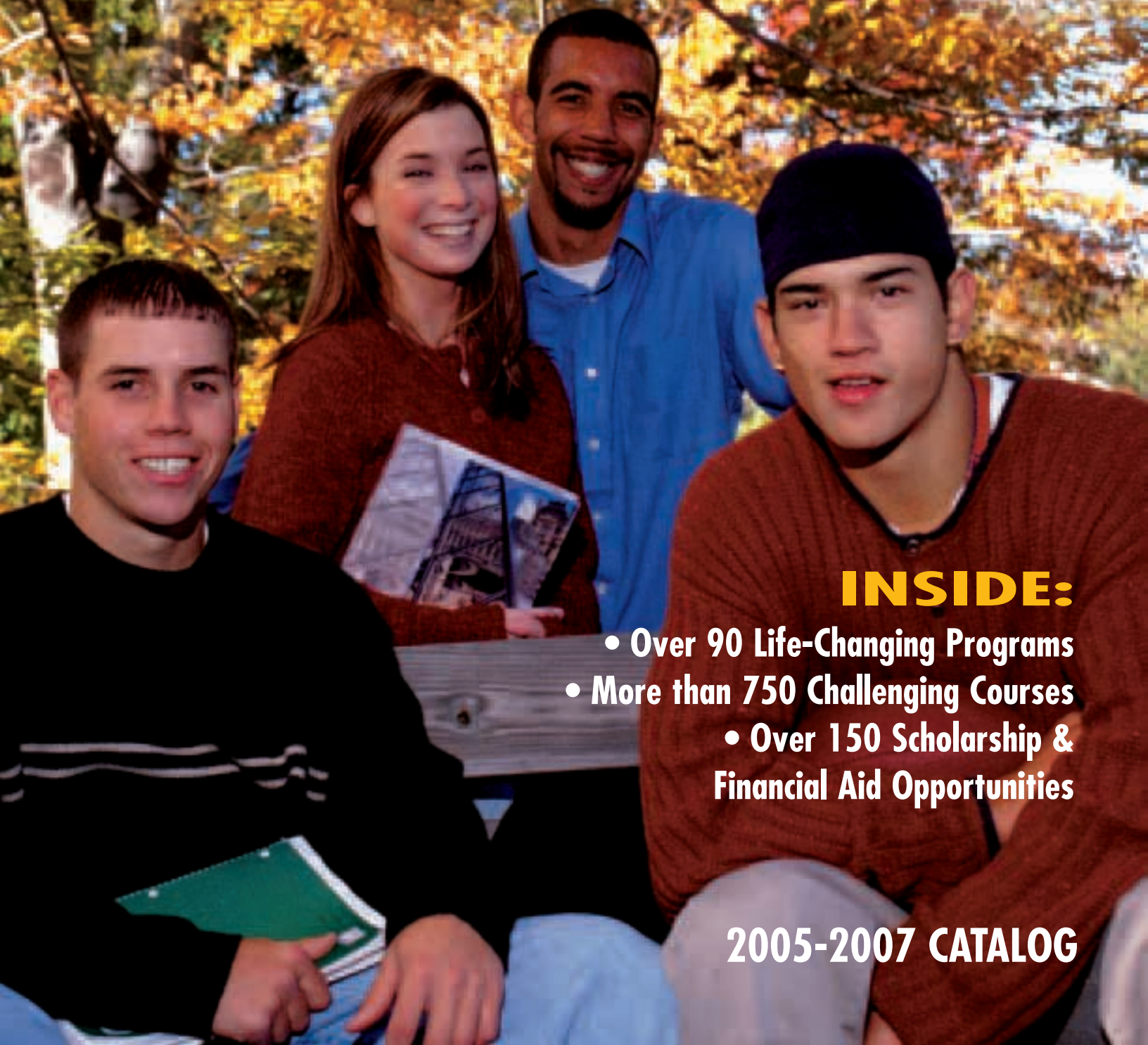


UCC

CRANFORD • ELIZABETH • PLAINFIELD • SCOTCH PLAINS

Union County College



INSIDE:

- Over 90 Life-Changing Programs
- More than 750 Challenging Courses
- Over 150 Scholarship & Financial Aid Opportunities

2005-2007 CATALOG

Message from the President



For more than 70 years Union County College has been preparing students to change their lives through the challenges and rewards of higher education. Proud of its heritage as the oldest, continuously operating, public 2-year college in the State of New Jersey, UCC has welcomed over 1 million students since its founding in 1933.

At UCC, career-minded students and those who seek to continue their education after graduation can choose from over 90 exciting and relevant programs of study. For those who choose to go further, UCC graduates find a sure path to a bachelor's degree by way of the many dual admission and transfer and articulation agreements the College has with 4-year institutions throughout the nation.

This catalog will familiarize you with the education community that is Union County College. To find out more, I urge you to visit us. Our programs and services are constantly being updated to meet the challenges of tomorrow, so that you, too, can change your life!

Sincerely,

Dr. Thomas H. Brown

Thomas H. Brown, Ph.D.



Welcome to UCC

CRANFORD
ELIZABETH
PLAINFIELD
SCOTCH
PLAINS

The world and the demands it places upon each and every human being are constantly changing. For more than seven decades, Union County College has been helping each new generation of students meet the challenges of change. Whether you are career-minded or transfer-oriented, UCC has a program to suit you. The College is firmly committed to

ing and supportive environment. Student services, from counseling and financial aid to the one-on-one tutoring provided by the Academic Learning Centers on each campus, are in place to ensure student success.

If you are interested in pursuing a bachelor's degree at less than half the cost of a 4-year



scholarship by providing a solid liberal arts foundation while, at the same time, offering new programs and courses that meet the needs of a rapidly developing society.

All four UCC campuses boast modern facilities and advanced data and voice infrastructures that can support the latest in computer hardware and software. All credit students are offered their own college e-mail accounts through which they can communicate with UCC's outstanding faculty, fellow students, and the vast world of knowledge and information available through the World Wide Web. Distance learning courses allow you to learn at home or from almost anywhere, with classes taught online or by videotape.

Even more important, UCC has a reputation for providing its diverse student body with a nurtur-

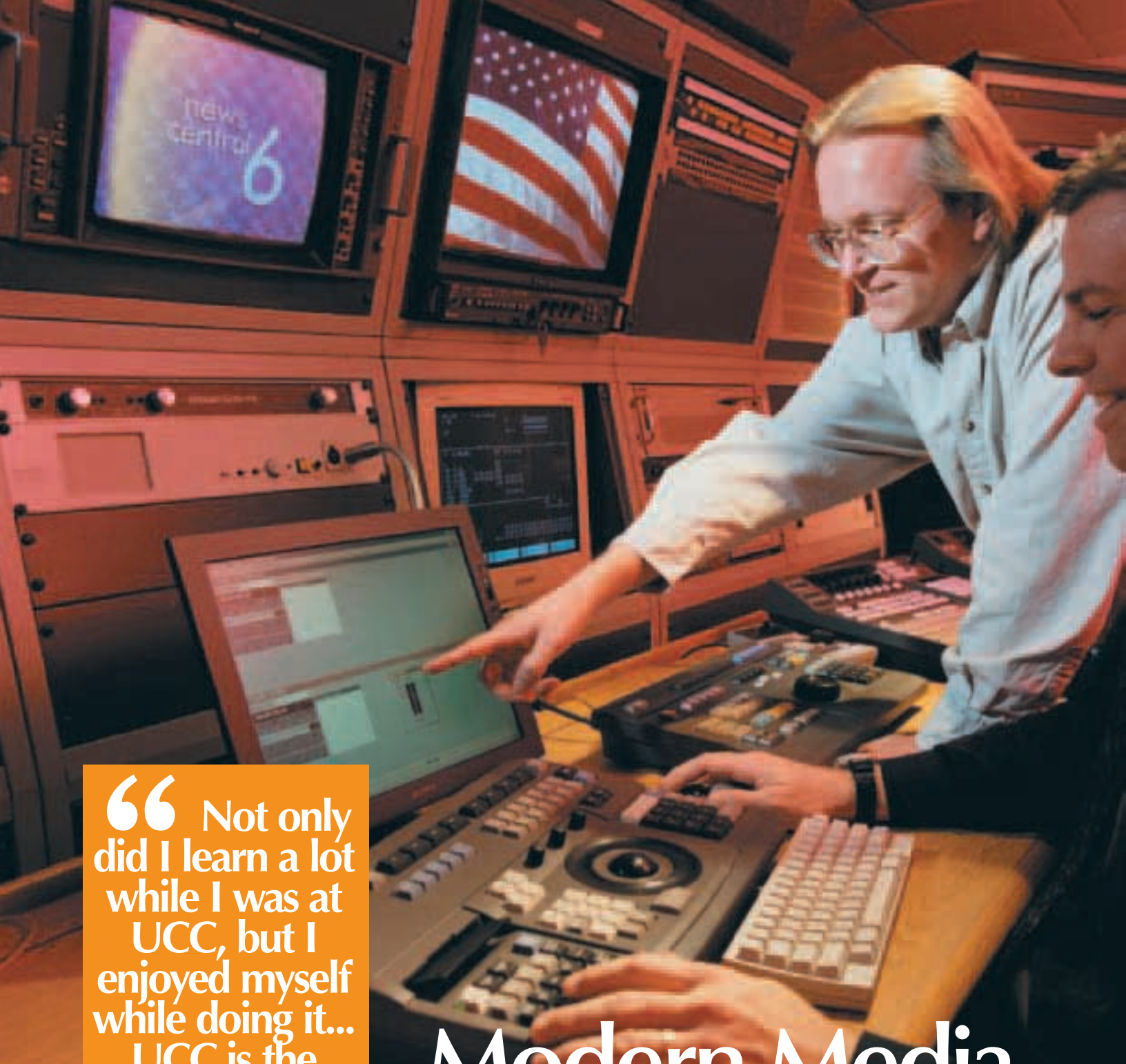
college, the economics of spending the first two years at Union County College, coupled with the 50+ dual admissions and transfer/articulation agreements that the College has in place, can ease the road to junior year status at a long list of colleges and universities throughout the U.S.

At UCC, you will have the chance to participate in a range of activities. These include a five-star chapter of the honor society of Phi Theta Kappa, a modern fitness center, and championship athletic programs.

Whether you are a recent high school graduate, an adult returning to school after some time away from the classroom, an employee seeking additional training or a new career, Union County College can be your guide on an educational journey on which

Yo ^{too}U [^] Can C Change Your Life!

(908)709-7518  UNION COUNTY COLLEGE |



“Not only did I learn a lot while I was at UCC, but I enjoyed myself while doing it... UCC is the reason I am in television today!”

David Anderson
UCC Class of '85
Director of Television
Programming, CNN –
Atlanta, Georgia

Modern Media

Communications & Media

Changing technology has created entire new career fields in media and communications. UCC's programs in communications, design, and multimedia are geared to support and improve students' abilities to exchange verbal and written information. In addition, the College serves those who have not mastered the English language through the UCC Institute for Intensive English – the largest provider of English as a Second Language (ESL) instruction in the State of New Jersey.

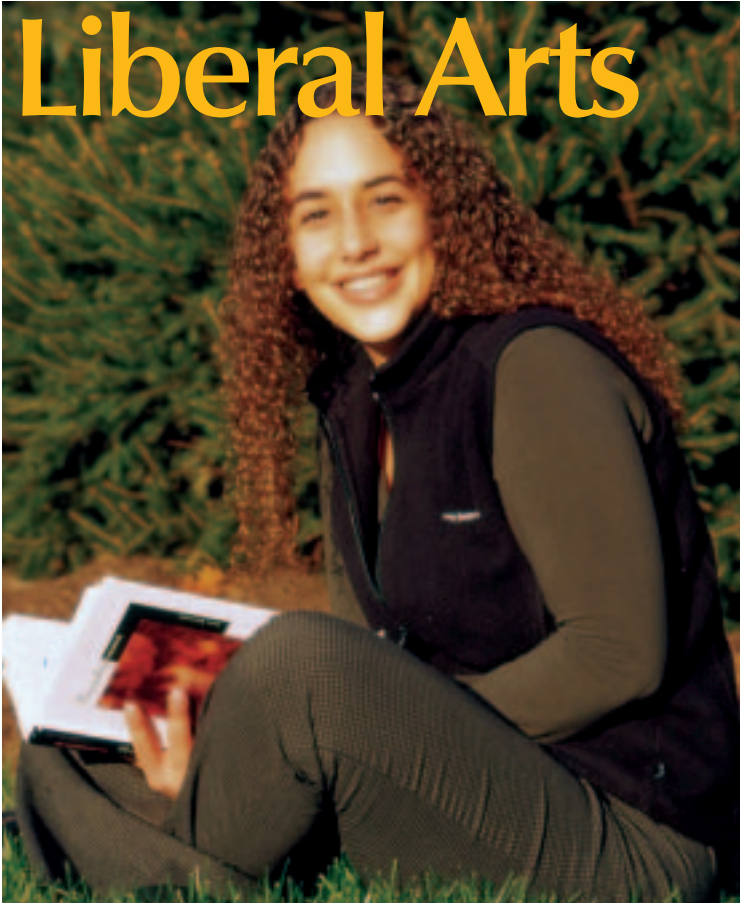
Choose from programs in:

- American Sign Language & Deaf Studies
- American Sign Language – English Interpreting
- Communications
- Deaf-Blind Interpreting
- Desktop Publishing
- English for Speakers of Other Languages
- Film
- Game Design Development
- Interpreters for the Deaf
- Interpreting Spoken Language
- Marketing, Advertising & Design
- Multimedia
- Print Journalism
- Public Relations
- Radio
- Television

YoU Can Choose

From Over 90 Challenging Programs of Study including:

Fine & Liberal Arts



“ At UCC I wasn’t a number, I was a person. UCC made me aware of the possibilities life can hold!”

Wayne Orshak
UCC Class of '74
Postmaster, U.S. Postal Service,
Cranford, NJ

“ UCC made my academic choices, options & decisions so easy.”

Melissa Brown
UCC Class of '02
Education Student
Kean University

Fine & Liberal Arts Programs

UCC's programs in the Liberal Arts offer a broad foundation in a variety of subjects – languages and literature, the social sciences, and the exact sciences – providing graduates with a program parallel to the first two years of study at a four-year college.

Many of UCC's Liberal Arts programs are dedicated to the study of the Fine and Applied Arts with options in music and drama, graphic design, illustration, photography, and the visual arts. Our modern studios and fully-equipped photography and graphic design laboratories are available for students to hone their craft.

Choose from programs in:

- American Studies • Drama • Graphic Design • Illustration • International Studies
- Music • Liberal Studies • Photography • Psychology • Public Policy
- Urban Studies • Visual Arts • Women's Studies

Health Programs

Over the next decade it is projected that the U.S. will experience a critical shortage of qualified nurses.

In cooperation with both the Muhlenberg Regional Medical Center and Trinitas Schools of Nursing, Union County College offers the highest quality programs in professional nursing in preparation for a career as an R.N. These programs have continually boasted the highest success in the rate of students who pass the licensing exams required for entry into the profession. UCC also ranks as the largest New Jersey provider of education and career preparation for the allied health professions.

Change Your Life with a program in:

- Dental Assisting • Dental Hygiene • Electrology
- Emergency Health Science • Gerontology • Health Sciences
- Massage Therapy • Nuclear Medicine • Nursing
- Paramedic Didactic Program
- Physical Therapist Assistant • Practical Nursing • Psychosocial Rehabilitation and Treatment
- Radiation Therapy • Radiography • Respiratory Care

Caring Healthcare

Helena Santos-Martins, M.D.
UCC Class of '91

Doctor of Internal Medicine
Cambridge Health Alliance –
an affiliate of Harvard Medical School

“When I arrived from Portugal, there were many skills I needed for success. If it hadn't been for UCC, I might not be where I am today. UCC put me on a great path and I'm still going!”

Learning English



Within sight of New York City located in the center of the immigration gateway of Elizabeth, New Jersey, the Union County College campus houses the UCC Institute for Intensive English. The Institute is the largest provider of English as a Second Language (ESL) instruction in the State of New Jersey. Students from 89 foreign nations and Puerto Rico are enrolled in the Institute. It offers a full-time program of concentrated instruction in English for speakers of other languages in order to enhance their English language abilities to further academic, career, and/or personal goals.



Business & Computer Programs

Technological advances and a global marketplace mean careers in the business world require more educational preparation than ever before. From economic theory to government compliance, business and industry demand that their employees have education and skills to compete in the modern marketplace. UCC can prepare you for the business world or for transfer to a 4-year school.

Choose from programs in:

- Accounting • Administrative Support • Business
- Business Management • Business Marketing • Computer Information Systems • Computer Science • Computer Science/Mathematics • Database Specialist • End-User Computing
- Help Desk Technology • Information Processing
- Information Systems Technology • Office Professional
 - Programming • Public Administration
 - Restaurant Management • Webmaster



Sharon and Cliff Freshwater
UCC Classes of '78 and '77
Owner/Operators – Freshwaters
Southern Cuisine, Plainfield, NJ

“ The education we received at UCC put us on track. Get the education and skills you need to live your dream ...

WE DID!!”



Building the Future

Engineering & Engineering Technologies

Engineers have changed our lives by making our visions become reality. With computers and other advanced technologies essential to daily life, the role of engineering and the engineer have taken on even greater significance. At Union County College, individuals who hope to find fulfillment in the beneficial development of structures and communities can take advantage of the high-quality programs that are offered in the field.

Choose from programs in:

- Architecture • Civil/Construction Engineering Technology • Computer Science Engineering • Electronics/ Electromechanical Engineering Technology • Engineering • Engineering Management • Environmental Science • Manufacturing Engineering Technology • Mechanical Engineering Technology



Law & Public Safety

Union County College is a leader in providing programs to prepare qualified public safety professionals. The John H. Stamler Police Academy, located on UCC's Scotch Plains campus is operated by the Union County Prosecutor's Office in cooperation with the College and the Union County Police Chiefs' Association. Many cross-registration opportunities exist for its students.

UCC also partners with the Union County Fire Science Training Academy in Linden, N.J. Operated by the Union County Fire Chiefs' Association and the Union County Fireman's Association for the training of fire-fighters within the County, graduates of the Academy are eligible to receive college credit and advanced standing upon matriculation to one of the College's Fire Science Technology majors.

Choose a program in:

- Bioterrorism and Homeland Security • Criminal Justice • Corrections • Fire Science Technology • Paralegal Studies



Science

The frontiers of scientific discovery are endless and career opportunities abound. UCC offers excellent programs in Biology, Chemistry, and Physical Science designed to prepare students for furthering their scientific explorations by pursuing a baccalaureate degree at a 4-year institution. The College is fortunate to offer the latest in laboratory facilities and equipment, much of which has been provided through the generous support of leading international scientific corporations such as Merck and Co. and Schering-Plough.

Choose from programs in:

- Biology • Biotechnology • Chemistry • Physical Science

Teaching is the highest form of understanding.

Aristotle



Education

No student can succeed without a firm foundation in the fundamentals of reading, writing, and arithmetic. Yet, a critical shortage of qualified teachers is predicted to develop over the next several years. Excellent teachers are the key to the future of our children and our society... teachers who are well schooled in their subject matter, well trained in the techniques of classroom instruction, and constantly open to expanding their knowledge and upgrading their skills.

Union County College offers excellent programs in Liberal Arts with a choice of two Education options. Dual Admissions and transfer agreements allow successful UCC graduates in Liberal Arts/ Education to continue their pursuit of a baccalaureate in education through transfer to a host of 4-year institutions.

YoU Can Change Your Life with a program in:

- Education (Grades Pre-K through 3)
- Education (Grades 4 through 12)



“My experiences at UCC were very rewarding. The education I received provides me with the knowledge I need to enter a four-year college and hopefully become an influential teacher in the near future.”

Dawn Sherese O'Grady, Winfield Park
UCC Class of '02, A.A., Liberal Arts/Education,
transfer to Kean University

(908)709-7518



UNION COUNTY COLLEGE VII

Q: WHAT'S THE ADVANTAGE to attending Union County College instead of starting out at a four-year college?

A: UCC focuses on the teaching and learning of all students. It provides access to an excellent higher education at an affordable cost, and its programs are relevant to the needs of our society in preparing students for productive lives and careers.

Q: WHAT DOES "OPEN ACCESS" MEAN?

A: UCC is an open access institution, however, all prospective students must take a placement test in English and Mathematics, or otherwise meet placement standards in those subjects. This test allows the College to identify students who may experience difficulty with college-level coursework and make sure that they begin their college experience enrolled in courses that will assist them in developing the necessary skills to succeed.

