Associate

#### Sarah N. Greer (1999)

B.S., University of Richmond *Payroll Supervisor* 

### Farida P. Guzdar (1989)

B.A., University of Calcutta

Acting Executive Assistant to the President

### Giles L. Harney (1997)

Computer/Network Support Specialist

#### Lori A. Hartley (1998)

B.A., Dickinson College; M.A., University of Maryland College Park

Admissions Counselor

#### Sharon A. Heckler (1985)

Benefits Administrator

#### Linda E. Heinbauch (1977)

Office Supervisor

#### Errick M. Henlon (1992)

Facilities Technician

#### Michele A. Henninger (1987)

A.A., Catonsville Community College *Financial Aid Counselor* 

### Karen D. Hinds (1992)

B.A., University of Delaware; M.A., Towson University *Producer/Director* 

#### Robert L. Hite (1998)

A.A., Howard Community College *System/Database Administrator* 

#### Thelma R. Holbrook (1985)

Supervisor, Print Shop

#### Anthony J. Hoos (1995)

A.A.S., Howard Community College; B.A., Pennsylvania State University *TV Production Specialist* 

#### Lucy H. Hunter (1983)

B.S. Northwestern University; M.S. Johns Hopkins University *Reading Specialist/Advisor* 

#### Michelle D. Jackson (1999)

B.A., California State University; B.S., University of Maryland University College Coordinator, Administration and Finance

### Jacqueline L. Jenkins (1997)

B.A., Pennsylvania State University *Research Analyst* 

#### Beverly H. Johnson (1993)

B.A., University of Pennsylvania; M.A., Columbia University

Coordinator, Computer and Advanced Technology

#### Kathleen M. Jones (1990)

R.N., St. Francis Hospital School of Nursing; B.S.Ed., California State University; M.S., University of Maryland at Baltimore

Coordinator, Professional Nursing and Allied Health

#### Cheryl-Anne M. Juba (1999)

A.A.S., Catonsville Community College *Network Engineer* 

#### Margaret J. Kahlor (1992)

A.A., Howard Community College; B.A., University of Maryland Baltimore County; M.A., American University *Producer/Director* 

#### Sivakumar Kareesan (1996)

B.S., New College; M.S., New York Institute of Technology

Database Administrator

#### Linda L. Kazanow (1999)

A.A.S., Howard Community College *Programmer* 

#### Vera Keiner (1997)

A.A., Howard Community College; B.A., University of Illinois at Chicago Supervisory Lab Tech-Biological Sciences

#### Kathleen M. Kersheskey (1988)

A.A., Howard Community College; B.S., University of Maryland; M.S. Johns Hopkins University *Job Assistant/Co-op Specialist* 

### Joan B. King (1994)

B.A., Swarthmore College; M.S.W., University of Pennsylvania

\*\*Assistant Director/Counselor. SSS\*\*

#### Elaine Kirkpatrick (1992)

A.A., Anne Arundel Community College Assistant Payroll Supervisor

#### Jeanette Kissel (1994)

A.A., Howard Community College; B.S., Towson University Academic Advisor

### Julie E. Knox-Brown (1987)

B.S., Morgan State University; M.Ed., University of Cincinnati Assistant Director, Advising

#### John F. Kvach (1997)

B.A., M.A., West Virginia University
Acting Assistant Director, Admissions (Outreach and International Admissions)

#### James O. Lash (1999)

Facilities Project Manager

#### Sandy S. Lee (1999)

B.A., M.Ed., University of California, Los Angeles Acting Admissions & Recruitment Counselor

#### Sung H. Lee (1995)

Interim Director, Academic Computer Support

#### Becky G. Lessey (1993)

B.S., University of Illinois; M.Ed., University of Maryland

Coordinator of Adult Basic Skills

#### Michele A. Lewis (1999)

B.S., Towson University; M.A., University of Maryland Job Assistance Coordinator/Career Specialist

#### Barbara B. Livieratos (1987)

B.S., Castleton State College; M.A., University of Maryland

Assistant Director, Research & Planning

#### Portia N. Logan (1991)

B.S., Mississippi University for Women *Compensation & HR Technology Manager* 

### Diane M. Loiselle (1997)

B.A., M.L.S., University of Maryland *Coordinator of Test Center* 

#### Brenda A. Lorick (1991)

B.S., Morgan State University; M.A., St. John's College; M.Ed., Howard University; Ed.D., Texas A & M University Coordinator of Retention

#### Linda L. Lowery (1983)

R.N., Saint Agnes School of Nursing *Textbook Manager* 

#### Jamie A. Lowthert (1997)

B.A., Bloomsburg University; M.S., University of Kentucky

Assistant Director, Financial Aid & Veterans' Affairs

#### Patricia A. MacTaggart (1991)

B.S., University of Maryland Baltimore County *Program and Budget Assistant* 

#### Cheryl A. Magill (1989)

B.S., Towson University TV Studio Manager and Executive Producer, HCC TV

#### Michael A. Malloy (1996)

A.A., Community College of Baltimore Computer/Network Support Specialist

#### Robert R. Marietta (1980)

B.A., Eckerd College; M.F.A., George Washington University

Arts & Humanities and Rep Stage Company Production Manager

#### Regina G. McClune (1996)

R.N., Saint Joseph's Hospital, School of Nursing; B.S., Towson University Nursing Lab Manager

#### Sherry McCray (1997)

B.A., University of Virginia *Technology Program Administrator* 

#### Kathleen VI. IVL Sweeney (1998)

B.A., Boston College, M.A., George Washington University *Disability Counselor* 

#### Jacqueline M. Miles (1978)

Coordinator of Recruitment, Employment & Classification

### Mary Ann Miller (1985)

Office Supervisor

#### Christine M. Morris (1998)

B.A., Furman University; M.A., Ph.D., University of North Carolina Business Training Contracts Specialist

#### Stephen P. Musselman (1985)

B.S., Frostburg State University *Life Fitness Center Manager* 

#### Mary E. Newberger (1986)

A.A., Catonsville Community College; B.A., College of Notre Dame of Maryland Computer/Network Support Technician

#### Cheryl D. Nitz (1996)

R.N., B.S., University of Maryland Health Sciences Lab Assistant

#### Donna M. O'Brien (1983)

Accounts Payable Supervisor

## Patricia L. O'Rafferty (1987)

BTC Project and Budget Assistant

### Rafael C. Ortiz (1996)

A.A., Howard Community College; A.A.S., Canal Zone College; B.S., Niagara Falls University; M.S., University of Northern Colorado; M.A., Webster University *Manager, Computer Lab Consultants & Administrative Assistants* 

#### James R. Otterbein (1999)

B.A., University of Maryland, Baltimore County *Financial Aid Counselor* 

#### PeterW.Phelps(1995)

B.S., M.E., Ohio University; M.B.A., Loyola College; Certified Netware Engineer (CNE)

Network Administrator

#### Kimberley J. Pins (1999)

B.S., M.S. Iowa State University *Director, Child Care Center* 

### Dorothy B. Plantz (1979)

B.A., State University of New York; M.A., Michigan State University

Acting Director, Advising (Transfer)

#### Josephine A. Polcari (1997)

B.A., Mercy College Assistant to the Registrar

#### Richard W. Pollard (1996)

A.A., B.A., Saint Leo College Director, Student Services Information Systems

#### Rosemarie Presley (1989)

Office Supervisor

#### Rebecca C. Price (1989)

B.A., Kansas State University; M.A., San Jose State University ESL Specialist

#### Sean E. Pringle (1990)

Arts & Humanities Technician

#### M. Suzanne Probst (1994)

A.A., Catonsville Community College *Graphic Artist* 

#### Cheryl M. Reynolds (1984)

A.A., Howard Community College *Financial Aid Specialist* 

#### James F. Robbins (1984)

A.A., Howard Community College, B.S., University of Maryland *Admissions & Academic Advisor* 

**Ricardo S. Sanchez (2000)**B.S., Salem College; M.B.A., Western State Connecticut University

Weekend Engineer

#### LindaSchnapp(1992)

B.A., M.A., Brooklyn College; M.Ed., Ph.D., University of Maryland *Coordinator, Project Access* 

#### Marla J. Schreck (1994)

B.A., Washington State University; Certified Program Planner (CPP)

Continuing Education Specialist

#### Katherine M. Seagroves (1999)

B.S., North Carolina Wesleyan College; M.S., Middle Tennessee State University

Life Fitness Center Technician

### Brian A. Shaner (1999)

B.S., Towson University Programmer Analyst

#### Anjna Sharma (1998)

A.A., Howard Community College; A.A.S., B.S., B.Ed., M.A., Panjabi University *Programmer* 

#### Frances P. Shellenberger (1990)

B.S., James Madison University Academic Advisor

#### Virginia H. Shenk (1988)

B.S., Pennsylvania State University Learning Assistance Center Math Specialist

#### Jane F. Small (1995)

B.A., Stonehill College *Transcript Evaluator* 

### Edward L. Smith (1978)

Chief of Housekeeping Services

#### Michael A. Smith (1977)

Engineer

#### Valerie T. Smith (1996)

A.A., Essex Community College *Network Administrator* 

#### Charles F. Smithson, II (1995)

B.S., B.S., Towson University *Development Assistant* 

#### RonaldSomervell(1986)

B.B.A., Spicer Memorial College; M.Com., University of Pune

Assistant Director, Finance

#### Jean A. Soto (1971)

B.A., University of Maryland Baltimore County *Librarian, Reference* 

#### Roger F. Stott (1999)

B.A., University of the South; M.P.A., University of Maryland

Lab Technical Support Coordinator

#### Martha Sunderland (1994)

B.S. University of Maryland Accounting & Auditing Analyst

### DeAnna G. Thomas (1999)

B.B.A., Eastern Kentucky University *Human Resources Consultant* 

#### Judy A. Thomas (1987)

A.A., Potomac State College; B.S., University of Maryland; Certified Program Planner (CPP) Continuing Education Operations Analyst

#### Melissa L. Van Meter (2000)

B.S., Towson University *Recruitment & Employment Associate* 

#### Marie J. Westhaver (1996)

B.A., University of Maryland, Baltimore County; M.A., University of Baltimore *Webmaster* 

#### Sam Wijegunawardena (1999)

B.S., University of Maryland College Park Senior Programmer/Analyst

#### Michelle Renee Wilson (1988)

Office Supervisor

#### Linda C. Wu (1999)

B.S., University of Maryland Senior Programmer/Analyst

#### Carolyn A. Wuyts (1994)

A.A., Camplain College; A.A., Brookdale College Graphic Designer/Materials Production Specialist

#### **FACULTY**

#### James A. Adkins (1999)

B.A., M.A., University of Maryland; M.F.A., Maryland Institute College of Art

Assistant Professor, Art; Director of Visual Arts

#### Kristi A. Aho (1999)

B.S., University of Maryland University College *Instructor, Computer Systems* 

### Margaret R. Armitage (1976)

A.B., The Catholic University of America; M.S., St. Bonaventure University; National Certified Counselor (N.C.C.)

Professor, Psychology

#### Gabriel B. Ayine (1995)

B.S., University of Cape Coast; M.Phil., University of Ghana

Assistant Professor, Mathematics

#### Russell L. Baker (1991)

B.S., M.S., Fredonia State College *Associate Professor, Mathematics* 

#### Sandra A. Balcer (1982)

B.S., M.S., University of Baltimore, C.P.A. *Professor, Accounting* 

#### Susan R. Bard (1971)

A.B., Goucher College; M.S., University of Maryland *Professor, Biology* 

#### Dawn C. Barnes (1989)

B.A., University of Michigan; M.A., University of New York/Hunter College; Ph.D., University of Maryland Associate Professor, Arts & Humanities; Artistic Director, Aurora Dance Company; Resident Choreographer, Rep Stage

### James E. Bell (1971)

A.B., Ph.D., University of Minnesota *Professor, Psychology* 

#### CherylL.Berman(1987)

B.A., M.A., University of Maryland Assistant Professor, Foreign Languages

### John Bouman (1983)

B.A., Indiana University of Pennsylvania; M.A., University of Maryland *Professor, Economics* 

#### William Brown (1994)

B.S., Morgan State University; M.A., Ph.D., Johns Hopkins University *Associate Professor, Chemistry* 