Q: BESIDES COURSES, WHAT DOES UCC OFFER?

A: UCC is known for its nurturing environment. Its counseling services are exceptional and one-on-one tutoring is available to all students through Academic Learning Centers on each campus. Class sizes are small, allowing students to receive individualized faculty attention. Unlike large four-year universities that frequently allow graduate students known as "teaching assistants" to conduct classes, all of UCC courses are taught by faculty members.

Q: ARE THERE SUPPORT SERVICES FOR STUDENTS WHO'VE BEEN AWAY FROM SCHOOL FOR A WHILE?

A: In addition to academic support, UCC offers a menu of class options, on four conveniently located campuses, that allow most students to find course offerings to fit their busy schedules. Classes are available mornings, afternoons, and weekends throughout the spring and fall semesters. Full credit can also be earned over shorter periods of time with fall and spring late start classes, a three-week winter session, and during summer sessions. Many classes are also taught online or through videotapes, providing students with the ultimate in scheduling flexibility.

Q: IS THERE ANY ECONOMIC ADVANTAGE TO ATTENDING AT UCC?

A: Tuition at Union County College for Union County residents is less than half the credit cost of attending 4-year colleges in this area of New Jersey. In addition, UCC's

Office of Financial Aid provides expert assistance in pursuing state, federal and private tuition assistance and financial aid for which students may be eligible. Union County residents entering the College as freshman who have a record of achievement in high school are also eligible for NJ STARS and the Freeholder Scholars Program, which provides free tuition to qualifying individuals pursuing an Associates degree.



Q: I WANT TO EARN A BACHELOR'S DEGREE, SHOULDN'T I GO TO A FOUR-YEAR SCHOOL?

A: Once you earn an Associates degree, you can easily transfer to a four-year college or university to complete your baccalaureate. UCC has negotiated over 50 agreements with colleges and universities throughout the nation that provide UCC graduates a seamless transfer to these schools with Junior year status. You are not limited by this list and UCC alumni have successfully transferred with advanced standing to more than 500 colleges and universities throughout the world.

Q: DO COMMUNITY COLLEGE GRADS MEASURE UP ACADEMICALLY once they transfer to a four-year college?

A: A national study has found that community college graduates who are seniors at four-year colleges achieve a Grade Point Average (GPA) substantially higher than their fellow seniors who have attended that college from the beginning of their freshman year.

Q: WHAT ELSE CAN I DO AT UCC?

A: Union County College has a wide array of activities for students. Men's and Women's intercollegiate athletic teams, cultural, service and social clubs and events, college radio station, student literary publications, and the Theater Project are just some of the exciting activities in which students can become involved beyond the classroom.

This catalog is filled with information about the programs, the courses, and the educational life of Union County College. To find out even more, visit us in person or go online to www.ucc.edu and learn how...

Yo ^{too}U Can C Change Your Life!
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Student Life

The education and skills students gain at Union County College are not acquired solely in the classroom, but from the totality of their college experience. The diversity of the UCC student body provides a rich community for cultural and intellectual exchanges and events. In addition to fielding championship athletic teams, the College supports an active Student Government Association (SGA) that sponsors multi-cultural events, activities, and performances both on campus and off. First-run movies, concerts, parties, and theatrical performances are available year-round to enrich the days spent at Union County College.



**UCC's 2003
Soccer Team
finished 2nd
in the nation!**

Sabine Georges
UCC SGA President
2000-2001

(908)709-7518

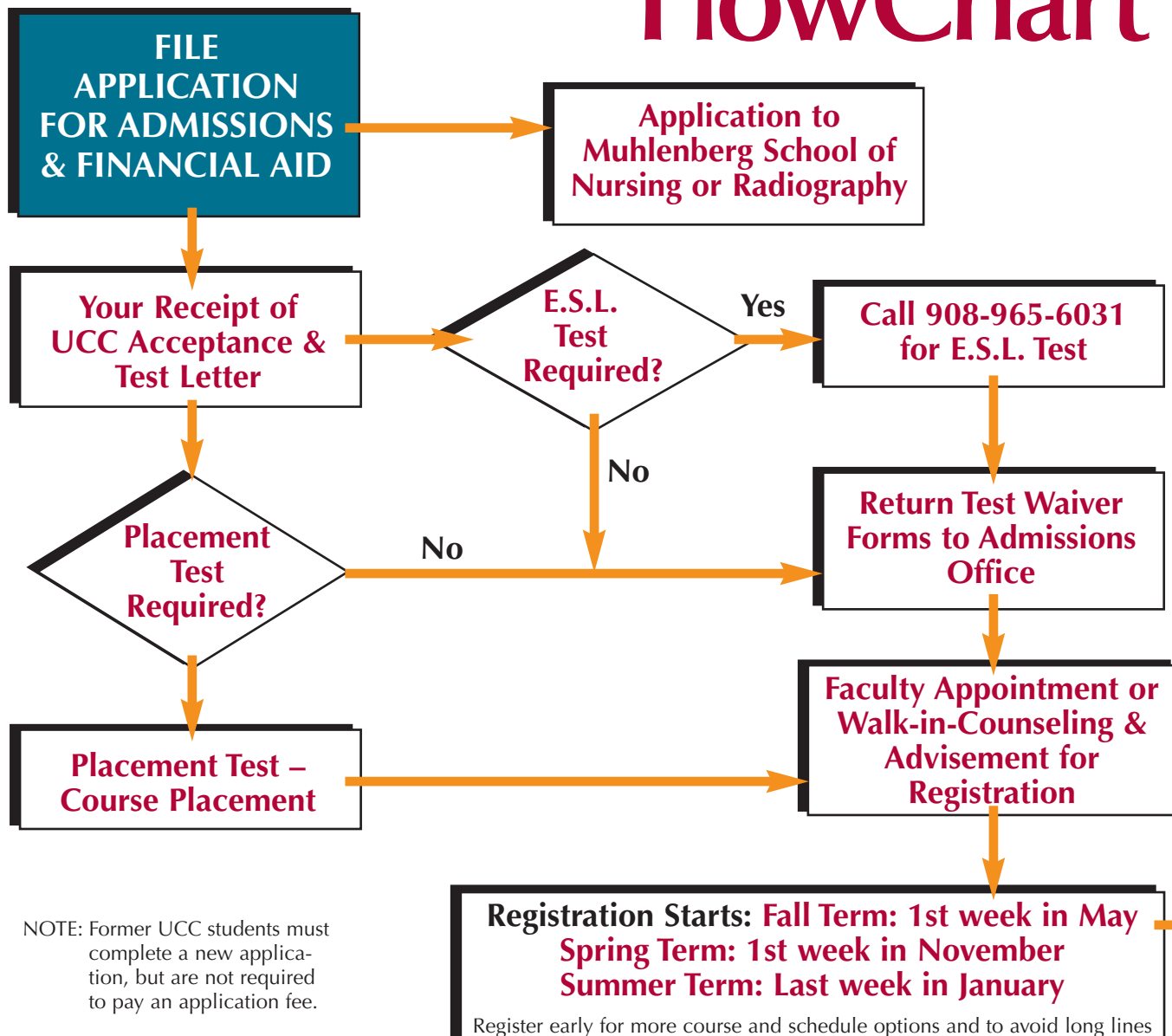


UNION COUNTY COLLEGE **IX**



Enrollment FlowChart

Start Here:



- **Students applying for financial aid must select a major.**
- **Placement testing is required for students pursuing a degree. If you have taken a placement test at another New Jersey institution, send your scores to Union County College's Assessment Center.**
- **If your first language is not English, ESL testing may be required in lieu of the placement test.**

1. Decide on the program you want to enroll into. Log into www.ucc.edu to research program options or review materials mailed to you. If still not certain, the best option may be the Liberal Arts program that would allow for the best transition into another program – provided that you file a Curriculum Change Form within the first/second semester. You should attend an Open House event, or see one of our Enrollment Specialists (Best Visit Time: Mon-Fri @ 11:30 AM) or call 908-709-7596 (Cranford) or 908-965-6050 (Elizabeth).

2. File an Application for Admission (\$25 – Check or Money Order - Former UCC students do not have to pay the fee). International Students requiring a student visa (F1) must have their application file complete by July 15 for the Fall (September) term and November 1 for the Spring (January) term.

3. After filing the application, be certain you send, or arrange to have sent, all of your educational documents – high school transcript/diploma, college transcript(s) if applicable, and your immunization record (if on hand – may also check w/HS nurse's office or family doctor). TRANSFER students seeking credit must request and complete a Credit Evaluation Form in-person or by request (908) 412-3550.

4. If seeking financial aid, file as early as possible. It takes weeks to process. International students on an F1 are ineligible. A free financial aid application is available through the Financial Aid Office. For the quickest response go <http://www.fafsa.ed.gov>. Should you require assistance, attend a Financial Aid Workshop at one of the UCC campuses – for details and dates go to http://www.ucc.edu/recruitment/fin_aid_workshops.htm UCC's SCHOOL CODE (required for filing): 002643

5. TESTING: Once you've been accepted, the Admissions Office will send you College Placement Test information. The information will provide test exemption criteria. If you are exempt, complete the Application for Exemption.

6. Students who do not have a strong command of the English Language may be required to enroll into the Institute for Intensive English prior to enrolling into a chosen program. Students that are identified as possibly needing this support will be contacted after the application has been submitted. Students also have the option of filing an application and selecting the IELTS (code) as their program.

7. When coming to the campus for an interview, or to test, or for any reason, pick up a catalog and get acquainted with UCC's history, academic policies, and student life. NOTE: Catalogs are not usually mailed.

8. Registration Counseling will take place within days (week) of testing. You will be informed of process.

9. Tuition payment is due when you register for classes. Full-time students (12 credits, usually 3-4 courses) should be prepared to pay \$1,130.00 (IN-COUNTY RATE which includes associated fees but not Books & Supplies). Out-of-County rate for 12 credits is approximately \$2,006.00 If you reside outside Union County, and your county college does not offer the program (or course) you wish to take at UCC, your tuition can be charged at an in-county rate. You'll need to file a Charge Back Form.

10. You should be prepared to spend approximately \$100 on books and associated supplies for each course registered for. Financial aid may be used towards the payment for books and supplies (voucher) provided that you have funding coming back to you after your payment on tuition and associated fees. File for Financial Aid early!

11. Start classes using the schedule you and your advisor developed. If you are unable to start in January or September, or would like to add a class, UCC has a Late Start schedule that begins several weeks after the start of the regular semester. Keep in mind that the Late Start term has limited course offerings.

12. CONGRATULATIONS ... YOU'RE ON YOUR WAY...

Investigate the many student athletic programs and student clubs you can join. This is a great way to get to know students and staff.

13. If you are seeking to transfer to a four-year college after graduation, the Office of Counseling Services can prepare you. Remember that UCC has dozens of agreements with major colleges and universities that will take your associates degree, in full, and have you continue your education as a Junior. As an enrolled student, it's worth a visit to the Transfer Coordinator in the Nomahegan Building on the Cranford campus.

YoU^{too} Can Change Your Life!

Student Accounts
(payment is due at the
time of registration)

Parking Permits
Public Safety

Book Vouchers 1st
at Book Store

Orientation

You Can Get There From UCC

AFTER GRADUATION ...

A vital part of Union County College's mission is to transfer its graduates with junior-year status to four-year colleges and universities throughout the United States and abroad. Over the years, the College has compiled an enviable record in carrying out this goal, as graduates have transferred to more than 500 colleges and universities throughout the world.

Articulation agreements are designed to facilitate transfer to specific colleges and programs, but our students are not limited to transferring only to these institutions. These agreements spell out the program a UCC student must follow to enter the receiving college or university with full Junior-year status.

And, UCC has unique Dual Admissions Agreements with these prestigious universities:

- **The Rutgers University Dual Degree Program (DDP)** provides New Jersey high school graduates with an opportunity to earn a baccalaureate degree at Rutgers University by first earning an associate's degree at Union County College.
- **NJ Institute of Technology:** UCC students who enroll in the joint admissions program between UCC and NJIT should be guaranteed admission into any of several parallel programs at NJIT provided they have completed an associate degree and fulfill all the necessary criteria of the dual admissions program.
- **Montclair State University** and UCC offer students in the Joint Admissions Program should be guaranteed admission as juniors in Anthropology, Classics, English, French, General Humanities, Geography, History, Italian, Justice Studies, Latin, Linguistics, Philosophy, Political Science, Psychology, Religious Studies, Sociology, Spanish or Women's Studies provided they complete an associate degree and fulfill the criteria of the dual admissions program.
- UCC students who enroll in the Joint Admission Program with UCC and **Kean University, New Jersey City University or Fairleigh Dickinson University** should be guaranteed admission as juniors to these Universities provided they complete an associate degree and fulfill the criteria of the joint admissions program.

“For me, UCC was life saving – a **MUST DO**. Without a UCC education I could not have become the person I want to be.”



UCC GRADUATE RECEIVES BACCALAUREATE FROM IVY LEAGUE UNIVERSITY

Ernest T. Caldwell, Jr. graduated from Union County College in May of 2002. Just two years later, he was part

of another graduation ceremony in which he was awarded a baccalaureate degree in education from Brown University in Providence, R.I. Caldwell's completion of a bachelor's degree in two short years after attending UCC, is testament not only to his abilities, but to the quality of education and transferability of the credits which he earned here.

But Caldwell is not done yet. He has already been accepted into a graduate program at Brown University, where he will earn his Masters Degree in Teaching and then move on to a Ph.D. program.



Ernest T. Caldwell, Jr.
Plainfield, NJ
UCC Class of '02
Brown University Class of '04

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UNION COUNTY COLLEGE

offers two-year programs leading to the Associate in Arts, Associate in Science, and the Associate in Applied Science degrees, and programs leading to the Certificate and to the Diploma. The course requirements for each program are outlined in this catalog.

All matriculated students, whether they plan to transfer to a four-year institution or complete their college careers at the end of their programs, are eligible for the Associate degree, the Certificate, or the Diploma if all graduation requirements set forth in this catalog have been met. The program outlines are offered as guidelines and courses do not necessarily need to be taken in the order suggested. Please note, however, that many courses require prerequisites or corequisites.

Academic Programs are subject to change. Students should contact the office of the vice president for academic affairs for the most current information.

THE ASSOCIATE IN ARTS

The programs leading to the Associate in Arts degree parallel those offered in the freshman and sophomore years at four-year institutions, and students who satisfactorily complete their chosen programs will be able to continue their college education into their junior and senior years at four-year colleges or universities. The Associate in Arts degree is conferred upon completion of one of the following two-year programs:

- American Sign Language and Deaf Studies
- Biology
- Business with options in Computer Information Systems and Public Administration
- Communications with options in Desktop Publishing, Film, Multimedia, Print Journalism, Public Relations, Radio, and Television
- Computer Science/Mathematics
- Criminal Justice
- Gerontology
- Liberal Arts with options in American Studies, Computer Science/Mathematics, Early Childhood Education (PreK-3), Education (Grades 4-12), Fine Arts (drama, graphics, illustration, music, photography, and visual arts), Psychology, International Studies, and Urban Studies
- Physical Science
- Women's Studies

THE ASSOCIATE IN SCIENCE

The Associate in Science degree is conferred upon the completion of the following programs:

- Architecture, Computer Science, Environmental Science, Engineering Management (offered as options through Engineering program)
- Emergency Health Services
- Engineering
- Liberal Studies (Exploring Science and the Arts)
- Psychosocial Rehabilitation and Treatment
- Information Systems Technology
- Radiation Therapy
- Respiratory Care
- Restaurant Management (joint degree with Fairleigh Dickinson University)
- Cooperative Program in Professional Nursing in affiliation with Trinitas School of Nursing
- Cooperative Program in Professional Nursing in affiliation with Muhlenberg Regional Medical Center Harold B. and Dorothy A. Snyder Schools
- Amplified Radiography Program in affiliation with Muhlenberg Regional Medical Center Harold B. and Dorothy A. Snyder Schools
- Cooperative Program in RN Completion for Licensed Practical Nurses in affiliation with Trinitas School of Nursing and Muhlenberg Regional Medical Center Harold B. and Dorothy A. Snyder Schools

Students who earn the Associate in Science in the Cooperative Nursing Programs and in the Amplified Radiography Program can expect that, upon evaluation of their program, advanced standing for selected courses may be granted by receiving institutions.

THE ASSOCIATE IN APPLIED SCIENCE

The Associate in Applied Science degree is conferred upon the completion of the following programs:

- Accounting
- Administrative Support
- Administrative Support (Information Processing Option)
- American Sign Language-English Interpreting
- Business Management
- Business Marketing
- Civil/Construction Engineering Technology
- Computer Science
- Dental Hygiene (joint degree with University of Medicine and Dentistry)
- Electronics/Electromechanical Engineering Technology
- Fire Science Technology
- Game Design Development
- Health Sciences
- Help Desk (Technology Support Specialist)
- Manufacturing Engineering Technology
- Mechanical Engineering Technology
- Nuclear Medicine
- Paralegal
- Physical Therapist Assistant
- Respiratory Care

THE DIPLOMA

The Diploma is conferred upon completion of the Practical Nursing and Radiation Therapy programs. Various courses in the Diploma program are equivalent to courses required in various Associate Degree programs.

THE CERTIFICATE

The Certificate is conferred upon completion of the following programs:

- American Sign Language and Deaf Studies
- American Sign Language-English Interpreting
- Biotechnology
- Bioterrorism and Homeland Security
- Corrections
- Criminal Justice
- Database Specialist
- Deaf/Blind Interpreting
- Dental Assisting
- Electrology
- End User Computing
- English for Speakers of Other Languages
- Fire Science Technology
- Gerontology Activities
- Information Processing
- Interpreting Spoken Language
- Marketing, Advertising, and Design
- Massage Therapy
- Multimedia Development
- Office Professional
- Paramedic
- Programming
- Public Policy
- Respiratory Care
- Webmaster

COURSE SUBSTITUTIONS AND WAIVERS

While the course requirements specified in the following curriculum descriptions are normally required, students may request to waive or substitute courses which are available infrequently. Students wishing to do so should see the appropriate program coordinator, department chairperson, provost or vice president for academic affairs.

YOUR GUIDE TO UCC'S PROGRAMS OF STUDY

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ACCOUNTING

ASSOCIATE IN APPLIED SCIENCE DEGREE

Graduates of this Associate in Applied Science degree program are prepared for employment as junior accountants with large corporations. The program provides some of the needed academic background for a C.P.A.

Graduates may seek employment in industrial or general accounting or work in areas such as credit, collections (internal), governmental accounting, or payroll supervision. The program may be a "stepping stone" to law or employment with the Treasury Department or the Justice Department. Transfer of credits to a four-year college is conditional upon the receiving college or university. You should consult with the Program Coordinator prior to submitting applications.

See paragraph "Qualifications for Admission to Degree Programs" for desired high school backgrounds (see page 214).

The specific objectives of this program are that the graduate must be able to demonstrate:

- the ability to communicate effectively personally in the community and in a corporate or business setting;
- the ability to comprehend the underlying framework of accounting concepts and data;
- an understanding of all the segments of the accounting cycle and how they interrelate with each other;
- the ability to prepare a set of books and records (both manually and computerized) from the beginning analysis of transactions through the completion of financial statements;
- the ability to prepare Federal and New Jersey State Individual and Corporate Income Tax Returns;

- the ability to operate the computer to perform diversified accounting activities;
- the ability to prepare sales and payroll tax returns;
- the ability to understand and apply accounting data for managerial applications;
- the ability to understand the role of economic principles as they relate to accounting;
- the ability to understand generally accepted accounting principles and be able to apply them functionally in accounting;
- the ability to understand and apply the principles of corporate accounting;
- the ability to prepare a statement of cash flow;
- the ability to understand the principles of Job Order and Process Cost Accounting;
- the ability to understand the principles for budgeting;
- the ability to understand the basics of business law principles, including contracts and the Uniform Commercial Code;
- the ability to understand and appreciate the role of general business concepts in a global context.