#### Andrew A. Bulleri (1971)

B.S.E., M.S.E., University of Michigan *Professor, Mathematics* 

#### Guy G. Bunyard (1993)

B.S., Stanford University; M.A., California State University, Long Beach, Associate Professor. Mathematics

#### **Angel C. Burba (1999)**

B.S., B.S., M.S., University of Maryland Baltimore County; Certificate: Public Policy Administration Assistant Professor, Emergency Medical Services – Paramedic

#### Georgene A. Butler (1992)

B.S.N., University of Maryland School of Nursing; M.S., University of Maryland Associate Professor, Nursing

#### William Campas (1986)

B.S.E.E., M.S.E.E., Johns Hopkins University; M.B.A., Fairleigh Dickinson University

Associate Professor, Engineering

#### Jerrold I. Casway (1971)

B.A., M.A., Temple University; Ph.D., University of Maryland *Professor, History; Division Chair, Social Sciences; Director, Rouse Scholars Program* 

#### Barbara G. Cooper (1991)

B.A., M.A., University of Maryland *Professor, English* 

#### PamelaM.Cornell(1978)

B.S., M.A.C.T., S.C.T., Murray State University; Ph.D., Virginia Polytechnic Institute *Professor, Human Development and Psychology* 

#### Valerie E. Costantini (1982)

A.A., Essex Community College; B.A., M.A., The Catholic University of America; M.A., Morgan State University *Professor, Theatre;* 

Division Chair, Arts & Humanities;

Producer and Artistic Director, Rep Stage; Producer, Aurora Dance Company

#### Victor H. Cummings (1992)

B.A., M.A., University of Maryland; M.Ed., Ed.D., Columbia University Teachers College Professor, English; Division Chair, English/Foreign Languages

#### Mary Jo Deets (1979)

B.A., Drury College Assistant Instructor, Office Technology

## Mary Patricia English (1995)

B.A., University of Baltimore; M.S., Central Michigan University; Registered Cardiovascular Invasive Specialist R.T.R.(CV)

Associate Professor, Cardiovascular Technology

#### Patrick L. Finley (1987)

B.G.S., University of Maryland; M.A., George Washington University

Associate Professor, Health and Life Fitness

### Susan H. Frankel (1982)

B.S., University of Maryland; M.S., Johns Hopkins University *Professor, English* 

#### Daniel Friedman (1970)

B.S., University of Maryland; M.S., Syracuse University *Professor, Chemistry;*Division Chair, Science and Technology

#### Yifei Gan (1992)

B.F.A., M.F.A., Southwest China Teachers University; M.S., University of Tennessee *Professor, Arts and Humanities* 

#### MaryW.Gardner(1986)

B.S., University of Maryland University College; C.P.A. *Professor, Accounting* 

#### **Brian E. Gray (1997)**

B.S., University of Michigan; M.A., University of Montana

Associate Professor, Mathematics

#### Mark H. Grimes (1993)

B.A., Frostburg State University; M.A., West Virginia University

Assistant Professor, English

#### Rita Guida (1986)

B.A., University of Maryland; M.M.S., Loyola College *Professor, English* 

#### Yoseph Gutema (1993)

B.A., Pacific University; M.S., University of Idaho; Ph.D., Washington State University Associate Professor, Economics

### M.J. Patricia Harley (1989)

B.S., University of Maryland; M.B.A., University of the District of Columbia

Associate Professor, Computer Systems

#### Tara J. Hart (1997)

B.A., Bucknell University; M.A., Ph.D., University of Maryland College Park Assistant Professor, English

#### Lee L. Hartman (1980)

B.S., University of Maryland; M.A., M.L.A., Johns Hopkins University

Professor, Arts & Humanities

#### Roger R. Hartman (1993)

B.A., Indiana University; B.S.E.E., Sec. Cert., Cleveland State University; Diploma, Engineering Science, Westinghouse School Applied Engineering; M.S., Johns Hopkins University

\*\*Associate Professor, Mathematics\*\*

#### David M. Hinton (1992)

A.A., Ret's Technical Training Center Assistant Professor, Computer Aided Design

### Steven J. Horvath (1997)

B.S., M.A., Indiana University of Pennsylvania Assistant Professor, English; Executive Associate to the Vice President of Academic Affairs

### Zoe A. Irvin (1982)

B.A., University of Maryland; M.S., Johns Hopkins University *Professor, Mathematics; Division Chair, Mathematics; Executive Assistant to the President* 

#### Mary Alice Jost (1987)

A.A., Immaculata College of Washington; A.A., Howard Community College; B.S., M.S., Towson University

Associate Professor, Biology

#### Deborah P. Kent (1994)

B.M., M.M., Mississippi College; D.M.A., The Peabody Conservatory of the Johns Hopkins University Assistant Professor, Music; Director, Music

#### Virginia K. Kirk (1971)

B.A., M.A., Michigan State University; M.A., University of Baltimore

Professor, Arts & Humanities Director of Distance Learning

## Donna B. Kirkley (1970)

A.A., Averett College; B.A., The College of William and Mary; M.A., University of Maryland *Professor, Speech* 

#### Fran P. Kroll (1990)

B.A., University of Florida; M.A., George Washington University

Associate Professor, Early Childhood Development and Teacher Education

#### Beverly A. Lang (1993)

A.A., Catonsville Community College; B.S.N., University of Maryland; M.S.N., Johns Hopkins University

Associate Professor, Nursing

#### Judith A.Law (1975)

A.S., Robert Morris Jr. College; B.S., M.S., University of Akron

Professor, Office Technology

#### Robert I. Levene (1971)

B.S., University of Scranton; M.A., University of Nebraska; M.S., Shippensburg State College; Ed.D., The George Washington University *Professor, History* 

#### Carolyn B. Lovell (1980)

B.A., Goucher College; M.S., Johns Hopkins University *Professor, English* 

#### Lawrence H. Madaras (1970)

B.A., Holy Cross College; A.M., Ph.D., New York University

Professor, History

#### Theresa A. Madden (1991)

B.A., Silver Lake College; M.A., University of Chicago *Associate Professor, English* 

#### Vladimir G. Marinich (1970)

B.A., City College of New York; M.A., New York University; C.A.S., Johns Hopkins University *Professor. Social Science* 

### Rebecca W. Mihelcic (1986)

B.S., Penn State; M.S., Kansas State University; M.A., Ph.D., University of Maryland *Professor, Business;*Coordinator of International Education

#### Paula J. Mikowicz (1989)

B.A., State University of New York at Albany; M.S., Johns Hopkins University

Associate Professor, Mathematics

#### Helen B. Mitchell (1974)

B.A., Hood College; M.Ed., M.M.S., Loyola College; Ph.D., University of Maryland *Professor, Philosophy; Director of Women's Studies* 

#### RovanneMoran(1986)

B.S.N., M.S.N., University of Maryland *Professor, Nursing* 

### Donna M. Musselman (1990)

B.S.N., University of Maryland at Baltimore; M.S., Medical College of Virginia of Virginia Commonwealth University; Graduate Certificate, Johns Hopkins University

Professor, Nursing

#### Vinitha A. Nithianandam (1989)

B.E., University of Madras; M.S., University of Scranton *Professor, Computer Support Technology and Electronics/Telecommunications* 

#### Patrick J. O'Guinn (1993)

B.S., San Jose State University, J.D., University of California, Hastings College of Law Associate Professor, Criminal Justice and Business Law

#### Jude C. Okpala (1997)

B.A., Bigard Memorial Seminary; M.A., Howard University *Instructor, English* 

#### Jennifer L. Penniman (1995)

B.S., M.Ed., University of Maryland *Assistant Professor, Mathematics* 

#### Sharon J. Pierce (1990)

B.S., M.S.N., University of Maryland at Baltimore Associate Professor, Nursing

#### Russell A. Poch (1972)

B.S., Western Illinois University; M.S., Michigan State University; A.G.S., University of Maryland *Professor, Physics/Physical Science* 

#### Deborah T. Randolph (1995)

B.S., Skidmore College; M.S., Villanova University; CNE and CNI Certified Assistant Professor, Information Systems

#### Rochelle M. Ratliff (1999)

B.S., State University of New York; M.S., University of Maryland

Nursing Instructor (Evening/Weekend)

#### Bruce M. Reid (1970)

A.A., Howard Community College; B.S.E.E., Milwaukee School of Engineering; M.S.E., Johns Hopkins University

Professor, Biomedical Engineering Technology

#### Bernadette B. Sandruck (1991)

B.S., Towson University; M.S., Johns Hopkins University

Associate Professor, Mathematics

#### Sharon L. Schmickley (1980)

B.S., Springfield College; M.S., Southern Connecticut State University

Professor, Computer Systems;

Division Chair, Business and Computers

#### Laura C. Sessions (1997)

A.A., Anne Arundel Community College; B.A., University of Maryland College Park; M.S.N., Johns Hopkins University

Assistant Professor, Nursing

#### Andrea D. Shanklin (1993)

B.A., M.A., Mississippi State University *Assistant Professor, English* 

#### Patricia R. Sipe (1994)

B.S.N., Russell Sage College; Ed.M., Teachers College, Columbia University

Associate Professor, Nursing

#### **Emily T. Slunt (1976)**

B.S.N., Johns Hopkins University; M.S., Ph.D, University of Maryland *Professor, Nursing;* Division Chair, Health Sciences/Director of Nursing

#### Deborah A. Smith (1999)

B.S.N., Ohio State University; M.S., Wright State University

Assistant Professor, Nursing (Evening/Weekend)

#### Jennifer L. Stanford (1997)

 $\label{eq:B.S.N.} \textbf{B.S.N., George Mason University; M.S.N., University of Maryland}$ 

Instructor, Nursing

#### ConsueloF.Stewart (1991)

B.S., Towson University; M.S., Johns Hopkins University

Associate Professor, Mathematics

#### Sharon B. Stewart (1982)

B.A., Skidmore College; M.Ed., Johns Hopkins University; M.B.A., Loyola College *Professor, Computer Systems* 

#### Kristina J. Suter (1999)

B.M., Mansfield State College; M.M., Michigan State University; D.M.A., University of Maryland *Instructor, Music* 

#### Catherine W. Sutton (1996)

B.A., Catholic University of America; M.B.A., Loyola College

Instructor, Office Technology

#### Jean M. Svacina (1999)

B.A., University of Wisconsin; M.A., Ph.D., University of Illinois

Instructor, English as a Second Language

#### Patricia J. Turner (1974)

B.A., University of Maryland; M.S., Towson University *Professor, Anatomy/Physiology* 

#### Patricia Van Amburg (1988)

B.A., Nazareth College; M.M.S., Loyola College *Associate Professor, English* 

#### Philip J. Vilardo (1993)

B.A., Penn State University; M.A., Ph.D., Johns Hopkins University

Assistant Professor, Sociology

#### Marquis T. Walker (1994)

B.S., Morgan State University Assistant Instructor, Biology

#### Peggy L. Walton (1981)

B.A., Wheaton College; M.Ed., Rutgers University; Ph.D., The Union for Experimenting Colleges and Universities

Professor, English

#### Janice A. Weinberger (1999)

B.S., University of Maryland; M.S., George Washington University *Instructor, Biology* 

### Linda D. Wiley (1990)

B.S., M.S., Towson University; M.Ed., West Chester University

Assistant Professor, English

#### Jane M. Winer (1979)

B.F.A., M.F.A., University of Arizona *Professor, Art & Humanities* 

#### Wei Xie (1997)

B.S., Shandong Medical University; M.S., University of Missouri-Kansas City

Assistant Instructor, Chemistry/Physics

## **ADJUNCT FACULTY**

On a rotating basis, adjunct faculty who have made a long-term contribution to HCC will be highlighted in this section.