WHERE YOU CAN GO FROM HERE

Graduates work as junior staff accountants, bookkeepers, loan service representatives, tax preparation assistants, credit and collection associates, and junior financial analysts.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
ACC 103	Accounting I	4		4
BUS 105	Organization & Management	3		3
CIS 100*	Intro to Computer Applications	2	2	3
ENG 101	English Composition I	3	1	3
MAT 119	Algebra	3		3
				16

SECOND SEMESTER

ACC 104	Accounting II	4		4
ECO 201	Principles of Economics I	3		3
ENG 122	Introductory Technical & Business Writing	3		3
MAT 127	Elementary Statistics	4		4
				14

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
ACC 203	Intermediate Accounting I	4		4
ACC 211	Federal Taxes I	4		4
BUS 201	Business Law I	3		3
ACC 210	Microcomputers in Accounting	2	2	3
Humanities (Must be chosen from Literature, Fine Arts, History, or Modern Languages)				3
				17

SECOND SEMESTER

ACC 204	Intermediate Accounting II	4		4
ACC 205	Cost Accounting	4		4
ACC 212	Federal Taxes II	2	1	2
ACC 290	Co-op Ed Experience			3
BUS 202	Business Law II	3		3
				16

*CIS 100 has a prerequisite of ADM 101.

ADMINISTRATIVE SUPPORT

ASSOCIATE IN APPLIED SCIENCE DEGREE

This is a comprehensive two-year Associate in Applied Science degree program which prepares the graduate to develop a high degree of administrative support competence with personal qualities to satisfy the most exacting business standards. The program covers both the basic administrative management skills as well as advanced training for the achievement of professional status.



See paragraph "Qualifications for Admission to Degree Programs" for desired high school background (see page 214). Typing test is required.

Challenge exams for shorthand and keyboarding are given to those students who qualify.

The specific objectives of this program are that the graduate must be able to demonstrate:

- critical thinking and problem solving;
- professional communication skills;
- the ability to manage time effectively, including the ability to establish priorities;
- the ability to keyboard at acceptable speeds/accuracy using correct document formatting;
- the ability to take notes and transcribe them in correct format using correct grammar and punctuation;
- the ability to use appropriate application packages including word processors, spreadsheets, and professional presentations;
- the ability to perform the necessary elements of running an office effectively;
- the ability to work independently.

AFTER UCC

Graduates will have developed a high degree of administrative support competence with personal qualities to satisfy the most exacting business standards. The program covers both the basic administrative management skills as well as advanced training for the achievement of professional status.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
ENG 101	English Composition I	3	1	3
MAT 113	Business Mathematics	3		3
ADM 103	Shorthand I (Superwrite)	3	2	4
ADM 102	Keyboarding for the Computer II	2	3	2
ADM 131	Administrative Procedures	3		3
				15

SECOND SEMESTER

ENG 122	Intro Technical and Business Writing	3	1	3
ADM 104	Shorthand II	3	3	4
ADM 122	Intermediate Keyboarding	2	3	3
BUS 101	Intro to Contemporary Business	3		3
Elective		3		3
				16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
ACC 103	Accounting I	4		4
ADM 123	Advanced Keyboarding	1	6	3
ADM 213	Word I	2	3	3
ADM 217	PowerPoint	2	2	3
Elective	Humanities			3
				16

SECOND SEMESTER

ENG 129	Public Speaking	3		3
ADM 215	Excel I	2	2	3
Electives	Technical **			6
Elective	Social Science***			3
				15

** Choose from:

ADM 135 ADM 220
ADM 214 or ADM 290
ADM 216

***Choose from the following Social Science courses:

BUS 105 ECO 201
BUS 201 ECO 202
BUS 202

ADMINISTRATIVE SUPPORT

(INFORMATION PROCESSING OPTION) ASSOCIATE IN APPLIED SCIENCE DEGREE

The Associate in Applied Science degree program in Administrative/Information Processing prepares the student to become a necessary part of the office. The program provides a strong background in general education courses, business courses, and technology courses using up-to-date software. Students learn the importance of taking notes and transcribing them into professional documents, file management, administrative procedures, developing excellent keyboarding skills, document processing, and decision making.



The specific objectives of this program are that the graduate must be able to demonstrate:

- critical thinking and problem solving skills;
- professional communication skills;
- the ability to manage time effectively, including the ability to establish priorities;
- the ability to use appropriate application packages including word processors, spreadsheets, database management, and professional presentations;
- the ability to communicate effectively using E-mail and the Internet;
- the ability to produce professional copy using correct document formatting and procedures;
- the ability to keyboard at acceptable speeds/accuracy;
- the ability to work independently.

WHERE YOU CAN GO FROM HERE

Graduates will work in office administrative positions in various business settings.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER.				
ENG 101	English Composition I	3	1	3
MAT 113	Business Mathematics	3		3
ADM 103	Shorthand I (Superwrite)	3	2	4
ADM 102	Keyboarding for the Computer II	1	2	2
ADM 131	Administrative Procedures	3		3

15

SECOND SEMESTER

ENG 122	Intro Technical and Business Writing	3		3
ADM 213	Word I	2	3	3
ADM 122	Intermediate Keyboarding	2	3	3
BUS 101	Intro to Business	3		3
ADM 135	Proofreading and Editing Skills	3		3

15

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
ACC 103	Accounting I	4		4
ADM 217	PowerPoint	2	2	3
ADM 214	Word II	2	3	3
ADM 123	Advanced Keyboarding	1	3	3
Elective	Humanities			3

16

SECOND SEMESTER

ENG 129	Public Speaking	3		3
ADM 215	Excel I	2	2	3
ADM 216	Access	2	2	3
CIS 120	The Internet	2	2	3
Elective		3		3
Elective	Social Science**	3		3

18

****Choose from the following Social Science courses:**

BUS 105	ECO 101
BUS 201	ECO 202
BUS 202	

AMERICAN SIGN LANGUAGE AND DEAF STUDIES

ASSOCIATE IN ARTS DEGREE*

The American Sign Language & Deaf Studies Degree Program is designed for individuals who do not have a college degree and are interested in the field of Deaf Studies, linguistics, communications, psychology, social work, rehabilitation, education of the Deaf and other related areas. The program provides a multi-disciplinary and interdisciplinary approach in American Sign Language and Deaf Studies. Areas of scholarly pursuit include cultural and historical studies, linguistic examination, and literary analysis, as well as the study of the language in its conversational form. Graduates will be prepared for entry-level positions working with Deaf persons or transfer to four-year degree programs. This program can be completed either as a part-time or full-time student in a day or evening program.

Students are admitted to the ASL and Deaf Studies Program when they have demonstrated English competency and have satisfactorily completed the two semesters of the Pre-entry-level. Students are required to have satisfactorily completed ENG 101 and ENG 102 before taking ASL 201 (ASL 3) and ASL 205 (Linguistics of ASL).

Deaf and Hard of Hearing students are encouraged to participate in this program.

GENERAL PROGRAM REQUIREMENTS:

A grade of 'A', 'B', or 'C' in ASL 101, ASL I and ASL 102, Visual Gestural Communications meets satisfactorily the prerequisite requirement to enroll in ASL 103, ASL II, ASL 104, Classifiers and Visual Imagery, and HUD 104 Fingerspelling. A grade of 'D' or 'F' in one of these courses does not allow the student to take the course sequences. The course(s) may be repeated once as this is the policy of Union County College.

A grade of 'A' or 'B' in ASL 103, ASL 104 and HUD 104 meets the prerequisites for ASL&DS and IDP. In proceeding courses (ASL 201, ASL 202, ASL 203, ASL 205, ASL 208, ASL 210) a grade of 'C' necessitates a conference with the instructor(s) and coordinator for consultation. A 'C' in more than one of these courses disqualifies the student from continuing in the program. A grade of 'D' or 'F' disqualifies the student from entry into or continuation of ASL&DS and ASL – English Interpreting Program.

Conferences with respective instructor(s) and coordinators are by appointment only. Information about the American

Sign Language & Deaf Studies and Interpreters for Deaf Programs may be obtained at the ASL&DS and AEIP office or the counseling office at the Plainfield Campus.

The specific objectives of this program are that the graduate must be able to demonstrate:

- proficiency in the practices of communication with members of the Deaf community;
- competency in the use of American Sign Language and English;
- knowledge of the studies of American Sign Language as a distinct modern language, including scholarly pursuit of cultural and historical studies, linguistics and literacy analysis, as well as the language in its conversational and discourse styles;
- understanding of the social and cultural characteristics of American Deaf Culture, general and diverse American culture;
- understanding of the psychological and social factors affecting diverse populations within the Deaf community;
- effective written, spoken, and signed communication skills;
- ability to learn independently and to direct his/her own learning;
- critical thinking and problem solving skills, with emphasis on using community resources to solve specified problems;
- awareness of one's rights and responsibilities as a professional and/or a citizen in a world community.

WHERE YOU CAN GO FROM HERE

Graduates will be prepared for entry-level positions working with Deaf persons or for transfer to four-year degree programs.

* A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE +

PRE-ENTRY-LEVEL

COURSE#	COURSE	LEC.	LAB	Cr.
FALL SEMESTER				
ASL 101	American Sign Language I	3.5	1.5	4
ASL 102	Visual-Gestural Communication Techniques	1.5	1.5	2
ENG 101	English Composition I*	3	1	3
				9

SPRING SEMESTER				
ASL 103	American Sign Language II	3.5	1.5	4
ASL 104	ASL Classifiers	1.5	1.5	2
ENG 102	English Composition II*	3	1	3
HUD 104	Fingerspelling	0.5	1.5	1
				10

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FALL SEMESTER				
ASL 201	American Sign Language III	2	3	3
ASL 205	Linguistics of American Sign Language	3		3
SOC 101	Principles of Sociology	3		3
PSY 101	General Psychology	3		3
				12

SPRING SEMESTER				
ASL 202	American Sign Language IV	2	3	3
ASL 208	American Deaf Culture	3		3
FIA 205	Intro to Drama	3		3
MAT 117	Intro to Math Ideas	3		3
PSY 207	Social Psychology	3		3
				15

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FALL SEMESTER				
ASL 203	American Sign Language V	3		3
ENG 128	Dynamics of Communication	3		3
ENG 216	Contemporary Literature*	3		3
HIS 201	Intro To Western Civilization I	3		3
PSY 105	Group Dynamics	3		3
				15

SPRING SEMESTER				
ASL 210	ASL/Deaf Literature	3		3
BIO 101 or 102	Biology	3	3	4
GOV 201	American Govt. & Politics	3		3
Elective	Humanities	3		3
SOC 206	Minorities in American Life	3		3
				16

+ This track is designed for those who are full time students. The track may differ for those who are part-time students.

* English courses (ENG 101 and ENG 102) must be completed before taking ASL 201.

AMERICAN SIGN LANGUAGE – ENGLISH INTERPRETING

ASSOCIATE IN APPLIED SCIENCE DEGREE

The American Sign Language-English Interpreting Program is designed for individuals who are interested in the field of American Sign Language-English Interpreting. The program provides a multi-disciplinary and interdisciplinary approach of instruction. The five-semester program (after the pre-entry-level is completed) is designed to equip students with knowledge and skills for entry-level sign language interpreting. Areas of scholarly pursuit include cultural and historical studies, linguistic examination, and literary analysis, as well as the study of the language in its conversational form. The courses within the program are geared to preparing students for evaluation for certification through the National Association of the Deaf – Registry of Interpreters for the Deaf National Interpreters Certificate. Graduates will be prepared for entry-level interpreting positions working with Deaf persons or transfer to four-year degree programs. This program can be completed either as a part-time or full-time student in a day or evening program.



Students are admitted to the American Sign Language-English Interpreting Program when they have demonstrated English competency and have satisfactorily completed the Pre-entry-level courses of American Sign Language.

The specific objectives of this program are that the graduate must be able to demonstrate:

- proficiency in the practices of communications with members of the Deaf community;
- competency in the use of American Sign Language and English;
- knowledge of the studies of American Sign Language as a distinct modern language, including scholarly pursuit of cultural and historical studies, linguistics and literary analysis, as well as the language in its conversational and discourse styles;
- understanding of the psychological and social factors affecting diverse populations within the Deaf community;
- knowledge of the ethical and professional standards of interpreters working in the field with Deaf and Hard of Hearing persons;
- understanding of types of interpretation and translations and the process of interpretation through the use of theoretical models;
- requisite skills and process tasks of American Sign Language-English interpretation;
- understanding of the field of interpretation from an historical perspective;
- understanding of contemporary issues in the field of interpreting and the Deaf community;
- effective written, spoken, and signed communication skills;
- the ability to learn independently and to direct his/her own learning;
- critical thinking and problem solving skills, with emphasis on using community resources to solve specific problems;
- awareness of one's rights and responsibilities as a professional and/or a citizen in a world community.

GENERAL PROGRAM REQUIREMENTS:

A grade of 'C' or better in ASL 101, ASL I and ASL 102, VGC I meets satisfactorily the prerequisite requirement to enroll in ASL 103, ASL II, ASL 104, VGC II, and HUD 104 Fingerspelling

A grade of 'B' or better in ASL 103, ASL 104 and HUD 104 meets the pre-requisites for ASL&DS and IDP. In proceeding courses (ASL 201, ASL 202, ASL 205, ASL 208, ASL 210, HUD 105, HUD 106, HUD 103, HUD 108, HUD 215 and HUD 216) a grade of 'C' necessitates a conference with the instructor(s) and coordinator for consultation. A 'C' in more than one of three courses disqualifies the student from continuing in the program. A grade of 'D' or 'F' disqualifies the student from entry into or continuation of ASL&DS and ASL-English Interpreting Program.

Entry to third-year courses (HUD 108, HUD 106 and HUD 215) will be based on 'B' or better grades and demonstration of proficiency via examination. Permission to do Field Experience in Interpreting (HUD 216) will be based on demonstration of proficiency via examination and instructor of HUD 216.

AFTER UCC

Graduates will be prepared for entry-level interpreting positions working with deaf persons or for transfer to four-year degree programs.

RECOMMENDED SEQUENCE +**PRE-ENTRY-LEVEL****(One year required before entry into program)**

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ASL 101	American Sign Language I	3.5	1.5	4
ASL 102	Visual-Gestural Communication Techniques	1.5	1.5	2
ENG 101	English Composition I*	3	1	3
				9
SPRING SEMESTER				
ASL 103	American Sign Language II	3.5	1.5	4
ASL 104	ASL Classifiers	1.5	1.5	2
ENG 102	English Composition II*	3	1	3
HUD 104	Fingerspelling	0.5	1.5	1
				10

FIRST YEAR**(Five semester Program)**

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ASL 201	American Sign Language III	2	3	3
ASL 205	Linguistics of American Sign Language	3		3
MAT 117	Intro to Math Ideas	3		3
HUS 101	Community Resources in Human Services	3		3
PSY 101	General Psychology	3		3
				15
SPRING SEMESTER				
ASL 202	American Sign Language IV	2	3	3
ASL 208	American Deaf Culture & History	3		3
HUD 105	Interpreting Processes: Theory and Practice	2.5	1.5	3
HUS 201	Externship in Human Services	3		3
SOC 101	Principles of Sociology	3		3
				15

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
GOV 201	American Govt. And Politics	3		3
HUD 103	Text/Discourse Analysis for Interpreting	3		3
HUD 108	ASL to English Interpreting	2	2.5	3
Elective	Humanities	3		3
				12
SPRING SEMESTER				
BIO 101 or 102	Biology	3	3	4
HUD 106	English to ASL Interpreting	3	1	3
HUD 110	Interpreting Role and Ethics	3		3
HUD 215	Advanced Techniques of Interpreting			2
				12
FALL SEMESTER (FIFTH SEMESTER)				
HUD 109	Prev Measures Against CTD in Interpreting			1
HUD 216	Field Work in Interpreting			3
				4

+ This track is designed for those who are full time students.
The track may differ for those who are part-time students or not taking all the courses as suggested in the track.

* English courses must be completed before taking ASL 201.



AMERICAN STUDIES

(OPTION OFFERED THROUGH LIBERAL ARTS)
ASSOCIATE IN ARTS DEGREE[‡]

The American Studies Option provides opportunities for students who wish to understand the richness and diversity of American culture. This option offers a solid foundation in American history, politics, and literature accompanied by the study of related areas in the American experience. For many professions, such as teaching and law, this general education background is essential. In addition, the American Studies Option is also recommended to students who enter college without a definitive vocational goal and wish to explore the opportunities offered by many fields before deciding upon a career.



The specific objectives of this program are that the graduate must be able to demonstrate:

- an understanding of some of the major concepts in the areas of American history, politics, and literature;
- the ability to think critically about some of the major political issues that concern our nation today;
- an appreciation of the contributions that some American authors have made to developments in literature;
- sensitivity to the problems faced by some of the various groups that have made up the American experience, i.e. slaves, immigrants, native Americans;
- familiarity with how knowledge of the humanities and the social sciences enables an individual to better appreciate the kinds of cultural developments that have taken place in America;
- an ability to communicate clearly in both the spoken and written word.

WHERE YOU CAN GO FROM HERE

Graduates can transfer to a four-year college or university and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

[‡] A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
---------	--------	------	-----	-----

FIRST SEMESTER

ENG 101	English Composition I	3	1	3
HIS 101	Intro to Western Civilization I	3		3
Lab Science+ or Mathematics*				3-4
PSY 101	General Psychology3			3
COM** or FIA** or Modern Languages				3

15-16

SECOND SEMESTER

ENG 102	English Composition II	3	1	3
HIS 102	Intro to Western Civilization II	3		3
Lab Science+ or Mathematics*				3-4
PSY 102	Psychology of Personality	3		3
COM** or FIA** or Modern Languages				3

15-16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
---------	--------	------	-----	-----

FIRST SEMESTER

ENG 207	American Literature I	3		3
ECO 201	Principles of Economics I	3		3
HIS 201	U.S. History to 1865	3		3
GOV 201	American Government & Politics	3		3
SOC 101	Principles of Sociology	3		3
Elective***		3		3

18

SECOND SEMESTER

ENG 208	American Literature II	3		3
ECO 202	Principles of Economics II	3		3
HIS 202	U.S. History Since 1865	3		3
GOV 202	American National Government	3		3
SOC 206	Minorities in American Life	3		3
Elective***		3		3

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+A one-year science sequence is recommended.

*MAT 117 or higher, see Liberal Arts Program guidelines under Mathematics course listings.

** See COM or FIA list of electives.

***It is suggested that the American Studies student choose electives from the following list:

ASL 101, 102	COM 109, 209	HIS 105, 106
ASL 103, 104	CRJ 101, 205	HIS 215
ASL 208	ECO 205, 207	HRS (ALL)
AST 101, 102	ENG 128, 129	MAT 127
BIO 101, 102	ENG 227, 228	MAT 161, 162
BIO 103, 104	FIA 108, 111	PHI 205
BIO 109, 113	FIA 112, 117	PHY 101, 102
BIO 114, 118	FIA 120	PSY 105, 207
CHE 101, 102	GEY 101, 102	SOC 102, 205
CHE 106	GOV 203, 204	SOC 213
COM 101, 201	GOV 208	URS 101
	MOD. LANGUAGES (ALL)	



ARCHITECTURE

(Option offered through Engineering Program)
ASSOCIATE IN SCIENCE DEGREE[‡]

This program is designed to prepare students who plan for a career in architecture to transfer to a five- year baccalaureate program.

The specific objectives of this program are that the graduate must be able to demonstrate:

- critical thinking and problem solving skills in science, mathematics, and fundamentals of architecture;
- computer literacy in programming and use of word processing, and other software applications;
- an ability to use technology and library resources to research information related to architecture, mathematics, engineering, the humanities, and social science;
- an ability to communicate effectively by written, oral and graphical methods;
- an understanding of materials and methods of building construction, basics of structural analysis/design related to architecture, collect and analyze relevant data, and work as a member of a team;
- an appreciation of the need for a broad and liberal education and understand the impact of architectural solutions in a global/societal context;
- implementation of skills learned in architecture, science, social sciences, and the humanities into collaborative design projects for/with local communities;
- an ability to learn independently and an appreciation of the need for lifelong learning in the architectural field.



WHERE YOU CAN GO FROM HERE

Graduates of the Architecture program who plan for a career in Architecture transfer to a five-year baccalaureate program.

[‡] A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
ARC 101	Architectural Design I	3	5	5
ARC 105	Intro to Architecture and Culture	3		3
ENG 101	English Composition I	3	1	3
FIA 119	History of Architecture I	3		3
FIA 109	Drawing I	1	4	3
				17

SECOND SEMESTER

ARC 102	Architectural Design II	3	5	5
ENG 102	English Composition II or			
ENG 122	Introductory Technical and Business Writing	3	1	3
FIA 120	History of Architecture II	3		3
FIA 121	Architectural Graphics/ Perspective	1	4	3
MAT 143	Elementary Mathematical Analysis I*	4		4
				18

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
ARC 205	Architectural CAD Design	2	3	3
CSC 100	Computer Programming Fundamentals	2	2	3
CSC 101	Computer Algorithms or	2	3	3
PHY 101	General Physics I	3		3
PHYL 101	General Physics Laboratory I	3	1	
ARC 224	Structural Design I	3		3
ARC 216	Materials & Construction I	1	2	2
MAT 144	Elementary Mathematical Analysis II*	4		4
				19

SECOND SEMESTER

ARC 206	Architectural 3D Design	2	3	3
PHY 102	General Physics II	3		3
PHYL 102	General Physics Laboratory II		3	1
ARC 225	Structural Design II	3		3
ARC 217	Materials and Construction II	1	2	2
ARC 210	Portfolio Development & Presentation Methods	1	3	2
Elective	Social Science			3
				17

*MAT 171, MAT 172 recommended for some transfer institutions. Consult with architecture faculty member.

BIOLOGY

ASSOCIATE IN ARTS DEGREE[‡]

The Biology Department offers a degree program that combines basic biological courses with additional course work in chemistry, mathematics, and the liberal arts. The degree program prepares students primarily for advanced study at a four-year institution. Students should note that the Department has many articulation agreements with four-year colleges designed to facilitate transfer to these institutions.

Candidates for the program should present two years of high school algebra, one year of geometry or trigonometry, one year of biology, and one year of chemistry. High School Physics is also strongly recommended.

The specific objectives of this program are that the graduate must be able to demonstrate:

- an understanding of the scientific method and be able to utilize it to understand the real world;
- an understanding of living organisms as part of the world and their impact upon the world;
- an understanding of the terminology, concepts and principles of biology;
- an understanding of chemical relationships to biology;
- an understanding and appreciation of how biological issues have a local, national, and global impact on human beings;
- an appreciation of the positive and negative impact of biological advancements;

- a proficiency in utilizing basic laboratory and field methods, equipment and techniques;
- the ability to use the computer as a research and learning tool;
- the ability to utilize critical thinking skills to solve and understand problems;
- the ability to communicate effectively with others in a diverse society;
- the ability to continue to learn independently;
- an understanding and appreciation of the diversity of the living world.



AFTER UCC

Graduates can prepare for a career in biology or for advanced study at a four-year institution. The Biology Department has many articulation agreements with four-year colleges designed to facilitate transfer to these institutions.

[‡] A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
BIO 111	The Biology of the Organism	3	3	4
CHE 111	General Chemistry I	3	3	4
ENG 101	English Composition I	3	1	3
MAT 143	Elementary Mathematical Analysis I or			
MAT 171	Unified Calculus I			4
				15

SECOND SEMESTER

BIO 112	Cell Biology	3	3	4
CHE 112	General Chemistry II	3	3	4
ENG 102	English Composition II	3	1	3
MAT 144	Elementary Mathematical Analysis II or			
MAT 172	Unified Calculus II			4
Elective	Humanities			3
				18

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
Electives	Biology (2)			7-8
Elective	History			3
Elective	Social Science			3
Elective	Communications			3
				16-17

SECOND SEMESTER

Elective	Biology			3-4
CIS 100	Intro to Computer Applications	2	2	3
Elective	Humanities			3
Elective	Diversity			3
Elective	History			3
				15-16

BUSINESS

ASSOCIATE IN ARTS DEGREE*

The Associate in Arts Degree in Business prepares students for a career in business or for advanced study at a four-year institution. The College has many articulation agreements with four-year colleges designed to facilitate transfer to these institutions. For further information, please see the Transfer Counselor. The degree requirements consist of general education requirements and electives in preparation for a major area of study.



See paragraph "Qualifications for Admission to Degree Program" for desired high school background (see page 214).

The specific objectives of this program are that the graduate must be able to demonstrate:

- the ability to establish and maintain accounting systems;
- knowledge of the principles and practices of American business;

- knowledge of the principles of microeconomics and macroeconomics;
- the ability to perform statistical procedures common to American business;
- critical thinking, problem solving skills, and effective communication skills;
- an awareness of and concern for the ethical implications of institutional policies and individual practices;
- an awareness of the diverse factors that shape the world in order to keep pace with the changing society;
- the ability to use technology for learning and research;
- the ability to learn independently and to direct one's own learning.

AFTER UCC

Students in this program complete the first two years of their baccalaureate program with a solid background in accounting, management and marketing. Graduates transfer to senior colleges and universities and can take advantage of articulation agreements negotiated with senior receiving institutions.

* A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
ACC 103	Accounting I	4		4
ENG 101	English Composition I	3	1	3
HIS 101	Intro to Western Civilization I ***or			
	Modern Language***	3		3
MAT	Mathematics*	3		3-4
PSY 101	General Psychology	3		3
				16-17

SECOND SEMESTER				
ACC 104	Accounting II	4		4
BUS 101	Intro to Contemporary Business	3		3
ENG 102	English Composition II	3	1	3
HIS 102	Intro to Western Civilization II ***or			
	Modern Language***	3		3
PSY 102	Psychology of Personality or			
SOC 101	Principles of Sociology	3		3
				16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
CIS 101	Intro to Information Systems**	2	2	3
ECO 201	Principles of Economics I	3		3
ENG	200-Level Literature Course	3		3
Elective	Laboratory Science+	3	3	4
Elective	Business			3
				16

SECOND SEMESTER				
BUS 201	Business Law I	3		3
ECO 202	Principles of Economics II	3		3
MAT 146	Brief Calculus with Applications or			
MAT 246	Business Statistical Analysis			3-4
Elective	Humanities			3
Elective	Laboratory Science+	3	3	4
				16-17

Students are encouraged to contact the specific institution as to transfer credit for the following business electives offered:

ACC 203, 204, 211, CIS 102, 201, PSY 102, BUS 105, 106, 107, 203, 205, 208, MAT 146, 246, SOC 101

*See advisor to choose an appropriate mathematics course.

**CIS 100 may be preferred by some institutions to CIS 101. Students should ascertain which course is preferred by the institution they plan to transfer to.

***Must be a one year sequence in either.

+One year laboratory science sequence is recommended.



BUSINESS MANAGEMENT

ASSOCIATE IN APPLIED SCIENCE DEGREE

Developed for the student who wishes to acquire additional management skills and is planning a program in preparation for a business career of his/her choice. Flexibility in course selection enables the student to achieve his/her specific educational, career and personal goals. The Business Management program has been designed as a career program in preparing students for first line and/or mid-management positions.

Through the Weekend College, this program may be completed on weekends (see page 17).

The specific objectives of this program are that the graduate must be able to demonstrate:

- an understanding of current management theories and principles used in the successful management of organizations;
- knowledge of the fundamentals of planning, organizing, leading, and controlling and understanding the environment under which these management functions are practiced;
- problem solving skills and the ability to make decisions in the business environment using psychological and sociological insights;
- knowledge of psychological and sociological information in solving problems and in decision making;



- knowledge of the latest techniques of motivation, morale and team building to accomplish organizational objectives;
- an understanding of present national social issues and management's responsibility as well as the ramifications of issues in a global economy.

AFTER UCC

Graduates may work as managers, shift supervisors, management analysts and assistant managers of retail stores. While the career program is designed for students who expect to work in the profession immediately after graduation, many students elect to continue their studies at senior institutions.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
ACC 103	Accounting I	4		4
BUS 101	Intro to Contemporary Business	3		3
ECO 201	Principles of Economics I or			
ECO 202	Principles of Economics II	3		3
ENG 101	English Composition I	3	1	3
MAT 113	Business Mathematics	3		3

16

SECOND SEMESTER

ACC 104	Accounting II	4		4
BUS 105	Organization & Management	3		3
CIS 100	Intro to Computer Applications	2	2	3
ENG 122	Intro Technical & Business Writing or			
ENG 128	The Dynamics of Communication			3
PSY 101	General Psychology or			
SOC 101	Principles of Sociology	3		3

16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
BUS 201	Business Law I	3		3
BUS 208	Principles of Marketing	3		3
Elective	History, Modern Language	3		3
Electives	Business, Administration Support, or Computer (CIS, CSC) Courses*			7

16

SECOND SEMESTER

BUS 290	Co-op Ed. Experience or			3
ACC 290	Co-op Ed. Experience			
Elective	General Education			3
Electives	Business, Administrative Support, or Computer (CIS, CSC) Courses*			10

16

* A total of 17 credits in Business, Administrative Support, or Computer (CIS, CSC) courses must be taken.

BUSINESS MANAGEMENT

(WEEKEND OPTION)

ASSOCIATE IN APPLIED SCIENCE DEGREE

The purpose of the Weekend College is to enable persons with weekday and weeknight schedules that would prevent them from pursuing a college education, the chance to achieve their goal within a time frame suitable to their occupational and personal needs. It offers busy adults a wide variety of courses in a weekend format. The college schedules approximately 60 course sections from Friday evenings through Saturday afternoons utilizing the Cranford, Elizabeth, and Plainfield campuses. Subject areas offered include business, science, computers, English, math, fine arts, foreign languages, history, psychology, and developmental. Courses may be taken for college credit or just for achievement. Students in the Weekend College can also take classes on days other than Friday and Saturday. Classes are small enough so you can actively participate with others who share valuable life and professional experiences. Sufficient courses are scheduled on the Cranford Campus to permit the completion of an Associate in Applied Science Degree in Business Management in two and one half years if some summer courses are also taken or set your own pace. This degree allows the student the opportunity to do a concentration in either Accounting, Computers, Management, Marketing or Office Administration.

The specific objectives of this program are that the graduate must be able to demonstrate:

- an understanding of current management theories and principles used in the successful management of organizations;
- knowledge of the fundamentals of planning, organizing, leading, and controlling and understanding the environment under which these management functions are practiced;
- problem solving skills and the ability to make decisions in the business environment using psychological and sociological insights;
- knowledge of psychological and sociological information in solving problems and in decision making;
- knowledge of the latest techniques of motivation, morale and team building to accomplish organizational objectives;
- an understanding of present national social issues and management's responsibility as well as the ramifications of issues in a global economy.

AFTER UCC

Graduates will have received training in management theory, critical thinking and management functions and practices.

Graduates can work in management positions as assistant managers in retail stores, as shift supervisors, and various other business related positions.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
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FIRST SEMESTER

MAT 113	Business Mathematics	3		3
ACC 103	Accounting I	4		4
ADM 101	Keyboarding for the Computer	1	2	2
				9

SECOND SEMESTER

ENG 101	English Composition	3	1	3
ACC 104	Accounting II	4		4
PSY 101	General Psychology	3		3
SOC 101	Principles of Sociology	3		3
				13

SUMMER SESSION

BUS 101	Intro to Contemporary Business	3		3
BUS 105	Organization and Management	3		3
				6

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
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FIRST SEMESTER

CIS 100	Intro to Computer Applications	2	2	3
Elective	History or Modern Language	3		3
ENG 122	Intro Tech. & Bus. Writing or			
ENG 128	The Dynamics of Communication			3
				9

SECOND SEMESTER

BUS 107	Personnel Management	3		3
ADM 213	Word I	2	3	3
BUS 201	Business Law I	3		3
				9

SUMMER SESSION

BUS 208	Principles of Marketing	3		3
BUS 200	Small Business Management	3		3
				6

THIRD YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
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FIRST SEMESTER

ECO 201	Principles of Economics I or			
ECO 202	Principles of Economics II	3		3
Elective	General Education	3		3
BUS 202	Business Law II	3		3
BUS 290	Co-op Ed Experience or			
ACC 290	Co-op Ed Experience or			
ADM 290	Co-op Ed Experience			3
				12



BUSINESS MARKETING

ASSOCIATE IN APPLIED SCIENCE DEGREE

The Marketing Program prepares students with a fundamental knowledge of business procedures with an emphasis on a specialization in Marketing. Additionally, the program contains a substantial general education component to provide students with a more complete educational background. Although this program is not designed to be a transfer program, many of the courses would be acceptable for transfer. Upon completion of this program, students will be qualified to enter entry-level positions in advertising, marketing, public relations, and retailing and sales. Individuals currently employed in the Marketing area may wish to sharpen their skills by enrolling in certain courses or the entire program.

The specific objectives of this program are that the graduate must be able to demonstrate:

- an understanding of the marketing process;
- the ability to develop proficiencies in product planning, distribution, pricing, promotion, and other marketing activities;
- the ability to understand the role of advertising and sales promotion in a business organization;

- the ability to understand the place of marketing in the operations of a firm and in society;
- the ability to understand basic research concepts and practices applied to solving marketing problems;
- the ability to discuss the behavioral and social science concepts as they apply to understanding buying in retail organizations;
- the ability to describe the procedures and principles involved in buying in retail organizations;
- the ability to develop insights into successful retail store operation;
- the ability to discuss the role of the middleman in distributing goods;
- the ability to develop an understanding of the dynamics of the global economy, trade and development and its linkage with the U.S. economy.

AFTER UCC

Graduates are qualified to enter entry-level positions in Advertising, Marketing, Public Relations, and Retailing and Sales.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
BUS 101	Intro to Business	3		3
ACC 103	Accounting I	4		4
CIS 100	Intro to Computer Applications*	2	2	3
ENG 101	English Composition	3	1	3
MAT 119	Algebra or			
MAT 113	Business Mathematics	3		3
				16

SECOND SEMESTER				
ACC 104	Accounting II	4		4
BUS 105	Organization and Management	3		3
ENG 122	Introductory Technical & Business Writing	3	1	3
ECO 201	Principles of Economics I	3		3
BUS 136	Retailing Techniques	3		3
				16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
BUS 208	Principles of Marketing	3		3
BUS 137	Salesmanship	3		3
BUS 201	Business Law I	3		3
BUS 200	Small Business Management	3		3
Elective	Humanities	3		3
BUS 138	Retail Buying and Merchandising	3		3
				18

SECOND SEMESTER				
BUS 202	Business Law II	3		3
BUS 203	Principles of Advertising	3		3
BUS 210	Marketing and the Global Environment	3		3
BUS 290	Co-op Ed Experience or			
BUS 295	Special Projects	3		3
Free Elective		3		3
				15

*Required that students take ADM 101 prior to CIS 100.

CHEMISTRY

ASSOCIATE IN ARTS DEGREE[#]

This program is designed for students who wish to pursue a baccalaureate degree in chemistry or biochemistry. In addition to the major courses in chemistry, it includes core courses in physics and mathematics as well as liberal arts electives.



Candidates for the program should present two years of algebra, one year each of geometry, chemistry, and physics; and trigonometry, as high school entrance credits.

All students enrolled in the Chemistry Program must take a mathematics placement test. Test scores will determine the sequence of mathematics courses required.

Consultation with a Chemistry faculty member is advised.

The specific objectives of the program are that the student must be able to demonstrate:

- an understanding of how chemical theories explain the natural world;
- an ability to identify a problem and analyze it in terms of its significant parts and the information needed to solve it;
- an ability to differentiate between theory and practice in the chemical sciences;
- an ability to perform laboratory experiments and measurements, and to graph and analyze experimental data;
- an ability to comprehend and evaluate what they read and hear, and be able to communicate effectively.

AFTER UCC

Graduates can take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

[#] A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
ENG 101	English Composition I	3	1	3
CHE 111	General Chemistry I	3	3	4
PHY 111	Mechanics*	3	3	4
MAT 171	Unified Calculus I	4		4

15

SECOND SEMESTER

ENG 102	English Composition II	3	1	3
CHE 112	General Chemistry II	3	3	4
PHY 112	Mechanics, Heat and Sound*	3	3	4
MAT 172	Unified Calculus II	4		4

15

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
CHE 211	Organic Chemistry I**	5		5
Elective	Mathematics or Science***	3-4		3-4
Elective	General****	3		3
Elective	Humanities*****	3		3
Elective	Social Science*****	3		3

17-18

SECOND SEMESTER

CHE 212	Organic Chemistry II**	5		5
Elective	Mathematics or Science***	4		4
Elective	General	3		3
Elective	Humanities*****	3		3
Elective	Social Science*****	3		3

18

* PHY 101-102 may be substituted. Please consult with a Chemistry Department faculty member and/or advisor from your potential transfer institution.

** When offered, CHE 201-202 may be substituted.

*** Please choose from one of the following sequences:

CHE 201-202 or BIO 111-112 or
PHY 201-202 or MAT 271-272

**** CIS 100 is required for students who lack computer literacy.

***** Please choose electives from the following:

Humanities:

German (2 semester sequence recommended)
French (2 semester sequence recommended)
Fine Arts
English (200-Level literature course)
History

Social Sciences

Economics
Government
Psychology
Sociology

When choosing electives, the student should consult the catalogs of potential transfer institutions and/or consult with a faculty member of the Chemistry Department.

CIVIL/CONSTRUCTION ENGINEERING TECHNOLOGY

ASSOCIATE IN APPLIED SCIENCE DEGREE

This is a two-year program that prepares students for technical employment in field or office positions related to the design, layout, and construction of land subdivisions, buildings, streets and highways, bridges, storm drainage projects, water supply facilities, pollution control systems, and other public works infrastructures. Graduates receive the Associate in Applied Science degree and have the option of working with engineering or architectural firms, surveyors, building contractors, municipal engineering departments, public utility companies or construction inspection and material testing companies. They also are able to continue their education on a part-time or full-time basis at other colleges that offer a four-year Bachelor of Science Degree in Engineering Technology. Those colleges normally accept two full years of credit from graduates who have good academic standing.

See paragraph on "Qualifications for Admission to Degree Programs" for desired high school background (see page 214).

The specific objectives of this program are that the graduate shall be able to demonstrate:

- knowledge of basic construction methods and building material properties including structural steel, concrete and wood;
- the ability to apply computer-aided drafting skills on survey plats, topographic maps, profiles, sections, and engineering shop drawings;
- knowledge of standard laboratory and field soil tests, such as sieve analysis, moisture content, and liquid and plastic limits;

- the ability to perform as a knowledgeable, skillful, and productive member of a surveying crew, using standard electronic surveying instruments;
- knowledge of basic principles of statics and strength of materials to computer forces, stresses and strains in simple structural members;
- knowledge of the basic principles of fluid mechanics to calculate hydrostatic pressure, forces on submerged surfaces, flow rates and pressure gradients in pipe lines and open channels;
- the ability to perform material quantity takeoffs and cost estimating calculations for excavation, site work, concrete, masonry, steel and wood construction;
- knowledge of the contractual arrangements and roles of the owner engineer or architect and builder in the process by which public and private infrastructure is designed and constructed in the USA;
- the ability to utilize computer software applications such as word-processing, spreadsheets, basic programming, and mathematical computing.

AFTER UCC

Graduates have the option of working with engineering or architectural firms, surveyors, building contractors, municipal engineering departments, public utility companies or construction inspection and material testing companies. They also are able to continue their education on a part-time or full-time basis at other colleges that offer a four-year Bachelor of Science degree in Engineering Technology

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
ENG 101	English Composition I	3	1	3
MAT 143	Elementary Mathematical Analysis I	4		4
CSC 115	Intro to Computer Programming	2	2	3
CIT 104	Construction Management	3		3
MET 109	Computer-Aided Drafting	2	3	3

16

SECOND SEMESTER

ENG 122	Introductory Technical and Business Writing (or ENG 102)	3	1	3
MAT 144	Elementary Mathematical Analysis II	4		4
PHY 101	General Physics I	3		3
PHYL101	General Physics I Laboratory		3	1
CIT 108	Soil Mechanics	2	2	3
MET 112	Mechanics-Statics	3		3

17

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
PHY 102	General Physics II	3		3
PHYL102	General Physics II Laboratory		3	1
CIT 205	Surveying I	3	3	4
CIT 210	Strength of Materials	3	1	3
CIT 215	Fluid Mechanics	3	1	3
Elective	Social Science			3

17

SECOND SEMESTER

CIT 201	Structural Design	3	3	4
CIT 206	Surveying II	3	3	4
CIT 203	Estimating	2		2
Elective	Humanities			3
Elective	Technical*			3

16

*MAT 171 recommended for students transferring

COMMUNICATIONS

ASSOCIATE IN ARTS DEGREE[‡]

The Communications curriculum is designed for transfer to a bachelor's program in communications or related discipline. Options are available for students who have decided that they are particularly interested in a certain field. Faculty advisors are available in the Communications program and students are encouraged to consult with a faculty advisor regarding appropriate option and course selection for their needs and interests.



The specific objectives of this program are that the graduate must be able to demonstrate:

- the ability to communicate verbally and in writing with a level of sophistication and fluency appropriate to college-level discourse;
- a recognition of the necessity of keeping abreast of current cultural, social and political issues and events as a cornerstone of citizenship in a democratic society;
- a level of comfort and proficiency with standard productivity software such as word processors, presentation managers and web browsers, as well as an understanding of the ways in which these tools are applied in the communications field;

- an awareness that learning is a complex, life-long process and not an event, a phenomenon, not an outcome;
- a critical and active relationship with their culture's narratives and texts as well as a functional understanding of the various media used to convey them.