#### Nancy J. Allen (1985)

B.S., Alserson-Broaddus College; M.S., Syracuse University *Instructor, Health Care* 

#### Karie A. Batzler (1993)

B.S., Towson State University; M.S., Loyola College; Certified Chemical Dependency Counselor and Certified Licensed Professional Counselor Instructor and Consultant, Chemical Dependency Program

#### Bruce T. Casteel (1986)

Peabody Institute; Towson State University *Instructor, Music* 

#### Peter D. Collier (1990)

B.S.A., Maryland Institute College of Art; M.S.A., Maryland Institute College of Art *Instructor, Art* 

#### Kyle A. Coughlin (1994)

B.A., University of Maryland; M.M., Peabody Conservatory; D.M.A., Peabody Conservatory *Instructor, Music* 

#### Dave Dickens (1996)

A.A., Essex Community College; B.S., University of Baltimore; M.P.A., University of Baltimore; Ph.D., University of Maryland *Instructor, Psychology* 

#### Jay Downs (1981)

B.S., Henderson St. T. College; M.S., University of Arkansas; M.S., Texas Christian University *Instructor, Math* 

#### Sohayla R. Eberl (1995)

B.S.N., University of Maryland; M.A., Johns Hopkins University *Instructor, RN and PN Nursing Education Program* 

#### Luanne Erickson (1997)

B.S., SUNY Plattsburgh; M.A., University of Maryland *Instructor, English* 

#### Lawrence J. Fischer (1994)

M.S., University of Delaware; Ph.D., Louisiana State University *Instructor, History* 

#### Nancy J. Frank (1993)

B.S. University of Connecticut *Instructor, Lifetime Fitness* 

#### Cecilia (Joie) Kohl-Collier (1997)

B.S., Towson State University; M.A., University of Baltimore *Instructor, English* 

#### Richard L. Leith (1990)

B.A., University of Maryland Baltimore County; M.A., University of Maryland *Instructor, English* 

#### Stephen W. Leslie (1994)

B.A., University of Maryland; M.S., Johns Hopkins University *Instructor. Economics* 

#### Mary J.C. Lombardo (1978)

B.S.N., St. Joseph College; M.S.N., University of Illinois *Instructor and Clinical Specialist, Nursing Education Program* 

#### Sandra R. Mallare (1994)

A.A., Jamestown Community College; B.A, M.S., State University of New York- Fredonia *Instructor, English* 

### Joseph A. Mason (1994)

B.S., University of Maryland Eastern Shore; M.A., Michigan State University Instructor, Human Development

#### Susan Morgan (1993)

A.A.; Cuyahoga Community College; B.S., Cleveland State University; Ph.D., Pennsylvania State University *Instructor, Chemistry* 

#### Robert Y. O'Brien (1995)

A.B., Woodstock College; B.S., Georgetown University; M.A., Boston College; M.A., Temple University

*Instructor, Philosophy* 

#### Joan K. Okin (1989)

B.A., American University; M.Ed., University of Maryland *Instructor, English* 

#### Janet M. Schoenfeld (1197)

B.B.A., Ohio University *Instructor, Computer Science* 

#### Christine Sharpe (1996)

B.A., University of Maine; M.A., The American University

Instructor, English as a Second Language

#### Karina Shipps (1995)

B.A., University of Mississippi *Instructor, English* 

#### Virginia H. Shenk (1988)

B.S., Penn State University

Learning Assistance Center Math Specialist

#### Morteza Tadayon (1998)

B.S., University of Louisville; M.S., University of Louisville

Instructor, Computer Systems Technology and Electronics

### Brian R. Vanisko (1992)

B.S., Towson State University

Instructor and Consultant, First Aid and Safety

#### Diana J. Wickersham (1987)

B.A., Catholic University; M.A., Johns Hopkins University *Instructor, Computer Science* 

#### Daniel G. Wolf (1993)

B.S., Case Institute of Technology; M.S., University of Maryland *Instructor, Computer Science* 

#### **EMERITI**

#### Mark M. Canfield (1972)

B.A., Denison University; M.A.T., Johns Hopkins University; Ph.D., University of Maryland *Professor Emeritus, Sociology* 

#### Bernadene C. Hallinan (1971)

B.S., M.S., Elmira College; R.N., St. Joseph's Hospital *Professor Emeritus, Allied Health* 

#### Martha A. Matlick (1971)

Diploma, Mercy Hospital School of Nursing; B.S., M.S., St. John's University; Ed.D, Virginia Polytechnic Institute and State University

Professor Emeritus, Nursing

#### Ruby Kay Meyers (1984)

B.S., Mary Washington College; M.S., George Washington University; M.S., Johns Hopkins University *Professor Emeritus, Mathematics* 

#### Alfred J. Smith, Jr. (1969)

B.S., University of Buffalo; M.A., Columbia University; Ed.D., Indiana University *President Emeritus* 

# Curriculum Advisory Committees

#### ACCOUNTING

RUSSELL B. CONOVER, CPA-Auditor, Administrative Office of U.S. Courts

ELIZABETH GERKIN, CPA—Accountant/Auditor, Main Hurdman

SALLY GORDON—Alumni, Finance Department, Equitable Bank

RUTH HUTCHINSON

SUZANNE MARSH—Tax Consultant, Deloitte Haskins

GAIL SPAHN-Alumni

GERTRUDE REICHLE, CPA—National Education Center, Temple School Campus

JUDITH WHEELER—Talles Construction Company

### **BIOMEDICAL ENGINEERING TECHNOLOGY**

RICK APPLEGATE—Field Support Engineer, General Electric Medical

KEVIN CRAVEN—Production Manager, Applied Specialties, Inc.

JOSEPH HARRISON—Supervisor, Biomedical Engineering, DC General Hospital

JAMES V. JONES—Field Service Engineer, Beckman Instruments

GLEN MARROW—Biomedical Engineering Technician Supervisor, Children's Hospital

ROBERT SHARP—Electronics Instructor, Howard Vocational Technical Center

ROBERT STIEFEL—Director, Clinical Engineering, The Johns Hopkins Hospital

#### **BUSINESS MANAGEMENT**

MARY BECKER—Senior Corporate Banking Officer, First American Bank of Maryland ROBERTA E. DILLOW—Director Metropolitan Affairs, Baltimore Gas and Electric Company MURRAY GOLDSTEIN—C.E.O. (Retired) Dairy King JOSEPH GUILFOYLE—Director of Personnel, Racal Communications, Inc. JANET HADDAD—Director of Personnel, Howard County Government

JAMES KNOWLES—Personnel Manager, Technical Services Department, Johns Hopkins Applied Physics Laboratory

LYNN PETERSON NORFOLK—Manager and Assistant Treasurer, Citizens Savings and Loan Association, Inc.