AFTER UCC

Graduates can prepare to transfer into a four-year college or university Communication program and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

[‡] A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
COM100	Communications Technologies	3		3
COM101	Mass Communications	3		3
ENG 101	English Composition I	3	1	3
	Laboratory Science or			
MAT	Mathematics*			3-4
HIS 101	Intro to Western Civilization I	3		3

15-16

SECOND SEMESTER

COM201	Issues in Mass Media	3		3
ENG 102	English Composition II	3	1	3
	Laboratory Science or			
MAT	Mathematics*			3-4
ENG 128	The Dynamics of Communication or			
ENG 129	Public Speaking	3		3
HIS 102	Intro to Western Civilization II	3		3

15-16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
COM	Elective	3		3
ENG	200-Level	3		3
	Modern Language	3		3
GOV 201	American Govt and Politics	3		3
PSY 101	General Psychology	3		3
Elective	Social Science	3		3

18

SECOND SEMESTER

COM	Elective	3		3
ENG	200-Level	3		3
	Modern Language	3		3
GOV 202	American National Govt	3		3
Elective	Social Science	3		3

15

*Mathematics requirement must be MAT 117 or higher

COMPUTER INFORMATION SYSTEMS

(OPTION OFFERED THROUGH BUSINESS)
ASSOCIATE IN ARTS DEGREE[‡]

The Computer Information Systems (CIS) curriculum is an option in the Business program. It is a two-year course of study leading to the Associate in Arts degree. It is designed as a transfer program through which students may enter four-year colleges and universities with junior-year standing. Unlike programs in Computer Science, the CIS program does not place a heavy emphasis on mathematics. It is, instead, heavily oriented toward application, less toward mathematical theory.

The CIS program is based on a model developed nationally by the Association of Information Technology Professionals. The Associate degree program parallels the first two years of study at a four-year institution and leads to the Bachelor of Science degree in Computer Information Systems.

See paragraph "Qualifications for Admission to Degree Program" for desired high school background (see page 214).

The specific objectives of this program are that the graduate must be able to demonstrate:

- an understanding of the system development life cycle and knowledge of its application to development projects;
- an ability to apply the principles of information systems to systems project development within an organization;
- a capability to understand accounting systems;
- competency to create, interpret, and use program specifications and documentation;
- an ability to communicate using the Internet and E-mail;
- an awareness of the social, ethical, and economic implications of the computer and computer systems;
- an ability to produce detailed program logic plans.

AFTER UCC

Graduates complete the first two years of a Bachelor's degree in Computer Information Systems to transfer to a senior institution with a solid background in programming and accounting.

[‡] A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
ACC 103	Accounting I	4		4
BUS 101	Intro to Contemporary Business	3		3
CIS 101	Intro to Information Systems	2	2	3
ENG 101	English Composition I	3	1	3
HIS 101	Intro to Western Civilization I* or Modern Language*	3		3

16

SECOND SEMESTER				
ACC 104	Accounting II	4		4
CIS 102	Applications Program Development I	3	1	3
ENG 102	English Composition II	3	1	3
HIS 102	Intro to Western Civilization II* or Modern Language*	3		3
MAT	Mathematics***	3		3-4
PSY 101	General Psychology	3		3

19-20

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
BUS 201	Business Law I or			
BUS 212	Quantitative Methods in Business	3		3
CIS 201	Applications Program Development II	3	1	3
ECO 201	Principles of Economics I	3		3
	Laboratory Science	3	3	4
MAT	Mathematics***	3		3-4

16-17

SECOND SEMESTER				
CIS 202	Structured Systems Analysis	3		3
ECO 202	Principles of Economics II	3		3
PSY 102	Psychology of Personality or			
SOC 101	Principles of Sociology	3		3
	Electives**			6

15

* A one-year sequence in either.

**Electives recommended:

ENG 128, Fine Arts

***See advisor to choose an appropriate mathematics course.



COMPUTER SCIENCE

ASSOCIATE IN APPLIED SCIENCE DEGREE

Computer Science is a two-year Associate in Applied Science degree program. A graduate of the program can be employed as an entry-level computer programmer, engineering assistant, computer operator, or may be able to continue his/her education in the computer field at a four-year degree-granting institution. The objective of the program is to develop logical thinking and problem solving skills using current programming languages with modern computer systems. hands on software programming occupies a significant amount of the student's time. Computers for student use are available on each campus.

See paragraph "Qualifications for Admission to Degree Programs" for desired high school background (see page 214).

The specific objectives of this program are that the graduate must be able to demonstrate:

- the ability to communicate effectively with associates;
- a command of problem solving techniques and an aptitude for critical thinking;
- a competency to prepare program documentation;
- the capability to design well-defined, logical programs;
- the capability to test and verify the accuracy and completeness of programs;
- an understanding of the ethical ramifications of the uses of the computer;
- a readiness to work effectively in a group situation;
- a familiarity with state-of-the-art concepts in computer science.

AFTER UCC

Graduates of this program can be employed as entry-level computer programmers, engineering assistants, computer operators, or may continue their education in the computer field at a four-year degree granting institution.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
ACC 103	Accounting I	4		4
CSC 101	Computer Algorithms	2	3	3
ENG 101	English Composition I	3	1	3
MAT 119	Algebra	3		3
Elective	Humanities			3
				16

SECOND SEMESTER

ACC 104	Accounting II	4		4
CSC 102	Data Structures	2	2	3
Elective	Technical **	3		3
ENG 122	Introductory Technical and Business Writing	3	1	3
MAT 127	Elementary Statistics	4		4
				17

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
BUS 105	Organization and Management	3		3
CIS 202	Structured Systems Analysis & Design	3	1	3
CSC 121	Assembly Language I	3	1	3
CSC 126	Intro to Operating Systems	3		3
ECO 201	Principles of Economics I	3		3
				15

SECOND SEMESTER

CSC 290	Co-op Ed. Experience*			3
Electives	Technical **			12
Elective				3
				18

*An elective approved by the Coordinator may be substituted.

**TECHNICAL ELECTIVES:

CIS 102	Applications Program Development I	3
CIS 106	Visual J++	3
CIS 120	The Internet	3
CIS 130	Intro to Visual Basic	3
CIS 132	Intermediate Visual Basic	3
CIS 201	Applications Program Development II	3
CIS 204	Data Base Management	3
CIS 205	Data Communications and Networks	3
CSC 217	Advanced C++ Programming	3
CSC 218	Visual C++	3
CSC 231	Organization & Architecture	3
CSC 285	Special Topics	1-3

Prerequisites for courses must be successfully completed prior to taking courses.

COMPUTER SCIENCE/ENGINEERING

(OPTION OFFERED THROUGH ENGINEERING PROGRAM)
ASSOCIATE IN SCIENCE DEGREE[‡]

The Computer Science Option offers the first two years of a computer science curriculum and prepares graduates for successful transfer to bachelor's degree programs at leading engineering colleges throughout the country. Computer science, as an option in the Engineering program, studies theoretical and practical problems of system implementation involving both software and hardware. The program prepares the student for a career in the design and development of computer systems. Baccalaureate degree graduates understand hardware and software and can engineer computer systems for a variety of customer applications.

Union County College has dual admission agreements with New Jersey Institute of Technology and Rutgers University. These allow Union County College graduates to transfer with junior status without going through a second admission process. Union County College also has formal transfer agreements with many other colleges.

Applicants for the Computer Science Option must present two years of algebra and one year of geometry, trigonometry, chemistry, and physics, as high school entrance credits. Students deficient in any of these subjects must take the appropriate preparatory courses. All candidates are required to take a mathematics and a physics placement test.

The specific objectives of this program are that the graduate must be able to demonstrate:

- the ability to apply knowledge of computer system components, organization, and software operating systems;
- the ability to apply knowledge of computer algorithms, data structures, assembly language, and programming and data processing skills;
- critical thinking and mathematical problem solving skills in calculus;
- an understanding of fundamental principles and problem solving skills in chemistry and physics;
- the ability to write and communicate effectively; and
- the ability to work as a team member.



AFTER UCC

Graduates will be prepared for careers in the design and development of computer systems. Graduates may also transfer to a 4-year institution.

[‡] A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
CHE 111	General Chemistry I	3	3	4
CSC 101	Computer Algorithms	2	3	3
ENG 101	English Composition I	3	1	3
MAT 171	Unified Calculus I	4		4
EKG 105	Intro to Fundamentals of Engineering	3		3
				17

SECOND SEMESTER

ENG 102	English Composition II	3	1	3
CSC 102	Data Structures	2	2	3
MAT 172	Unified Calculus II	4		4
PHY 111	Mechanics	3		3
PHYL 111	Mechanics Laboratory	3	1	
HIS	Elective	3		3
				17

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
CSC 121	Assembly Language I	3	1	3
MAT 271	Unified Calculus III	4		4
PHY 201	Electricity & Magnetism	3		3
PHYL 201	Electricity & Magnetism Laboratory	3	1	
ECO 201	Principles of Economics I or			
ECO 202	Principles of Economics II	3		3
Elective	Psychology or Sociology	3		3
				17

SECOND SEMESTER

CSC 126	Intro to Operating Systems	3		3
CSC 231	Computer Organization & Architecture	3		3
MAT 267	Discrete Mathematics*	3		3
HIS	Elective	3		3
PED 101	Concepts of Adult Fitness	2		2
				14

*MAT 265 or MAT 272 may be substituted. Consult with the four-year transfer institution.



COMPUTER SCIENCE/MATHEMATICS

(OPTION OFFERED THROUGH LIBERAL ARTS)
ASSOCIATE IN ARTS DEGREE[‡]

The Liberal Arts (Computer Science/Math Option) is designed to follow the recommendations of the Association for Computing Machinery's (ACM) Curriculum Committee on Computer Science. The program provides students with a strong mathematics background, enabling them to design computer algorithms and use data structures in the solution of scientific programming problems.

Graduates will have completed a program parallel to the first two years of study at a four-year institution, and will be well prepared to transfer into a bachelor's degree program in Computer Science.



The specific objectives of this program are that the graduate must be able to demonstrate:

- critical thinking, effective communication skills, and problem solving skills in the construction of computer algorithms;
- the ability to use data structures in the solution of scientific programming problems;
- an awareness of and concern for the ethical implications of institutional policies and individual practices;
- an awareness of his/her rights and responsibilities as a citizen of a world community;
- the ability to communicate with others in a diverse society;
- an awareness of the diverse technical and non-technical factors that shape the world in order to keep pace with the changing society;
- the ability to use computer and other technology for learning and research;
- the ability to learn independently and to direct his/her own learning.

AFTER UCC

Graduates will have completed a program parallel to the first two years of study at a four-year institution, and will be well prepared to transfer into a bachelor's degree program in Computer Science.

[‡] A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
CSC 101	Computer Algorithms	2	2	3
ENG 101	English Composition I	3	1	3
HIS 101	Intro to Western Civilization I*** or Modern Language***	3		3
MAT 171	Unified Calculus I	4		4
PSY 101	General Psychology	3		3
				16

SECOND SEMESTER

CSC 102	Data Structures	2	2	3
ENG 102	English Composition II	3	1	3
HIS 102	Intro to Western Civilization II *** or Modern Language***	3		3
MAT 172	Unified Calculus II	4		4
PSY 102	Psychology of Personality	3		3
				16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
ECO 201	Principles of Economics I	3		3
ENG	200-Level Literature course or Modern Language	3		3
CSC 121	Assembly Language I	3	1	3
MAT 265	Linear Algebra*	3		3
GOV 201	American Government & Politics	3		3
Elective	General			3-4
				18-19

SECOND SEMESTER

ECO 202	Principles of Economics II	3		3
ENG	200-Level Literature or Modern Language	3		3
MAT 267	Discrete Mathematics*	3		3
GOV 202	American National Government	3		3
Elective	General	3		3
Elective				3-4
				18-19

*MAT selection should be made in consultation with transfer advisor.

** Recommended electives are: MAT 246, MAT 271.

*** A one-year sequence in either history or one language.

It is suggested that the student choose electives from the following list.

AST 101-102	CSC 213
BIO 101	ENG 215
BIO 102, 103	GOV 205
BIO 104, 113, 109	HRS 101, 102, 201
BIO 114, 115, 116	PHI 205, 209
CHE 101, 102, 106	PHY 101, 102, 111, 112
COM 106	PSY 213

CRIMINAL JUSTICE

ASSOCIATE IN ARTS DEGREE[‡]

The Criminal Justice Program is designed to develop law enforcement professionals, other criminal justice personnel and others who, after completion of the two-year program, will be prepared to continue their studies in fields such as police administration, public administration, legal studies, and management. See paragraph "Qualifications for Admission to Degree Program" for desired high school background (see page 214).

The specific objectives of this program are that the graduate must be able to demonstrate:

- knowledge of the field of criminal justice including police organization and administration and police management systems;
- awareness and concern about the ethical implications of criminal justice;
- awareness of his/her rights and responsibilities as an officer of the law and as a citizen of a world community;
- the ability to communicate effectively, both in writing and orally, with particular emphasis on police reports and interpersonal communication;



- awareness of the factors that shape the world in order to function effectively as a police officer in a multicultural society;

- an understanding of the characteristics of the social and psychological characteristics of offenders;
- an understanding of the dynamics of relationships between the diverse cultural and racial groups;
- the ability to apply critical thinking and problem solving skills to specific criminal justice situations.

AFTER UCC

Graduates can continue their studies in fields such as police administration, public administration, legal studies, and management at a four-year college or university and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

[‡] A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
CRJ 101	Intro to Criminal Justice	3		3
ENG 101	English Composition I	3	1	3
HIS 201	United States History to 1865	3		3
	Laboratory Science or MAT Mathematics*			3-4
PSY 101	General Psychology	3		3
15-16				

SECOND SEMESTER

CRJ 102	Police Organization and Administration	3		3
ENG 102	English Composition II	3	1	3
HIS 202	United States History since 1865	3		3
	Laboratory Science or CRJ 103 Intro to Forensic Procedure or MAT Mathematics*			3-4
PSY 207	Social Psychology	3		3
15-16				

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
CRJ 201	Police Management Systems	3		3
CRJ 203	Criminal Investigation	3		3
ENG 128	The Dynamics of Communication or			
ENG 129	Public Speaking	3		3
GOV 201	American Government and Politics	3		3
SOC 101	Principles of Sociology	3		3
Elective	Humanities			3
18				

SECOND SEMESTER

CRJ 205	Police Role in the Community	3		3
CRJ 206	Criminal Law or			
CRJ 207	Special Police Operations or			
GOV 204	Public Administration	3		3
GOV 202	American National Government	3		3
SOC 206	Minorities in American Life	3		3
Electives	General			3-6
15-18				

Electives may be chosen from any field. See program coordinator for specific recommendations.

*MAT 117 or higher.

DENTAL HYGIENE

ASSOCIATE IN APPLIED SCIENCE DEGREE

By virtue of an agreement between Union County College and the School of Health-Related Professions (SHRP) of the University of Medicine and Dentistry of New Jersey (UMDNJ), an A.A.S. degree in Dental Hygiene is conferred jointly by these two institutions. The general education courses are taught by Union County College and the professional courses are taught by the Department of Allied Dental Education, SHRP-UMDNJ at the Scotch Plains and Newark campuses. All students will be attending both Scotch Plains and Newark campuses. Enrollment is limited and admission to this program is competitive. Completion of this program entitles the student to sit for the National and Northeast Regional Board Examination for Dental Hygiene.

The program is accredited by the American Dental Association's Commission on Dental Accreditation.

A dental hygienist, under the supervision of a dentist, removes deposits from the teeth, applies agents which make teeth more resistant to decay, instructs groups and individuals in the proper care of teeth and surrounding tissues, charts disease and decay conditions for diagnosis and treatment by the dentist, and performs patient services delegated by the dentist.

The dental hygienist must possess manual dexterity, and good vision, health and oral hygiene habits.

Admission is limited. For admission information, contact the Union County College admissions representative at the Scotch Plains Campus. Application deadline – April 1 dental classes begin January of each year.

Inextricably related to SHRP's overall mission, the mission of the SHRP-UMDNJ's Department of Allied Dental Education is to promote professional standards of excellence and leadership among its students and health professionals while meeting the health care needs of New Jersey residents through patient care, education, research, and service.

The Department's unique and innovative curriculum reflects the direction of allied dental practice and often presages the evolution of the profession. The Department seeks to develop new and innovative approaches to education while keeping pace with current treatment modalities and research strategies. The students develop a humanistic approach to health care delivery as well as critical thinking, problem solving, independent decision making, and research skills which characterize the professional.

The Department strives to instill in its students and its members of the allied dental professions, a dedication to life-long learning, and provides opportunities for continued growth within the health professions.

The specific objectives of this program are that the graduate must be able to:

- exhibit competency as clinicians through demonstrated performance on the Northeast Regional Board Dental Hygiene Examination and the National Board Examination and feedback from Employer Surveys;
- assume responsibility for health promotion and disease prevention for individuals and communities through participation in multiple dental health education projects;
- perform multiple, advanced level dental auxiliary functions as defined in the New Jersey State Dental Practice Act under the auspices of Dental Specialties II;

Effective September 2004 all professional courses will be offered through UMDNJ at the University tuition rate.

For further information contact the Scotch Plains campus at 908-889-2483.



- obtain the RDH license;
- demonstrate professional development through membership in the Student American Dental Hygienists' Association and participation in related activities;
- display professionalism in the delivery of comprehensive dental health care through achievement of satisfactory grades in this section of the evaluation form for Clinical Services I, II, and III;
- prepare individuals for employment as dental hygienists;
- determine student satisfaction with educational programming;
- assess patient satisfaction with treatment service provided by students through data collection from the patient satisfaction survey.

AFTER UCC

Graduates will sit for the National and Northeast Regional Examination for Dental Hygiene.



DENTAL HYGIENE

ASSOCIATE IN APPLIED SCIENCE DEGREE cont'd

Effective Fall 2004, students register for the professional phase courses at the UMDNJ Scotch Plains campus and pay the UMDNJ undergraduate tuition rate and fees.

The nature of the courses may require students to act as dental service providers and patients with fellow students.

Please note that the State Board of Dentistry of New Jersey conducts criminal background checks on all applicants.

RECOMMENDED SEQUENCE

PRE-ADMISSION REQUIREMENTS

COURSE#	COURSE	LEC.	LAB	CR.
**PRE-ADMISSION REQUIREMENTS				
BIO 105	Anatomy & Physiology I	3	3	4
BIO 106	Anatomy & Physiology II	3	3	4
BIO 108	Microbiology	3	3	4
CHE 105	Chemistry-Health Sciences	3	3	4
ENG 101	English Composition I	3	1	3
PSY 101	General Psychology I	3		3

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**** MUST BE COMPLETED PRIOR TO APPLICATION TO THE PROGRAM**

MINIMUM 2.5 GPA – Rank Ordered

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
UDC 111	Dental Head & Neck Anatomy (Core Course)	3		3
UDC 123	Intro to Dental Professions (Core Course)	3	3	4
UDH 100	Intro to Clinical Dental Hygiene	3	8	4
UDC 125	Dental Materials (Core Course)	2	3	3
UDC 124	Medical Emergencies in the Dental Office (Core Course)	1	1	1

15

SECOND SEMESTER

UDC 119	Dental Health Education (Core Course)	1		1
UDC 121	Dental Radiology (Core Course)	2	3	3
UDH 231	Clinical Dental Hygiene I	3		3
UDH 241	Clinical Services I	1	12	3
UDH 280	Oral Embryology and Histology	2		2

12

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
UDH 240	Nutrition	2		2
UDH 300	Oral Pathology	2		2
UDH 310	Dental Health Education/Community Dental Health	2		2
UDH 320	Pharmacology and Oral Medicine	1		1
UDH 321	Periodontology I	2		2
UDH 332	Clinical Dental Hygiene II	2		2
UDH 342	Clinical Services II	1	12	3
UDC 126	Dental Specialties (Core Course)	1		1

15

SECOND SEMESTER

UDC 246	Practice Management (Core Course)	1		1
UDH 352	Dental Specialties II		3	1
UDH 411	Capstone Seminar	2		2
UDH 422	Periodontology II	2		2
UDH 443	Clinical Services III	1	12	3
UDH 453	Pain Control	1	1	1

10

General education requirements - These courses must be completed before entering the professional phase of the program in January

SOC 101	Principles of Sociology			3
ENG 102	English Composition II			3
ENG 129	Public Speaking			3
Elective	History			3

12

DESKTOP PUBLISHING

(OPTION OFFERED THROUGH COMMUNICATIONS)
ASSOCIATE IN ARTS DEGREE*

This program is designed for transfer to a bachelor's degree-granting institution. Course work includes the theory and practice of using computers for combining word processing with graphic design to produce a variety of print material. Students are required to consult with an advisor regarding appropriate option and course selection for their needs and interests.