#### CARDIOVASCULAR TECHNOLOGY

DANIELE CARTWRIGHT, RCIS—Clinical Preceptor, Washington Hospital Center

GRACE COLE, RTR—Manager, Cardiac Cath Lab, Central Maryland Heart Center at Howard County General Hospital

HERMAN DAWSON, RCIS—Director of Cardiology and Neurology, Holy Cross Hospital

MICHELLE FISCHER, RCVT—Manager, Radiology Imaging

MARSHA HOLTON, RN, BSN, CCRN—Washington Adventist Hospital

DAN KOHLER, CNMT-DuPont

THOMAS LUBY, MBA, RTR—Anne Arundel Community College

CAROLINA MALFARA, RN, BSN, CCRN—Cath Lab, CDCR Nurse Manager, Sinai Hospital

SANDRA MOORE, BS, RTRM—Johns Hopkins Hospital School of Radiology

VONCILLE MORROW, RT—Director, Invasive Cardiology Services, Washington Hospital Center BARBARA PEARSON, RCIS—Alumni

JO RODNEY RESAR, MD—Medical Director, CVT Program, Howard Community College

## COMPUTER AIDED DESIGN (CAD) TECHNOLOGY

WEBSTER BAILEY-RICHTER—Cornbrook and Gribble, Architects

## **CURRICULUM ADVISORY COMMITTEES**

JOHN CLEMSON—Chairman of Maryland Division, American Institute of Architects TOM FAUCHER—RTKL Associates, Inc. DAVID HINTON—D.M.H. CAD Applications EARL MANN—S & C CADD Service CAROL NOBLE—Burton Associates T. MICHAEL SWEENEY—Stuart Medical, Inc. CHUCK VENABLE—Howard County Public School System

ALLEN WAINGER-Department Head, CADD Systems ROGER L. WEST-JHU Applied Physics Laboratory

#### **CRIMINAL JUSTICE**

ALICE GAIL POLLARD CLARK—Judge, Howard County District Court

BOBBIE FINE, Esquire—Adjunct Faculty, Howard Community College

LAWRENCE A. GREENFELD—Director, U.S.

Department of Justice, Office of Justice Programs

C. WWYNE LIVES W. Chief of Police, Howard County

C. WAYNE LIVESAY—Chief of Police, Howard County Police Department

MELANIE PEREIRA—Director, Howard County Department of Corrections

JAME'S ROBEY—Howard County Executive, ex officio JOSEPH SLERT—Deputy Chief, U.S. Probation Office JAY ZUMBRUM, JR.—Captain, Howard County Police Department

#### **DATA PROCESSING**

GARY DIKE—Deputy Director of Operation-Production Controls, National Computer Center

JOSEPH HUNTER—Manager, Information Systems, Baltimore Gas & Electric

MICHAEL JECKO—Vice President and Director, MIS, The Rouse Company

LEE R. MATOUSEK—Technical Director, Morgan Technologies

MORTEN L. PETERSEN—Manager, Data Processing and Computer Control, Niro Atomizer, Inc.

RICHARD RAVER—Manager, Computer Services, W.R. Grace and Company, Research Division

PAUL RUDMAN—President, Wagner's Office Products JUDY RYBIKOWSKY—Technical Training Advisor, Social Security Administration

R. W. TOWNSEND—President, Personal Computer Repairs, Inc.

#### EARLY CHILDHOOD DEVELOPMENT

BARBARA CURTIS—Director, Head Start, Community Action Council of Howard County

DOROTHY ERNST—Licensing Specialist, Department of Human Resources, Child Care Administration GERRY FEILD—Center Director, Columbia Kindercare JEAN GRINSPOON—Executive Director, Bet Yeladim,

TRACY JONES—Teacher on Assignment, Elementary Office, The Howard County Public School System SUSAN MORRIS—Early Childhood Specalist, Howard County Library

MARILYN NOBLES—Resource Teacher, Home Economics/CWE, The Howard County Public School System

VICKIE SCRIVENER—The Partnership for Children NANCY WEBER, R.N.—Chair, Local Children's Board for Howard County

DEBBIE YARE—Program Manager, Howard County Child Care Resource Center

JOANNE YOUNG-Administrator, The Young School

#### **ELECTRONICS TECHNOLOGY**

ROBERT BARD—Professor of Electronics Technology, Prince George's Community College

MATTHEW J. BELOVARICH—Automated Graphic Supervisor, Bendix Field Engineering

RICHARD BROCATO—Manager of Technical Services, Johns Hopkins Applied Physics Lab

JEREMIAH HETHERINGTON—Principal Professional Staff, Staff Group Supervisor, Satellite Communications Engineering Group, Johns Hopkins Applied Physics Laboratory

ROBERT SHARP—Electronics Instructor, Howard County Vo-Tech Center

#### **EMERGENCY MEDICAL SERVICES**

ANGIE DAVIS, MS, EMT-P—ALS Coordinator, Maryland Fire and Rescue Institute

P. MARC FISCHER, MBA, EMT-P—Volunteer Provider, Howard County Volunteers

DWIGHT POLK, MSW, EMT-P—Paramedic Program Coordinator, University of Maryland Baltimore County

KEVIN SEAMAN, MD—Medical Director for Howard County Fire and Rescue and HCC EMS Program

## **CURRICULUM ADVISORY COMMITTEES**

WILLIAM SEIFARTH, MS, EMT-P—Associate Director for Educational Development, Maryland Institute of Emergency Medical Services Systems

CHRIS SHIMER—Captain, Training Officer, Howard County Fire and Rescue

Maryland State Fireman' Association representative Student Alumnus representative

Howard County General Hospital representative Commercial Ambulance Service representative

#### FINANCIAL PLANNING

CHARLES BARR—Investment Broker and Branch Manager, Paine Webber Andrea Gould - Associate Dean, Robert G. Merrick School of Business, University of Baltimore

FRANCES MAKINO—Adjunct Faculty, Howard Community College

HOWARD MÍRVIS—Vice President of Investments, Legg, Mason, Wood, Walker, Inc.

BARRY SCHUTTLER, CFP—President, FSC Securities MARY J. STEPHENSON, CFP—Family Resource Management Specialist, University of Maryland

CAROL VAUGHN—Financial Consultant & Vice President, Meryl Lynch Pierce Fenner & Smith, Inc. JOHN S. WHITESIDE—President, Commercial & Farmers Bank

#### LABORATORY SCIENCE

GAIL GARDNER—Personnel Representative, Research Division, W. R. Grace

SHERRY HIPPEN—Human Resource Manager, Pharmacia Diagnostic, Inc.