The specific objectives of this program are that the graduate must be able to demonstrate:

- the ability to communicate their ideas verbally and in writing with a level of sophistication and fluency appropriate to college-level discourse;
- a recognition of the necessity of keeping abreast of current cultural, social and political issues and events as a cornerstone of citizenship in a democratic society;
- a level of comfort and proficiency with standard productivity software such as word processors, presentation managers and web browsers, as well as an understanding of the ways in which these tools are applied in the communications field;
- an awareness that learning is a complex, life-long process and not an event, a phenomenon, not an outcome;

- facility with the cutting-edge tools necessary to be competitive in the high-technology arena of desktop publishing and design;
- professional competence in the technical and theoretical skill-set that constitutes the working toolbox of today's desktop publishing and design specialists.

AFTER UCC

Graduates can prepare for a future career in the rapidly growing electronic publishing field, and transfer to a four-year college or university.

* A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
COM 100	Communications Technologies	3		3
COM 101	Mass Communications	3		3
ENG 101	English Composition I	3	1	3
PSY 101	General Psychology	3		3
Laboratory Science or MAT	Mathematics*			3-4
15-16				

SECOND SEMESTER

COM 107	Publication Editing and Design	3		3
ENG 102	English Composition II	3	1	3
Laboratory Science or MAT	Mathematics*			3-4
ENG 128	The Dynamics of Communication or			
ENG 129	Public Speaking	3		3
FIA 108	Appreciation of Art	3		3
15-16				

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
COM 207	Advanced Publication Editing & Design	3		3
ENG	200-Level Modern Language or	3		3
HIS 101	Intro to Western Civilization I	3		3
GOV 201	American Govt and Politics	3		3
Elective	Humanities	3		3
Elective	Social Science	3		3
18				

SECOND SEMESTER

COM 102	Reporting and News Writing or			
COM 111	Mass Communication Ethics or			
COM 108	Principles and Practices of Public Relations	3		3
ENG	200-Level Modern Language or	3		3
HIS 102	Intro to Western Civilization II	3		3
GOV 202	American National Govt	3		3
Elective	Social Science	3		3
15				

*Mathematics requirement must be MAT 117 or higher



EARLY CHILDHOOD ELEMENTARY EDUCATION

SUGGESTED GRADES PRE-K-3 (OPTION OFFERED THROUGH LIBERAL ARTS) ASSOCIATE IN ARTS DEGREE*

For students who wish to prepare themselves for an Associate Degree or wish to transfer and earn a baccalaureate degree in Early Childhood Education or Elementary Education.

See paragraph "Qualifications for Admission to Degree Programs" for desired high school background (see page 214).

The specific objectives of this program are that the graduate must be able to demonstrate:

- the ability to apply understanding of psychological concepts to the learning behavior of the young child in order to address specified problems;
- an understanding of societal influences on the learning of the young child;
- an ability to apply understanding of group dynamics to the management of a group of young children;
- an ability to use visual art projects to further the growth and development of the young child;
- an understanding of the characteristics of effective teaching behaviors;
- an understanding of the organization and funding of school systems;
- the knowledge of the history of American education;
- an understanding of the implications for teaching of multiculturalism and pluralism;
- an understanding of procedures for integrating students with special needs into the classroom;
- an understanding of the roles of teachers, students, parents, administrators, and teacher associations in American education;
- effective written and spoken communication skills;
- an awareness of and concern for the ethical implications of institutional policies and individual practices;
- an awareness of his/her rights and responsibilities as a citizen of a world community;
- an awareness of the diverse factors that shape the world in order to keep pace with the changing society;
- the ability to learn independently and to direct his/her own learning.

* A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
ENG 101	English Composition I	3	1	3
Elective	Laboratory Science	3	1	4
MAT 119	Algebra**	3		3
PSY 101	General Psychology	3		3
SOC 101	Principles of Sociology	3		3
				16

SECOND SEMESTER

ENG 102	English Composition II	3	1	3
Elective	Laboratory Science	3	1	4
PSY 205	Child Psychology	3		3
SOC 102	Social Problems	3		3
FIA	Elective*	3		3
				16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
PSY 211	Current Issues in Psychology	3		3
ENG 128	Dynamics of Communication	3		3
Elective	PSY, SOC, or EDU+	3		3
EDU 205	Educational Psychology	3		3
EDU215	Field Work in Education***	3		3
HIS	2-semester sequence++	3		3
				18

SECOND SEMESTER

PED 107	Decisions for Wellness	3	3	4
CIS 111	Integrating Technology in the Curriculum	2	2	3
GEO 201	World Geography			3
HIS	2-semester sequence++			3
Electives	HIS 105, 106, SOC 206 or SPA (choose one)			3
				16

*CHOOSE ONE FROM:

FIA 104 Basic Design
FIA 107 Intro to Dance
FIA 109 Drawing I
FIA 110 Painting I
FIA 205 Intro to Drama
ENG 200-Level Literature

+CHOOSE ONE FROM:

PSY 102 Psychology of Personality
PSY 206 Adolescent Psychology
PSY 210 Human Sexuality
SOC 273 Marriage and Family
EDU 270 Topics in Education

**Student must have a total of 6 credits at a level of 119 or higher in MAT

***EDU 215 must be taken after EDU 205 or concurrently with EDU 205. Usually for UCC matriculated students in LAED or LAEC.

++Student must take either HIS 101 and 102 Intro to Western Civilization or HIS 201 and 202 U.S. History in sequence.

Teacher Education majors must periodically consult with the Coordinator of Teacher Education to review the latest federal and state requirements for Teacher Certification (Teacher License).

AFTER UCC

Graduates of this program will transfer to a four-year college or university for a baccalaureate degree to work with students in early childhood education.



EDUCATION

SUGGESTED GRADES 4-12 (OPTION OFFERED THROUGH LIBERAL ARTS) ASSOCIATE IN ARTS DEGREE*

Students who wish to prepare themselves for an Associate Degree or wish to transfer and earn a baccalaureate degree in Education.

See paragraph "Qualifications for Admission to Degree Programs" for desired high school background (see page 214).

The specific objectives of this program are that the graduate must be able to demonstrate:

- the ability to apply understanding of group dynamics to the management of a given group of children aged nine to eighteen years;
- the ability to use visual art projects to further the growth and development of children aged nine to eighteen years;
- the ability to apply understanding of psychological concepts to the learning behavior of children aged nine to eighteen years;
- an understanding of the characteristics of effective teaching behaviors;
- an understanding of the organization and funding of school systems;
- knowledge of the history of American education;
- an understanding of the implications for teaching of multiculturalism and pluralism;
- an understanding of procedures for integrating students with special needs into the classroom;
- an understanding of the roles of teachers, students, parents, administrators, and teacher associations in American education;
- effective written and spoken communication skills;
- an awareness of and concern for the ethical implications of institutional policies and individual practices;
- an awareness of his/her rights and responsibilities as a citizen of a world community;
- an awareness of the diverse factors that shape the world in order to keep pace with the changing society;
- the ability to learn independently and to direct his/her own learning.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
ENG 101	English Composition I	3	1	3
Elective	Laboratory Science	3	1	4
MAT 119	Algebra**	3		3
SOC 101	Principles of Sociology	3		3
PSY 101	General Psychology	3		3

16

SECOND SEMESTER

ENG 102	English Composition II	3	1	3
HIS 202	U.S. History Since 1865	3		3
Elective	Laboratory Science	3	1	4
PSY 205	Child Psychology	3		3
SOC 102	Social Problems	3		3

16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
EDU 215	Field Work in Education***	3		3
EDU 205	Educational Psychology	3		3
Elective	PSY, SOC, or EDU+	3		3
ENG 128	Dynamics of Communication	3		3
HIS	2-semester sequence++	3		3
PSY 211	Current Issues in Psychology	3		3

*

18

SECOND SEMESTER

BIO 107	Decisions for Wellness	3	3	4
CIS 111	Integrating Technology in the Curriculum	2	2	3
GEO 201	World Geography	3		3
HIS	2-semester sequence++	3		3
Elective	HIS 105 or 106 or SOC 206 or SPANISH (choose one)	3		3

16

*CHOOSE ONE FROM:

FIA 104	Basic Design
FIA 107	Intro to Dance
FIA 109	Drawing I
FIA 110	Painting I
FIA 205	Intro to Drama
ENG 200	Level Literature

+CHOOSE ONE FROM:

PSY 102	Psychology of Personality
PSY 206	Adolescent Psychology
PSY 210	Human Sexuality
SOC 273	Marriage and Family
EDU 270	Topics in Education

**Student must have a total of 6 credits at a level of 119 or higher in Mathematics

***EDU 205 must be taken before or concurrently with EDU 215. Usually, EDU 215 is given for UCC matriculated students in LAED or LAEC.

++Student must take either HIS 101 and 102 Intro to Western Civilization or HIS 201 and 202 U.S. History in sequence.

Teacher Education majors must periodically consult with the Coordinator of Teacher Education to review the latest federal and state requirements for Teacher Certification (Teacher License).

AFTER UCC

Graduates of this program will transfer to a four-year college or university for a baccalaureate degree to work with students in grades 4-12.

* A diversity course (see page 110) is required for transfer to a 4-year institution

ELECTRONICS/ELECTROMECHANICAL/ENGINEERING TECHNOLOGY

ASSOCIATE IN APPLIED SCIENCE DEGREE

Electronics/Electromechanical/Engineering Technology students are prepared in the skills and understanding necessary to install and service equipment which combines electronic, electrical and mechanical components. Special emphasis is placed on computers, computer peripherals, robotics, automated manufacturing systems, fiber optic systems, and the operation of digital computers in automatic control systems. Considerable portions of the allotted laboratory hours are devoted to learning and practicing troubleshooting, repair, and maintenance procedures of electromechanical and electronic equipment.

Graduates may have the option of entering a Bachelor of Science in Technology program or accepting positions as field service representatives or laboratory technicians with firms in the computer and electronics fields.

See paragraph on "Qualifications for Admission to Degree Programs" for desired high school background (see page 214).

The specific objectives of this program are that the graduate must be able to demonstrate:

- the ability to effectively analyze and synthesize electromechanical, electrical and electronic systems and subsystems with minimal supervision;
- the ability to confidently and competently enter the job market on a semiprofessional level as a service technician in any situation requiring the installation, maintenance, repair, and operation of:
 - computers and computer peripherals;
 - control systems;
 - test, measurement, and instrumentation equipment;
 - electromechanical assemblies and sub-assemblies;
- the ability to effectively communicate and present information in a logical and systematic manner;

- positive interaction interpersonally as a member of a technological team and/or employer representative;



- the initiative and skills to continue to educate oneself and remain abreast of the state-of-the-art through the review and interpretation of technical literature;
- an awareness of community, societal, and ethical responsibilities and obligations associated with being awarded a college degree.

AFTER UCC

Graduates have the option of entering a Bachelor of Science in Technology program or accepting positions as field service representatives or laboratory technicians with firms in the computer and electronic fields.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
CSC 115	Intro to Computer Programming	2	2	3
EET 101	Principles of DC Circuits	3	3	4
MET 109	Computer-Aided Drafting	2	3	3
ENG 101	English Composition I	3	1	3
MAT 143	Elementary Mathematical Analysis I	4		4

17

SECOND SEMESTER

EET 102	Principles of AC Circuits	2	3	3
EET 111	Digital Computer Fundamentals	3	3	4
ENG 122	Introductory Technical & Business Writing	3	1	3
MAT 144	Elementary Mathematical Analysis II	4		4
PHY 101	General Physics I	3		3
PHYL 101	General Physics II Laboratory		3	1

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SECOND YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
EET 211	Computer Systems/Microprocessors	3	3	4
EET 213	Semiconductor Devices	4	3	5
PHY 102	General Physics II	3		3
PHYL102	General Physics II Laboratory		3	1
Elective	Humanities			3

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SECOND SEMESTER

EET 204	Electromechanical Devices and Systems/Robotics	3	3	4
EET 265	Fiber Optic Communication Systems	3	3	4
Elective	Technical*			3
Elective	Social Science			3

14

*MAT 171 recommended for students transferring



EMERGENCY HEALTH SCIENCE

ASSOCIATE IN SCIENCE DEGREE*

This degree is designed for the certified EMT or Paramedic Health Practitioner. This degree will expand the student's education by adding general education courses required to earn an Associate degree. The program director will conduct an evaluation of the student's current certification. This review will include a review of transcripts and evidence of certification from a state agency and letter attesting to skill competency from applicable agency. Skills obtained in this degree will assist students to acquire further education through a bachelor degree program.

RECOMMENDED SEQUENCE

PARAMEDIC TRACK I (CURRENTLY CERTIFIED)

Entrance:		NJ State Paramedic Certification or PMD 106, 107, 108, 109			32 credits
COURSE#	COURSE	LEC	LAB	Cr.	
FIRST SEMESTER					
ENG 101	English Composition I	3	1	3	
MAT 119*	Algebra	3		3	
PSY 101	General Psychology	3		3	
BIO 105	Anatomy & Physiology I	3	3	4	
					13
SECOND SEMESTER					
ENG 102	English Composition II	3	1	3	
IDH 104	Cultural Diversity & Healthcare	3		3	
BIO 106	Anatomy & Physiology II	3	3	4	
HIS	Elective or				
HUG 101	Multidisciplinary Perspectives On Aging	3		3	
					13
THIRD SEMESTER					
PSY 105	Group Dynamics**	3		3	
CIS 100	Intro to Computer Applications	2	2	3	
EHS 201	Health Care Leadership	3		3	
EHS 202	Health Care Administration	3		3	
					12

THREE SEMESTERS = 38 CREDITS. TOTAL DEGREE CREDITS = 70 CREDITS.

PARAMEDIC TRACK II (NON-CERTIFIED PARAMEDIC)

COURSE#	COURSE	LEC.	LAB	Cr.	
FIRST SEMESTER					
ENG 101	English Composition I	3	1	3	
MAT 119	Algebra*	3		3	
PSY 101	General Psychology	3		3	
BIO 105	Anatomy & Physiology I	3	3	4	
					13
SPRING SEMESTER					
ENG 102	English Composition II	3	1	3	
IDH 104	Cultural Diversity & Healthcare	3		3	
BIO 106	Anatomy & Physiology II	3	3	4	
HIS	Elective or				
HUG 101	Multidisciplinary Perspectives On Aging	3		3	
					13
FALL SEMESTER					
PMD 106	Paramedic I	7		7	
PMD 107	Paramedic Procedures I	6		6	
					13
SPRING SEMESTER					
PMD 108	Paramedic II	7		10	
PMD 109	Paramedic Procedures II	6		9	
					19
FALL SEMESTER					
PSY 105	Group Dynamics**	3		3	
CIS 100	Intro to Computer Applications	2	2	3	
EHS 201	Health Leadership	3		3	
EHS 202	Health Administration	3		3	
					12

TOTAL DEGREE CREDITS = 70 CREDITS.

Students may enter this degree either before or after NJ state certification as an EMT or Paramedic. If the student is already certified as a NJ Paramedic, they must present the Program Director with copies of college transcripts, current certification card and a letter from an MICU Director and MICU Educator attesting to skill competency. Upon acceptance to the program, students will be awarded 32 credits for PMD 106, 107, 108, and 109.

*A higher level Math will be accepted in place of MAT 119.

** A 200-Level or higher Psychology will be accepted in place of PSY 105.

The above sequence is only a guide. Coursework can be completed in a part-time or full-time schedule.

Students should discuss specifics with the Paramedic Program Director.

* A diversity course (see page 110) is required for transfer to a 4-year institution

EMERGENCY HEALTH SCIENCE

ASSOCIATE IN SCIENCE DEGREE* cont'd



The specific objectives of this degree are that the graduate will develop skill in:

- understand cultural diversity as it relates to health care delivery;
- develop effective leadership skills necessary for advancement in health care;
- cultivate effective customer satisfaction as it relates to health care;
- to implement effective stress management techniques;
- to understand the importance of ethical practices in health care delivery;
- utilize effective marketing and public education programs for health care agencies;
- develop a general understanding of health care management;
- acquire employee recruitment and retention skills.

The graduate will demonstrate:

- critical thinking skills;
- effective interpersonal communication skills;
- leadership skills;
- improved application of ethical sensitivity skills;
- professional responsibility in the delivery of health care.

RECOMMENDED SEQUENCE

TRACK

Entrance: CPR certification or EMT 100 1 credit
NJ State EMT Certification or EMT 102 6 credits

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
LIS 105	Methods in Library Research	1		1
ENG 101	English Composition I	3	1	3
PSY 101	General Psychology	3		3
BIO 105	Anatomy & Physiology I	3	3	4
IDH 100	Dynamics of Health in Society	3		3
				14

SECOND SEMESTER				
ENG 102	English Composition II	3	1	3
BIO 106	Anatomy & Physiology II	3	3	4
HIS	Elective or			
HUG 101	Multidisciplinary Perspectives On Aging	3		3
IDH 101	Fundamentals of Health & Disease	3		3
IDH 104	Cultural Diversity & Healthcare	3		3
				16

THIRD SEMESTER				
CIS 100	Intro to Computers	2	2	3
MAT 119	Algebra*	3		3
PSY 105	Group Dynamics**	3		3
IDH 103	Research for the Health Care Professional	3		3
IDH 261	Medical Terminology	3		3
				15

FOURTH SEMESTER				
IDH 212	Pathophysiology	3		3
EHS 200	Case Studies in Emergency Medicine	3		3
EHS 201	Health Care Leadership	3		3
EHS 202	Health Care Administration	3		3
				12

FOUR SEMESTERS = 57 CREDITS. TOTAL DEGREE CREDITS = 64 CREDITS.

Students must possess current NJ state certification as an EMT to enter this degree program. Students will present the Program Director with copies of college transcripts (if applicable), current EMT certification card and letter from training officer attesting to skill competency. Upon acceptance to the program, students will be awarded 7 credits for EMT 101. The above schedule is a guide. Coursework can be completed in a part-time or full-time schedule. Students should discuss specifics with the Program Director.

*A higher level Math will be accepted in place of MAT 119.

** A 200-Level or higher Psychology will be accepted in place of PSY 105.

ENGINEERING

ASSOCIATE IN SCIENCE DEGREE[‡]

The Engineering program offers the first two years of a four-year engineering curriculum and prepares graduates for transfer to bachelor's degree programs at leading engineering colleges throughout the country. The first two years are common to most fields of engineering (e.g., civil, electrical, and mechanical), but in the second year some students may begin to specialize in a field of their choice (e.g. chemical engineering).

Union County College has dual admissions and formal transfer agreements with New Jersey Institute of Technology, Rutgers University, and other colleges. Due to the diversity of engineering curricula in certain fields of specialization, it is sometimes necessary for graduates to take one or two additional courses before attaining junior status at the transferring college.

Applicants for the engineering program must present two years of algebra and one year of geometry, trigonometry, chemistry, and physics, as high school entrance credits. Students deficient in any of these subjects must take the appropriate preparatory courses. All engineering candidates are required to take a mathematics and a physics placement test; students who are not placed in MAT 171 will not take PHY 111 and will be limited to a maximum of 15 credit hours during the first semester.

The specific objectives of this program are that the graduate must be able to demonstrate:

- critical thinking and problem solving skills in chemistry and physics, calculus and differential equations, engineering mechanics (i.e., statics, dynamics, and mechanics of materials), and fundamental electric circuits;
- computer-aided drafting (CAD) skills and knowledge of the principles of engineering graphics;
- the ability to apply knowledge of computer science, including computer programming skills using an appropriate programming language (e.g., C++);
- the ability to use appropriate computer software applications, including word processing, spreadsheets, and hand-held graphing calculators, in the study of science, mathematics, and engineering fundamentals;
- the ability to perform laboratory experiments and measurements, and to graph and analyze experimental data;
- the ability to work as a team member;
- the ability to write and communicate effectively.

AFTER UCC

Graduates are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

[‡] A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
CHE 111	General Chemistry I	3		3
CHEL 111	General Chemistry I Laboratory		3	1
EGG 111	Engineering Graphics	1	3	2
ENG 101	English Composition I	3	1	3
MAT 171	Unified Calculus I	4		4
MAT 148	Intro to Graphics Calculators	1		1
EGG 105	Intro to Fundamentals of Engineering	3		3
				17

SECOND SEMESTER

ENG 122	Introductory Technical and Business Writing or			
ENG 129	Public Speaking or			
ENG 102	English Composition II	3	1	3
Elective	See Note #1	3		3
MAT 172	Unified Calculus II	4		4
PHY 111	Mechanics	3		3
PHYL 111	Mechanics Laboratory		3	1
CSC 101	Computer Algorithms	2	3	3
				17

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
Elective	Technical (See Note #2)			3
MAT 271	Unified Calculus III	4		4
PHY 201	Electricity and Magnetism	3		3
PHYL 201	Electricity and Magnetism Laboratory		3	1
HIS 101	Intro to Western Civilization I or			
HIS 102	Intro to Western Civilization II	3		3
				14
SECOND SEMESTER				
Elective	Technical (See Note #3)			4
MAT 272	Differential Equations	4		4
ECO 201	Principles of Economics I or			
ECO 202	Principles of Economics II	3		3
Elective	Humanities	3		3
Elective	See Note #4	3		3
				17

Please consult with Engineering faculty for transferability of courses to specific 4-year institutions.

NOTE 1: PSY 101 or SOC 101 recommended in this time slot for students who intend to major in Computer and Electrical Engineering; CHE 112/CHEL 112 recommended for all other engineering students.

NOTE 2: CHE 211/CHEL 211 recommended for Chemical Engineering students. MAT 265 recommended for Computer and Electrical Engineering students. EGG 201 recommended for all other Engineering students.

NOTE 3: CHE 212/CHEL 212 recommended for Chemical Engineering students. EGG 207/EGGL 207 recommended for Computer and Electrical engineering students. EGG 202 recommended for all other Engineering students.

NOTE 4: EGG 251 recommended for students in Computer and Electrical Engineering. PSY 101 or SOC 101 recommended for all other Engineering students.

ENGINEERING MANAGEMENT

(OPTION OFFERED THROUGH ENGINEERING PROGRAM)
ASSOCIATE IN SCIENCE DEGREE[‡]

The Management Engineering Option is a transfer oriented program designed for students who are interested in careers in industrial management, manufacturing operations, plant engineering, marketing, quality assurance, and other similar areas. This curriculum combines elements from science, mathematics, and business and provides the graduate with a broad range of transfer options.



Students who choose this program are advised to seek departmental advising during their first semester to tailor their course selection to their individual career objectives and to the demands of the receiving institution.

Applicants for the Management Engineering Option must present two years of algebra and one year of geometry, trigonometry, chemistry, and physics, as high school entrance credits. Students deficient in any of these subjects must take the appropriate preparatory courses. All candidates are required to take a mathematics placement test.

The specific objectives of this program are that the graduate must be able to demonstrate:

- the ability to apply calculus and statistical methods to the analysis of business problems;
- the ability to apply the fundamental principles of physics and chemistry to solutions of technical problems;

- the ability to use the computer to aid in the analysis of business problems, particularly in technical fields;
- the ability to apply the fundamental principles of accounting, business problems, and economics to solutions of problems in industry;
- the ability to write and communicate effectively;
- the ability to work as a team member.

AFTER UCC

Graduates can transfer to a four-year program or prepare for a career in industrial management and manufacturing operations, plant engineering, marketing, quality assurance, and other similar areas.

[‡] A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
BUS 105	Organization and Management	3		3
CHE 101	Chemistry I	3	3	4
ENG 101	English Composition I	3	1	3
MAT 171	Unified Calculus I	4		4
Elective	Humanities			3
				17

SECOND SEMESTER

CHE 102	Chemistry II	3	3	4
CIS 100	Intro to Computer Applications	2	2	3
ENG 102	English Composition II	3	1	3
MAT 172	Unified Calculus II	4		4
Elective	Humanities			3
				17

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
ACC 103	Accounting I	4		4
CIS 101	Intro to Information Systems	2	2	3
ECO 201	Principles of Economics I	3		3
MAT 127	Elementary Statistics	3		3
PHY 101	General Physics I	3		3
PHYL 101	General Physics I Laboratory		3	1
				17

SECOND SEMESTER

ACC 104	Accounting II	4		4
ECO 202	Principles of Economics II	3		3
ENG 214	Writing About Science & Technology	3	1	3
PHY 102	General Physics II	3		3
PHYL 102	General Physics II Laboratory		3	1
Elective	General			3
				17

ENVIRONMENTAL SCIENCE

(OPTION OFFERED THROUGH ENGINEERING PROGRAM)
ASSOCIATE IN SCIENCE DEGREE[‡]

The Environmental Science Option offers the first two years of a bachelor's degree program with a major in environmental science or environmental engineering. It is designed for students who seek a career in some field of environmental protection, waste management, and pollution control.

Students who plan to transfer to an engineering program should take PHY 111-112 in lieu of PHY 101-102. Other course substitutions may be appropriate and students are encouraged to consult with a faculty advisor regarding appropriate course selections. Because of the diversity of undergraduate environmental programs, it may be necessary for students to take one or more second year courses at their transfer institutions.



Applicants for the Environmental Science Option must present two years of algebra and one year of geometry, trigonometry, chemistry, and physics, as high school entrance credits. Students deficient in any of these subjects must take appropriate preparatory credits. All students are required to take a mathematics placement test.

The specific objectives of this program are that the graduate must be able to demonstrate:

- critical thinking and problem solving skills in chemistry, physics, calculus, statistics, and economics;
- an understanding of ecological and geological principles and their relationship to problems involving environmental quality control;
- the ability to apply knowledge of computer science, including computer programming skills using an appropriate programming language (e.g., C++);
- the ability to perform laboratory experiments and measurements, and to graph and analyze experimental data;
- the ability to work as a team member;
- the ability to write and communicate effectively.

AFTER UCC

Graduates can expect to work in some field of environmental protection, waste management and pollution control.

[‡] A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
CHE 111	General Chemistry I	3	3	4
ENG 101	English Composition I	3	1	3
GEY 101	Physical Geology	3	3	4
MAT 171	Unified Calculus I	4		4
Elective	Humanities			3
				18

SECOND SEMESTER

CHE 112	General Chemistry II	3	3	4
ENG 102	English Composition II	3	1	3
GEY 102	Historical Geology	3	3	4
MAT 172	Unified Calculus II	4		4
Elective	Humanities			3
				18

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
CHE 201	Quantitative Analysis	3	6	5
ECO 201	Principles of Economics I	3		3
CSC 101	Computer Algorithms	2	3	3
ENG 122	Introductory Technical and Business Writing	3	1	3
PHY 101	General Physics I	3		3
PHYL 101	General Physics I Laboratory		3	1
				18

SECOND SEMESTER

BIO 103	Biology of People and the Environment	3	3	4
CHE 202	Instrumental Analysis	2	6	4
ECO 202	Principles of Economics II	3		3
MAT 127	Elementary Statistics	4		4
PHY 102	General Physics II	3		3
PHYL 102	General Physics II Laboratory		3	1
				19

FILM

(OPTION OFFERED THROUGH COMMUNICATIONS) ASSOCIATE IN ARTS DEGREE*



This program is designed for transfer to a bachelor's degree granting institution. Course work includes film theory and criticism. Students are required to consult with an advisor regarding appropriate option and course selection for their needs and interests.

The specific objectives of this program are that the graduate must be able to demonstrate:

- the ability to communicate their ideas verbally and in writing with a level of sophistication and fluency appropriate to college-level discourse;
- a recognition of the necessity of keeping abreast of current cultural, social and political issues and events as a cornerstone of citizenship in a democratic society;
- a level of comfort and proficiency with standard productivity software such as word processors, presentation managers and web browsers, as well as an understanding of the ways in which these tools are applied in the communications field;
- an awareness that learning is a complex, life-long process and not an event, a phenomenon, not an outcome;

- an understanding of the evolution of film as a medium, as well as a knowledge of the formal and thematic developments that constitute its history;
- hands on experience in the creation of a number of student video projects.

AFTER UCC

Graduates can transfer to a Bachelor's degree granting institution to major in Film, Journalism, Arts or any other Art/Humanities/Sciences program.

* A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
COM 100	Communications Technologies	3		3
COM 101	Mass Communications	3		3
ENG 101	English Composition I	3	1	3
PSY 101	General Psychology	3		3
Laboratory	Science or			
MAT	Mathematics*			3-4

15-16

SECOND SEMESTER

COM 109	Intro to Film Study	3		3
ENG 102	English Composition II	3	1	3
Laboratory	Science or			
MAT	Mathematics*			3-4
ENG 128	The Dynamics of Communication or			
ENG 129	Public Speaking	3		3
Elective	Social Science	3		3

15-16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
COM 209	Evolution of Film	3		3
ENG	200-Level	3		3
Modern Language or				
HIS 101	Intro to Western Civilization I	3		3
GOV 201	American Govt and Politics	3		3
Elective	Humanities	3		3
Elective	Social Science	3		3

18

SECOND SEMESTER

COM 216	Digital Video Editing and Multimedia	3		3
ENG	200-Level	3		3
Modern Language or				
HIS 102	Intro to Western Civilization II	3		3
GOV 202	American National Govt	3		3
Elective	Humanities	3		3

15

*Mathematics requirement must be MAT 117 or higher

FIRE SCIENCE TECHNOLOGY

ASSOCIATE IN APPLIED SCIENCE DEGREE

Fire Science Technology is a two-year Associate Degree program.

See paragraph on "Qualifications for Admission to Degree Programs" for desired high school background (see page 214).

The specific objectives of this program are that the graduate must be able to demonstrate:

- the ability to apply analytical skills to the reading of building blueprints and codes;
- knowledge of fire prevention, including fire prevention systems and building codes;
- the ability to apply problem solving skills to specific fire ground situations;
- knowledge of fire fighting strategies and tactics;
- knowledge of the organization and management of fire departments;
- knowledge of the procedures and management involved with incident command;
- the application of problem solving skills to the detection of fire and its causes;
- awareness and concern about the ethical implications of fire department and state government policies and individual practices;



- to communicate orally and in writing with others in a diverse society;
- an awareness of the diverse factors that shape the world, with particular application to fire science;
- the ability to use technology related to fire science;
- the ability to learn independently and to direct his/her own learning.

AFTER UCC

Graduates with this degree will have the basic knowledge necessary to begin a challenging career in fire protection.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
ENG 101	English Composition I	3	1	3
FST 103	Fire Protection	3		3
MAT 117	Intro to Mathematical Ideas	3		3
PSY 101	General Psychology	3		3
SOC 101	Principles of Sociology	3		3
				15

SECOND SEMESTER

CHE 106	Consumer & Environmental Chemistry	3	3	4
ENG 122	Intro Tech & Bus Writing	3	1	3
FST 102	Building Construction	3		3
FST 105	Fire Prevention	3		3
FST 106	Fire Fighting Tactics	3		3
				16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
FST 107	Hazardous Materials	3		3
FST 109	Fire Protection Systems	3		3
FST 113	Fire Department Organization and Management	3		3
FST 118	Fireground Strats & Concepts	3		3
Elective	Humanities			3
				15

SECOND SEMESTER

CIS 100	Intro to Computer Applications	2	2	3
FST 108	Fire Hydraulics	3		3
FST 111	Fire Causes and Detection	3		3
FST 119	Incident Command	3		3
GOV 204	Public Administration	3		3
Elective	Fire Science			3
				18

Graduates of the Union County Fire Academy will be granted 6 credits of advanced standing when they matriculate in the program.

Fire Science electives are to be selected from the following:

EMT 102 FST 112 FST 115

GAME DESIGN DEVELOPMENT

ASSOCIATE IN APPLIED SCIENCE DEGREE

Game Design Development is a comprehensive two-year program leading to an Associate in Applied Science degree. The program introduces students to a variety of programming and gaming concepts. Students learn the concepts of 3D graphics, particle systems, rendering, collision detection, and game algorithms. Students also gain an understanding of the connection between game design with physics and mathematics. For better design, students are also required to successfully complete fine arts and creative writing courses. The program provides students with the skills necessary for entry-level positions in the game design and development industry.



Upon successful completion of all program requirements, graduates will be able to:

- display a working knowledge and understanding of basic game design and development;
- understand basic game design terminology;
- recognize various types of games;
- demonstrate the ability to use current tools necessary to design and program interactive games;
- understand and discuss the role and importance of intellectual property, copyright, trademarks, and patents in gaming;
- demonstrate and use animation techniques in game design development;
- design and develop a game from creation to completion;
- discuss and explain the skills and concepts necessary to work in the game design industry including communication skills, interpersonal skills, time management skills, and verbal/non-verbal skills;
- locate, discern, and effectively use information to solve issues and/or problems;
- discuss and explain the importance of working independently as well as working as a team player;
- explain the value of good work ethics and professionalism.

AFTER UCC

Students will have developed the skills necessary for entry-level positions in the game design and development industry.

RECOMMENDED SEQUENCE

COURSE#	COURSE	LEC.	LAB	Cr.
SEMESTER 1				
BUS 101	Intro to Contemporary Business	3		3
CSC 100	Fundamentals of Programming	2	2	3
ENG 101	English Composition I	3	1	3
FIA 104	Basic Design	1	4	3
GDP 101	Fundamentals of Game Design	3		3
MAT 119	Algebra*	3		3
				18
SEMESTER 2				
CIS 124	Web and Multimedia	2	2	3
CIS 130	Intro to Visual Basic	2	2	3
GDP 110	Game Design & Development I	3		3
GDP 115	The Business of Gaming	3		3
FIA 202	Graphic Design I	1	4	3
				15
SEMESTER 3				
ENG 122	Intro Technical & Business Writing	3	1	3
GDP 201	Principles of Animation	2	2	3
GDP 210	Game Design & Development II	2	2	3
MAT 143	Elementary Mathematical Analysis I*	4		4
PHY 125	Elements of Physics 3			3
PHYL 125	Elements of Physics Laboratory	2		1
				17
SEMESTER 4				
ENG 215	Creative Writing	3		3
GDP 215	3D Game Programming	2	2	3
GDP 280	Game Development Portfolio	3		3
Elective	Fine Arts	3		3
Elective	General Education	3		3
				15

TOTAL 65 CREDITS

* A higher level math course may be substituted. Please check with program coordinator



GERONTOLOGY

ASSOCIATE IN ARTS DEGREE[‡]

Gerontology is an innovative field for persons who want to work with older adults. The degree program prepares students for an entry-level position in the field of Activities with older adults, or for advanced study at a four-year institution in a related field such as Social Work, Recreation Therapy, Psychology, or Rehabilitation. This program is also suitable for those who are already employed in agencies which serve older adults.

See paragraph "Qualification for Admission to Degree Program" for desired high school background (see page 214).

The specific objectives of this program are that the graduate must be able to demonstrate:

- an understanding of group dynamics and an ability to encourage effective communication among a small group;
- effective written and oral communication skills;
- critical thinking and problem solving skills, with emphasis on using community resources to solve specified problems;
- an understanding of the psychological effects of aging;
- an understanding of the social factors affecting diverse populations;
- an awareness of one's rights and responsibilities as a professional and as a citizen in a world community;
- the ability to learn independently and to direct his/her own learning.

In order to successfully complete this program, the student will be required to take the following courses and may be required to take additional electives. BE SURE TO CONFER WITH A UCC COUNSELOR WHEN PLANNING YOUR COURSE SCHEDULE.

AFTER UCC

Graduates can work in entry-level positions in the field of activities with older adults, or transfer for advanced study at a four-year institution in a related field such as Social Work, Recreation Therapy, Psychology, or Rehabilitation. This program is also suitable for those who are already employed in agencies which serve older adults.

Courses in the Gerontology Degree & Activities Certificate programs fulfill academic requirements toward certification by the National Certification Council for Activity Professionals (NCCAP). Students are encouraged to also take the Modular Education Program for Activity Professionals (MEPAP) offered by NCCAP.

In order to transfer to certain B.A. programs, you will need to take particular Biology, History & Government courses. Please consult the Gerontology Director to plan your courses if you are considering transferring after you earn your Associate Degree.

[‡] A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
ENG 101	English Composition I	3	1	3
HUG 101	Multidisciplinary Perspectives on Aging	3		3
HUS 101	Community Resources in Human Services	3		3
PSY 101	General Psychology	3		3
	Modern Language	3		3
				15

SECOND SEMESTER				
ENG 102	English Composition II	3	1	3
	Modern Language – second semester	3		3
MAT	Mathematics 117 or higher	3		3
SOC 101	Principles of Sociology	3		3
CIS	Any 3-credit Computer Course			3
PSY 105	Group Dynamics	3		3
				18

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
ENG 128	The Dynamics of Communication	3		3
HIS	Elective	3		3
SOC 206	Minorities in American Life or			
SOC 218	Women and Work	3		3
PSY 208	Abnormal Psychology	3		3
BIO 105	Anatomy & Physiology I*	3	3	4
				16

SECOND SEMESTER				
GOV	Elective	3		3
PSY 212	Psychology of Aging	3		3
FIA	Music or Art Elective	3		3
ENG	200-Level**	3		3
BIO 106	Anatomy & Physiology II**	3	3	4
				16

BIO 105 and BIO 106 are a two-semester sequence.

*BIO 102, BIO 107 or any laboratory science may be substituted

**BIO 118 Biology of Women or any 4-credit elective course can be taken instead of this course

GRAPHIC DESIGN/FINE ARTS

(OPTION OFFERED THROUGH LIBERAL ARTS)
ASSOCIATE IN ARTS DEGREE*

The Fine Arts Option in Graphic Design is a Liberal Arts transfer-oriented curriculum that provides students, through a core of visual arts/design related courses, a theoretical and practical understanding of the commercial art area of Graphic Design. Utilizing skills and techniques learned through a combined lecture/studio experience, students are introduced to the various aspects of the graphic communication process including the development of roughs, comps, layouts, pasteups, and mechanicals in a Macintosh-equipped digital laboratory. A specific approach to beginning and advanced design problem solving is emphasized. Additional topics of study include an analysis of graphic art production processes including photo digitizing, typography, and the use of illustration software programs.

See paragraph "Qualifications for Admission to Degree Programs" for desired high school background (see page 214).

The specific objectives of this program are that the graduate must be able to demonstrate:

- the theoretical and practical design skills involved in creating visuals combining images and typography;
- a knowledge of the use of diverse materials and various media traditionally employed in foundation-level graphic design studio activities;
- a creative familiarity with traditional layout, comps, thumbnail, and sketch modes of visualization;
- a critical and aesthetic knowledge of the history of graphic design;
- a practical understanding of the use of tools of digital design, including specialized computer software and design software programs;
- a portfolio of work that demonstrates competency in graphic design and provides the necessary support material needed for transfer acceptance into a four-year program or for an entry-level vocational position.



AFTER UCC

Graduates can transfer to a related program at a four-year college or university and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

* A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
ENG 101	English Composition I	3	1	3
FIA 104	Basic Design	3		3
	Modern Language	3		3
HIS 101	Intro to Western Civilization I	3		3
MAT 127	Elementary Statistics or			
MAT 143	Elementary Mathematical Analysis I			4
				16

SECOND SEMESTER				
ENG 102	English Composition II	3	1	3
FIA 109	Drawing I	3		3
	Modern Language	3		3
HIS 102	Intro to Western Civilization II	3		3
	Laboratory Science			4
				16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
ENG 200	200-Level Literature	3		3
FIA 115	Drawing II	3		3
FIA 108	Art Appreciation	3		3
FIA 202	Graphic Design I	3		3
PSY 101	General Psychology	3		3
MAT 144	Elementary Mathematics Analysis II or			
	Laboratory Science			4
				19

SECOND SEMESTER				
FIA 204	Graphic Design II	3		3
FIA 224	Digital Imaging for Art & Photography	3		3
PSY 102	Psychology of Personality	3		3
BUS 203	Principles of Advertising	3		3
ENG 128	Dynamics of Communication or			
ENG 129	Public Speaking	3		3
FIA	Diversity Course*	3		3
				18

*Students can take FIA 105 Music Appreciation, FIA 111 History of Art I, FIA 112 History of Art II, FIA 117, Music in the 20th Century to fulfill the Fine Arts Diversity Course requirement.

HEALTH SCIENCES

ASSOCIATE IN APPLIED SCIENCE DEGREE

This degree is designed for individuals who are currently enrolled in, or have previously completed a nationally accredited or state-licensed, healthcare certificate program. The program is designed to extend the students' clinical education by adding general education courses that will result in the Associate in Applied Science Degree. Graduates of this program may be eligible to continue in a baccalaureate level Health Science Program.