LYNDA KEIFER—Senior Research Scientist, Westvaco ROBERT OBST—Manager, Employment, W. R. Grace JENNIFER QUIRK—Manager, Technical Products DENISE TESTER—Program Manager, Pharmacia Diagnostic, Inc.

ANN VILECE—Personnel Services Supervisor, Westvaco

HENRY WELLS—Senior Research Biochemist, New Horizons

#### **NURSING**

JUDY E. BROWN, M.A.S., R.N., C.N.A.A.—Nurse Executive, Howard County General Hospital LINDA FISH, R.N., Director of Medical Specialty Programs, Maryland Health Enterprises JUDITH HORENSKY—Director of Clinical Services, Personal Touch Home Care of Baltimore, Inc.

KATHLEEN M. JONES, M.S., R.N.—Coordinator, Professional Nursing, Allied Health and Special Populations, HCC Continuing Education

BARBARA FEAGA LARIMORE—Health Director, Association of Retarded Citizens

STUART MAYNARD, Ph.D., R.N.C.S.—Nurse, Psychotherapist

ANN MECH, MS, JD—Assistant Professor of Nursing, Coordinator for Legal Services, University of Maryland

JOAN McWILLIAMS—Director, Medical-Surgical Nursing, Maryland General Hospital NORA SCANLON—Counselor, Wilde Lake High School JEAN TROTTER, R.N., M.S.—Health Care Consultants RICHARD WEISENHOFF, Ph.D.—Coordinator for Educational Technologies, Howard County Public Schools

#### OFFICE TECHNOLOGY

FREDERICK G. ANTENBERG, ESQ.—Attorney
NANCY CAMPBELL—Columbia, Medical Plan,
Ophthalmology Department
GLADYS CURLEY—Manager of Cardiology, Howard
County General Hospital
CAROL A. HARTMAN—Clerical Search Specialist
EDWIN M. HENRY, JR., ESQ.—Attorney
ABBY ROSENBLOOM—Employment Specialist, Special
Counsel

#### **PLANT SCIENCE**

NICK ADAMS—Owner, Ten Oaks Nursery RAY BOSMANS—Extension Agent, Howard County Extension Service

JOSEPH DYMYK—Instructor of Horticulture, Howard County School of Technology

LEE GRANT—Professor of Agriculture, University of Maryland

CHIP McDONALD—President and Owner, Columbia Grounds Management

JOHN METZLER-Owner, Metzler's Nursery

## **CURRICULUM ADVISORY COMMITTEES**

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## INDEX

	0
A	C
A+ Certification, 120	Calendar, iii
Academic Advising, 34	CampusWeb Courses, 23
Academic Computer Support, 6	Cancellation of Courses, 29
	Cardiovascular Technology, 110-114, 152
Academic Honesty, 31	Career Links, 37
Academic Information, 21	Career Services, 35
Academic Procedures, 26	
Academic Standards, 29	Certificate of Proficiency, 21
Academic Support and Career Services, 35	Challenge Exams, 25
Accounting, 104, 141	Chemical Dependency Counseling, 115
CPA Exam, Preparation for the, 104	Chemistry, 153
Accreditation, 2	Child Care Services, 35
Admission Policies and Procedures, 9	Closing of College, Emergency, ix
Advanced Discoment Even 24	College Level Examination Program, 24
Advanced Placement Exam, 24	College Map, 240
Advising, Student, 34	College Profile, 1
Affirmative Action, 1	Computer-Aided Design, 116-117, 156
Alumni and Friends Association, 2	
Anthropology, 142	Computer Services, 8
Architecture, 62	Computer Science, 93-94
Art, 63-64, 142	Computer Support Technology, 118-120
Arts and Sciences, 62-89	Computer Systems, 157
Architecture, 62	Conduct, Student, 8
Art, 63-64	Continuing Education, 49
	Cooperative Education, 36, 161
Criminal Justice, 65	Core Requirements, 55
Environmental Science, 66	Costs, 4
Health and Fitness Education, 67-68	Course Codes, 59
Laboratory Science, 69	
Liberal Arts, 70	Course Descriptions, 141-218
Life Sciences, 71	Accounting (ACCT), 141
Music, 72	Anthropology (ANTH), 144
Nursing, 73-74	Art (ARTT), 142
Physical Sciences, 75	Astronomy (ASTR), 147
Pre-Allied Health, 76	Biology (BIOL), 147
Pre-Dentistry, 77	Biomedical Engineering (BMET), 150
Pre-Medicine, 78	Business Administration (BMGT), 150
	Cardiovascular Technology (CARD), 152
Pre-Medical Technology, 79  Pre-Nuclear Medicine Technology, 90	Chemistry (CHEM), 153
Pre-Nuclear Medicine Technology, 80	Computer-Aided Design (CADD), 155
Pre-Optometry, 81	Computer Systems (CMSY), 156
Pre-Pharmacy, 82	Cooperative Education (COOP), 161
Pre-Veterinary Medicine, 83	Criminal Justice (CRIM), 162
Psychology, 84	
Social Sciences, 85-87	Dance (DANC), 163
Theatre, 88-89	Economics (ECON), 164
Associate in Applied Science Degree, 21	Education (EDUC), 164
Associate in Arts Degree, 21	Electronics (ELEC), 168
Astronomy, 147	Emergency Medical Services (EMSP), 170
Athletics, 39	Engineering (ENES), 172
Attendance Policy, 27	English (ENGL), 172
Audit, 28	Film (FIĽM), 177
Auuit, 20	Fine Àrts (ÉİNE), 177
В	Financial Planning (FNPL), 178
Basic Skills, 49	French (FREN), 179
Biology, 147	1 / 2 - 2 - 3
Biomedical Engineering, 105-106, 150	Geography (GEOG), 179
	Geology (GEOL), 180
Board of Trustees, ii	German (GERM), 180
Business Administration, 90-92, 150	Health Care (HEAL), 181
Business Management, 107-109 Rusiness Training, 49	Health Education (HEED), 181
DUNIUEN CLAUTION 49	

Course Descriptions (continued)	Curricula ( <i>continuea</i> )
History (HIST), 184	Early Childhood Development, 121-122
Human Development (HMDV), 188 Italian (ITAL), 189	Electronics Technology, 123-124 Telecommunications Technology, 125-126
Life Fitness (LFIT), 189	Emergency Medical Services, 127-129
Management (MAMT), 191	Engineering, 95
Mass Media (MASS), 192	General Studies, 96
Mathematics (MATH), 193	Network Administration, 131-132
Meteorology (METO), 197	Nursing, Practical, 134
Microsoft (MSFT), 197	Office Technology, 135-138
Music (MUSC), 200	Plant Science, 139
Nursing (NURS), 203	Radiologic Technology, 142
Office Technology (OFFI), 205	Teacher Education, 97-101
Philosophy (PHIL), 207	Curriculum Advisory Committees, 233
Physics (PHYS), 208	Curriculum Profile, 52
Plant Science (PLSC), 209	CustomClass, 28
Political Science (PÓLI), 211	
Psychology (PSYC), 211	D
Retailing (RÈTL), 212	D
Russian (RUSS), 212	Dance, 163
Sociology (SOČI), 213	Dean's List, 26
Spanish (SPAN), 214	Digital Prepress, 64
Speech (SPCH), 215	Directory for Assistance, ix Disabled Student Services, 36
Smalltalk (SMAL), 215	Distance Learning, 22
Theatre (THET), 216	Distance Learning Degrees, 22
Women's Studies (WMST), 217	Drug and Alcohol-Free Campus, 7
CPA Examination, Preparation for, 104	Brag and Mooner 1700 Sampas, 7
Credit for Prior Learning, 23	_
Credit Free Division, 49	E
Criminal Justice, 65, 162	Early Childhood Development, 121-122
Curricula, 61-140 Accounting - Preparation for CPA Examination, 104	Economics, 164
Arts and Sciences, 62-89	Education, 164
Architecture, 62	Educational Foundation, 2
Art, 63-64	Electives, 58 Electronics Technology, 123-124
Criminal Justice, 65	Emergency Medical Services, 127-129, 170
Environmental Science, 66	Employment, Student Programs, 16
Health and Fitness Education, 67-68	Engineering, 95, 172
Laboratory Science, 69	English, 174
Liberal Arts, 70	Environmental Science, 66
Life Sciences, 71	
Music, 72	F
Nursing, 73-74	Faculty, 226
Physical Sciences, 75	Fees, 4
Pre-Allied Health, 76	Film, 177
Pre-Dentistry, 77	Financial Aid, 13
Pre-Medicine, 78	Fine Arts, 177
Pre-Medical Technology, 79	Financial Planning, 178
Pre-Nuclear Medicine Technology, 80	Foreign-Born Programming, 49
Pre-Optometry, 81	Foundation, HCC Educational, 2
Pre-Pharmacy, 82	French, 179
Pre-Veterinary Medicine, 83 Psychology, 84	
Social Sciences, 85-87	G
Theatre, 88-89	General Educational Development (GED), 49
Biomedical Engineering Technology, 105-106	General Education Requirements, 55
Business Administration, 90-92	General Studies, 96
Business Management, 107-109	Geography, 179
Cardiovascular Technology, 110-114	Geology, 180
Chemical Dependency Counseling, 115	German, 180
Computer Aided Design Technology, 116-117	Grading System, 30
Computer Science, 93-94	Graduation Petitions, 27
Computer Support Technology, 118-120	Graphic Design, 64

H	Program Selection, 55
Health and Fitness Education, 67-68	Psychology, 84, 211
Health Care, 181	
Health Education, 181 History, 184	Q Quality Point Average 20
Home Page, ix, 22	Quality Point Average, 30
Honors, Graduation with, 26	R
Honors Program, 25	Radiologic Technology, 140
Human Development, 187	Readmission, 29
I	Records, 27
Incomplete Grades, 30	Refunds, Tuition, 5
Insurance, Medical, 4	Registration and Enrollment, 28 Retailing, 212
Italian, 189	Retention Services, 37
1	Russian, 212
Job Assistance, 36	
300 / (33)3tu1100 / 30	\$
L	Scholarships and Loans, 15
Laboratory Science, 69	Senior Citizen, Tuition Waiver for, 5 Semester Schedule, 29
Learning Assistance Center, 36	Sexual Harassment, 8
Letter of Recognition, 21 Liberal Arts, 70	Services for Students with Disabilities, 36
Library, 6	Smalltalk, 215
Life Fitness, 189	Social/Personal Counseling, 37
Life Sciences, 71	Sociology, 213 Spanish, 214
Loans and Scholarships, 15	Speech, 215
LPN Pathway Sequence, 74	Statewide Instructional Programs, 51
M	Student Address Change, 28
Management, 191	Student Injuries 2
Maps, 240	Student Injuries, 3 Student Health and Insurance, 3
Mass Media, 192	Student Life, 38
Mathematics, 193 Meteorology, 197	Student Records, Confidentiality, 27
Microsoft, 197	Student Residency, 2
Microsoft Certification, 132	Student Responsibilities, 58
Mission Statement, 2	Student Support Services, 36 Studio Art, 63
Music, 72, 200	Suspension, 29
N	
Network Administration, 131-132	Т
New Student Orientation, 34	Teacher Education, 97-101
Non-Credit Courses, 49	Telecommunications Technology, 125-126
Novell, 205 Nursing, 73-74, 134, 203	Test Center, 37 Theatre, 88-89, 216
Nutsing, 75-74, 154, 205	Transfer Evaluations, 11
0	Transfer Information and Articulation, 11, 35
Office Technology, 133, 205	Transfer Policies, 41
Online Courses, 24	Tuition and Fees, 4 Tuition Refunds, 5
P	Tuition Waivers, 5
Personal Counseling, 37	
Parent Orientation Program, 34	V
Philosophy, 207	Veterans Affairs, 20
Photography, 63	Vision Statement, 1
Physics, 208 Placement Testing, 21	Vocational Support Team, 37
Plant Science, 141, 209	W
Political Science, 211	Weekend College, 49
Practical Nursing, 134	Welcome and Information Center, 5
Probation, 29 Proficiency Exams, 25	Withdrawal from Classes, 28 Women's Studies, 217
FIUNCICIUV EXAINS, 20	WOITELL 2 STUDIES: ZT/