Upon completion of the requirements identified below, individuals will receive a minimum of 18 and up to 32 credits. The Chair of Health Technologies and an Allied Health Committee will conduct an evaluation, which shall be based upon review of transcripts from previous educational program(s) and evidence of successful completion of licensure/ registration in a healthcare occupation.

The specific objectives of this program are that the graduate must be able to demonstrate:

- critical thinking, interpersonal communication and leadership skills;
- ethical sensitivity and professional responsibility in the delivery of healthcare;
- an understanding of health care management and health care information;
- skills to acquire additional educational preparation and prepare for entering into the Bachelor of Science in Health Science Program at SHRP-UMDNJ.



AFTER UCC

Students can continue at a four-year college or university and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
ENG 101	English Composition I	3	1	3
BIO 105	Anatomy and Physiology I	3	3	4
PSY 101	General Psychology	3		3
IDH 261	Medical Terminology	3		3
ENG 128	Dynamics of Communication	3		3
				16

SECOND SEMESTER

ENG 102	English Composition II or			
ENG 122	Introductory Technical and Business Writing	3	1	3
BIO 106	Anatomy and Physiology II	3	3	4
PTA 102	Intro to Rehabilitation	2		2
IDH 102	Mathematics for the Health Sciences	3		3
CIS 100	Intro to Computer Application	2	2	3
				15

THIRD SEMESTER

CIS	Computer Proficiency Elective	3		3
Elective	Humanities	3		3
IDH 101	Fundamentals of Health and Disease	3		3
IDH 100	Dynamics of Health Care in Society	3		3
IDH 103	Research for the Health Care Professional	3		3
				15

THREE SEMESTERS TOTAL 46 CREDITS. OVERALL DEGREE REQUIRES 64 CREDITS.

To satisfy the recommendations for an Associate in Applied Sciences Degree, 32 general education credits will be needed.

If a student is interested in pursuing an advanced degree (baccalaureate) it is recommended that the student consult with an advisor regarding appropriate course selection.

HELP DESK (TECHNOLOGY SUPPORT SPECIALIST)

ASSOCIATE IN APPLIED SCIENCE DEGREE

The Help Desk Program is a comprehensive two-year program leading to an Associate in Applied Science degree. The program will provide students with the skills necessary to enter one of the fastest growing occupations. As technology increases in complexity so will the demand for educating well-trained personnel. The help desk has become and will continue to be an integral element of most business organizations. A good help desk person needs specific technical skills as well as communication, customer service, and people skills.

Upon successful completion of all program requirements, graduates will be able to:

- differentiate and understand the role and function of current and emerging technologies;
- demonstrate proficiency in the use of computer applications including word processing, spreadsheets, presentation software, and databases;
- demonstrate proficiency in Internet and Web technologies;
- demonstrate an understanding of programming concepts;
- discuss and explain the skills and concepts necessary to run an effective help desk including communication

skills, interpersonal skills, time management skills, and verbal/non-verbal skills;

- locate, discern, and effectively use information to solve issues and/or problems;
- discuss and explain the importance of working independently as well as working as a team player;
- explain the value of good work ethics and professionalism;
- identify basic troubleshooting techniques;
- understand and explain the necessity of information security and privacy.

AFTER UCC

Graduates will have developed the skills necessary to work as help desk support personnel.

RECOMMENDED SEQUENCE

COURSE#	COURSE	LEC.	LAB	CR.
SEMESTER 1				
Elective	Business see list below	3		3
CIS 107	Operating Systems for Help Desk	3	1	3
CIS 113	Word I	2	3	3
CIS 120	The Internet	2	2	3
ADM 140	Customer Service	3		3
ENG 101	English Composition I	3	1	3
				18

SEMESTER 2				
CIS 140	Help Desk	3	1	3
CIS 115	Excel	2	2	3
CIS 121	HTML Programming*	2	2	3
ENG 122	Intro Technical & Business Writing	3	1	3
MAT 119	Algebra**	3		3
				15

SEMESTER 3				
CIS 207	PC Troubleshooting & Repairs	2	2	3
CIS 116	Access	2	2	3
ENG 128	The Dynamics of Communication	3		3
Elective	Humanities			3
CIS 205	Data Communication & Networks	2	2	3
CSC 100	Fundamentals of Programming***	2	2	3
				18

SEMESTER 4				
CIS 117	PowerPoint	2	2	3
CIS 204	Database Management	2	2	3
Elective	Technology – see list below			3
PSY 101	General Psychology****	3		3
CIS 210	Principles of Information Security	3		3
				15

TOTAL 66 CREDITS

*CIS 122 may be substituted

** MAT 133 or a higher level math course may be substituted. Please check with program coordinator.

*** CIS 130 may be substituted

****SOC 101 may be substituted

BUS elective – BUS 101, BUS 105, BUS 107, BUS 200

Technology elective – CSC 290, CSC 285, CSC 101, ADM 214



ILLUSTRATION/FINE ARTS

(OPTION OFFERED THROUGH LIBERAL ARTS)
ASSOCIATE IN ARTS DEGREE[‡]

The Fine Arts Option in Illustration is a Liberal Arts transfer-oriented curriculum that provides students, through a core of visual arts/illustration-related courses, a theoretical and practical understanding of the commercial art area of illustration. Utilizing skills and techniques learned through a combined lecture/studio experience, students are taught to creatively differentiate between product, journalistic, and advertising forms of illustration. Considerable time is focused on learning specific studio media and techniques including the use of pencil and dry media, pen and ink, watercolor, oil, gouache, tempera, and acrylic paint. Study also includes concentration on beginning and advanced visual problem solving through use of illustration software in a Macintosh laboratory environment.

See paragraph "Qualifications for Admission to Degree Programs" for desired high school background (see page 214).

The specific objectives of this program are that the graduate must be able to demonstrate:

- a practical knowledge of the technique and materials used in textural and figurative depiction;
- a creative familiarity with traditional media of watercolor, colored pencil, ink wash, and gouache;
- a critical and aesthetic knowledge of historical approaches to illustration;
- the applied skills involved in interfacing computers and digital software with the

activities of illustration;

- a portfolio of work that demonstrates competency in illustration, and provides the necessary support material needed for transfer acceptance into a four-year program or for an entry-level vocational position.

AFTER UCC

Graduates can transfer to a myriad of four-year degree programs and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

[‡] A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
ENG 101	English Composition I	3	1	3
FIA 109	Drawing I	3		3
	Modern Language			3
HIS 101	Intro to Western Civilization I	3		3
MAT 127	Elementary Statistics or			
MAT 143	Elementary Mathematical Analysis I	4		4
				16

SECOND SEMESTER				
ENG 102	English Composition II	3	1	3
FIA 110	Painting I	3		3
	Modern Language			3
HIS 102	Intro to Western Civilization II	3		3
FIA 104	Basic Design	3		3
	Laboratory Science	4		4
				19

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
ENG	200-Level Literature course	3		3
FIA 115	Drawing II	3		3
FIA 209	Illustration I	3		3
PSY 101	General Psychology	3		3
MAT 144	Elementary Mathematical Analysis II or			
	Laboratory Science	4		4
				16

SECOND SEMESTER				
FIA 210	Illustration II	3		3
PSY 102	Psychology of Personality	3		3
BUS 203	Principles of Advertising	3		3
ENG 128	Dynamics of Communication or			
ENG 129	Public Speaking	3		3
GOV 202	American National Government or			
PHI 205	Intro to Philosophy	3		3
FIA	Diversity Course*			3
				18

* Students can take FIA 105 Music Appreciation, FIA 108 Art Appreciation, FIA 111 History of Art, FIA 112 History of Art II, or FIA 117 Music in the 20th Century to fulfill the Fine Arts Diversity Course requirement.

INFORMATION SYSTEMS TECHNOLOGY

ASSOCIATE IN SCIENCE DEGREE[‡]

Information systems (IS) technology changes are occurring across the US and the world. With these advances have also come changes in the ways that information can be accessed and shared. These have precipitated the need for well-educated IS professionals. This curriculum has been designed to meet the needs of current IS professionals as well as to prepare future IS professionals.



Information Systems positions are becoming more diversified. Students who complete the curriculum will have a strong foundation in interpersonal and communication skills, problem solving skills, critical thinking skills, and ethics.

The specific objectives of this program are that the graduate must be able to demonstrate:

- provide students with information about the various careers available and skills necessary for these careers within the field of information systems;
- provide students with interpersonal and communication skills necessary in a diverse society;
- develop in students critical thinking skills and approaches for problem solving;
- provide students with an understanding of databases and database management;

- develop in students an awareness of the Code of Ethics found in most IS professional organizations and a concern for the societal issues involved;
- promote in students a deep appreciation for the value of life long learning;
- develop in a diverse student community a recognition for the value of collaborative work in the contemporary business environment.

AFTER UCC

Graduates will work as an Information System professional in a variety of settings or transfer to a four-year degree program.

[‡] A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
ACC 103	Accounting I	3		4
BUS 105	Organization and Management	3		3
CIS 100	Intro to Computer Applications	2	2	3
ENG 101	English Composition I	3	1	3
HIS 101	Western Civilization I or Modern Language*	3		3
				16

SECOND SEMESTER				
CIS 101	Intro to Information Systems	2	2	3
ENG 102	English Composition II	3	1	3
HIS 102	Western Civilization II or Modern Language*			3
MAT	Mathematics**			3-4
PSY 101	General Psychology	3		3
				15-16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
BUS 201	Business Law I	3		3
CIS 116	Access	2	2	3
ECO 201	Economics I or			
ECO 202	Economics II	3		3
Elective	Laboratory Science			4
ENG	English***			3
				16

SECOND SEMESTER				
CIS 202	Structured Systems Analysis	3	1	3
CIS 204	Database Management	2	1	3
Elective	Humanities			3
MAT	Mathematics**			3-4
Elective	CIS/CSC			4
				16-17

TOTALS 63-64

NJ GENERAL EDUCATION REQUIREMENTS:

Math/Science/Technology, Communications, History or Humanities and Social Studies.

* A one-year sequence in either

** See advisor for appropriate mathematics course, check with transfer institution (two mathematics courses MAT 126 or higher)

*** ENG 122, ENG 128 or ENG 129



INTERNATIONAL STUDIES

(OPTION OFFERED THROUGH LIBERAL ARTS)
ASSOCIATE IN ARTS DEGREE*

The International Studies Option is designed for traditional transfer-oriented students seeking a baccalaureate or higher degree in international affairs leading to possible careers with multinational corporations, the federal government, or international organizations. Community leaders interested in foreign policy issues and business people seeking to expand their knowledge of the international economy within the global system may also find this program of interest.

The specific objectives of this program are that the graduate must be able to demonstrate:

- the ability to think critically about the global system;
- a familiarity with the history and culture of those civilizations which have interacted with the West over the last several centuries;
- knowledge of the basic operation of the international system of sovereign states from the Treaty of Westphalia in 1648 to its current evolution;
- an understanding of the causes of war and the efforts made to produce alternative methods of conflict resolution, including collective security through the United Nations;
- an awareness of the roles played by intergovernmental organizations (IGOs), such as WTO, WHO, UNESCO, and non-governmental organizations (NGOs), such as the International Red Cross, Amnesty International, and Green Peace, in the global system;
- familiarity with the development and growth of the Global Economy;
- an understanding of the role of multinational corporations (MNCs) within the international system;
- familiarity with statistics so that students can analyze population trends, economic projections, and political data;
- sensitivity to the different value systems, ideologies, national interests, and alternative business practices of various cultures.



WHERE YOU CAN GO FROM HERE

Graduates can transfer to a related program at a four-year college or university and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

* A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
CIS 110*	Computer Literacy****	1	1	1
ENG 101	English Composition I	3	1	3
	Modern Language***	3		3
HIS 101	Intro to Western Civ I**** or			
HIS 209	20th Century European History	3		3
MAT 117	Intro to Mathematical Ideas**** or			
CIS 100	Intro to Computer Applications* or			
	Higher level Math/Science/Technology course	3		3
GEO 201	World Geography**	3		3
				16

SECOND SEMESTER

ENG 102	English Composition II**** or			
ENG 122	Introductory Technical & Business Writing	3	1	3
	Modern Language***			3
HIS 102	Intro to Western Civ II**** or			
HIS 215	American Experience in the 20th Century	3		3
ECO 201	Principles of Economics I	3		3
MAT 127	Elementary Statistics** or			
	Higher level Statistics course	4		4
				16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
BIO 103	Biology of People and the Environment**** or			
	Other Laboratory Science	3	3	4
COM102	Reporting & News Writing or			
ENG 129	Public Speaking	3		3
	Modern Language***	3		3
GOV 201	American Government & Politics	3		3
ECO 209	The International Economy**	3		3
				16

SECOND SEMESTER

ENG	200-Level Literature course	3		3
	Modern Language***	3		3
GOV 202	American National Government	3		3
GOV 207	International Politics**	3		3
Electives		6		6
				18

*Requires Keyboarding Skills

**Specialization Courses within the Option

***Completion of the intermediate level in a foreign language meets the language requirement.

Substitution courses must be within the Humanities General Education Requirement.

****Check with Transfer Counselor or Program Coordinator on the appropriate course choice.

RECOMMENDED ELECTIVES:

BIO 101 Intro to Biology	ENG 200-Level course
BUS 209 Intro to Global Business	FIA 111 History of Art I
BUS 210 Marketing and the Global Environment	FIA 112 History of Art II
CIS 126 E-Commerce Fundamentals	GOV 204 Public Administration
ECO 202 Principles of Economics II	GOV 210 Third World, United Nations, and International Law Seminar
ECO 205 Money and Banking	MAT 246 Business Statistical Analysis



PRINT JOURNALISM

(OPTION OFFERED THROUGH COMMUNICATIONS)
ASSOCIATE IN ARTS DEGREE[‡]

This program is designed for transfer to a bachelor's degree granting institution. Course work includes theory and practice of reporting and writing news and features for print publications. Students are required to consult with an advisor regarding appropriate option and course selection for their needs and interests.

The specific objectives of this program are that the graduate must be able to demonstrate:

- the ability to communicate their ideas verbally and in writing with a level of sophistication and fluency appropriate to college-level discourse;
- a recognition of the necessity of keeping abreast of current cultural, social and political issues and events as a cornerstone of citizenship in a democratic society;
- a level of comfort and proficiency with standard productivity software such as word processors, presentation managers and web browsers, as well as an understanding of the ways in which these tools are applied in the communications field;
- an awareness that learning is a complex, life-long process and not an event, a phenomenon, not an outcome;
- a critical and active relationship with their culture's narratives and texts as well as a functional understanding of the various media used to convey them;
- the ability to compose articles and headlines appropriate to style requirements of a variety of publications, from newsprint and magazine to online and interactive formats.

AFTER UCC

Graduates can transfer to a four-year degree program and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

[‡] A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
COM 101	Mass Communications	3		3
ENG 101	English Composition I	3	1	3
HIS 101	Intro to Western Civilization I	3		3
Laboratory Science or				
MAT	Mathematics*			3-4
COM 100	Communications Technologies	3		3
				15-16

SECOND SEMESTER				
COM 102	Reporting and News Writing	3		3
ENG 102	English Composition II	3		3
Laboratory Science or				
MAT	Mathematics*			3-4
ENG 128	The Dynamics of Communication or			
ENG 129	Public Speaking	3		3
HIS 102	Intro to Western Civilization II	3		3
				15-16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
COM 202	Advanced Reporting & News Writing or			
COM 107	Publication Editing and Design or			
COM 214	Communications Practicum I or			
COM 111	Mass Communication Ethics	3		3
ENG	200-Level Modern Language	3		3
GOV 201	American Govt and Politics	3		3
PSY 101	General Psychology	3		3
Elective	Social Science	3		3
				18

SECOND SEMESTER				
COM 207	Advanced Publication Editing and Design or			
COM 215	Communications Practicum II or			
COM 111	Mass Communication Ethics	3		3
ENG	200-Level Modern Language	3		3
GOV 202	American National Government	3		3
Elective	Humanities or Social Science	3		3
				15

* Mathematics requirement must be MAT 117 or higher

LIBERAL ARTS

ASSOCIATE IN ARTS DEGREE*

The Liberal Arts program provides a broad foundation in a variety of subjects—languages and literature, the social sciences, mathematics, and the exact sciences. For many professions, such as teaching, law, government service, and social work, this background is essential. Many business organizations prefer employees with this general education rather than specialized training.

The Liberal Arts program is also recommended to students who enter college without a definite vocational goal who wish to explore the opportunities offered by many fields before deciding upon a career.

See paragraph "Qualifications for Admission to Degree Programs" for desired high school background (see page 214).

The specific objectives of this program are that the graduate must be able to demonstrate:

- critical thinking, problem solving skills, and effective communication skills;
- an awareness of and concern for the ethical implications of institutional policies and individual practices;
- an awareness of his/her rights and responsibilities as a citizen of a world community;
- the ability to communicate with others in a diverse society;
- an awareness of the diverse factors that shape the world in order to keep pace with the changing society;
- the ability to use technology for learning and research;
- the ability to learn independently and to direct his/her own learning;
- the knowledge of the history and elements of drama;
- the knowledge of the history and techniques of theater acting;
- the ability to perform effectively as an actor in a specified scene;
- the knowledge of the history and practice of dance, music, and visual arts;
- the ability to apply critical thinking and problem solving skills to situations involving acting, drama, visual arts, music or dance;

- the knowledge of the elements of painting and illustration;
- the ability to create a painting;
- the ability to create an illustration;
- the knowledge of the dynamics and structure of advertising in today's society, and the place of illustration in the advertising cultures;
- the ability to apply critical thinking and problem solving skills to illustration-related problems.



AFTER UCC

Graduates of this program receive a broad-based education that allows them to transfer to a four-year college or university and major in Literature, the Social Sciences, Mathematics, and the exact Sciences. For many professions, such as Teaching, Law, Government Service and Social Work, this background is essential.

* A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
ENG 101	English Composition I	3	1	3
	Modern Language	3		3
HIS 101	Intro to Western Civilization I	3		3
MAT	Mathematics*			3-4
PSY 101	General Psychology	3		3
15-16				

SECOND SEMESTER				
ENG 102	English Composition II	3	1	3
	Modern Language	3		3
HIS 102	Intro to Western Civilization II	3		3
Laboratory Science**		3	3	4
PSY 102	Psychology of Personality	3		3
16				

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
ECO 201	Principles of Economics I	3		3
ENG	200-Level Literature course	3		3
	Modern Language	3		3
GOV 201	American Government and Politics	3		3
Elective(s)	Mathematics, Science or Technology **			4-5
16-17				

SECOND SEMESTER				
ECO 202	Principles of Economics II	3		3
ENG	200-Level Literature course	3		3
	Modern Language	3		3
GOV 202	American National Government	3		3
ENG 128	Dynamics of Communication or			
ENG 129	Public Speaking or			
COM 101	Mass Communication			3
Elective				0-3
15-18				

* MAT 117 or higher. See Liberal Arts Programs guidelines under Mathematics course listings.

**A minimum of 12 credits is required in Mathematics, Science, and Technology. It is suggested that the liberal arts student choose electives from the following list:

AST 101, 102	CRJ 205	HIS 205	PHY 101, 102
BIO 101, 102	ENG 128, 129	HIS 209	PHY 105
BIO 103, 104	FIA 111, 112	HRS (ALL)	PSY 206, 207
BIO 109, 113	GEY 101, 102	MAT 127	SOC 101, 102
BIO 114, 118	GOV 205	MAT 161	URS 101
CHE 101, 102	HIS 105, 106	MAT 162	
CHE 106	HIS 201, 202	PHI 205	



LIBERAL STUDIES

(EXPLORING SCIENCE AND THE ARTS) ASSOCIATE IN SCIENCE DEGREE*

This program is for adults who have been away from secondary school at least four years. It provides an opportunity to explore different areas of study.

The A.S. degree is awarded upon satisfactory completion of no fewer than 64 credit hours of work selected from the various disciplines at the College, including a minimum of six to eight credit hours from each of the areas listed below.

See paragraph "Qualifications for Admission to Certificate and Degree Programs" for desired high school background (see page 214).

The specific objectives of this program are that the graduate must be able to demonstrate:

- critical thinking, problem solving skills, and effective communication skills;
- an awareness of and concern for the ethical implications of institutional policies and individual practices;
- an awareness of his/her rights and responsibilities as a citizen of a world community;
- the ability to communicate with others in a diverse society;
- an awareness of the diverse factors that shape the world in order to keep pace with the changing society;
- the ability to use technology for learning and research;
- the ability to learn independently and to direct his/her own learning.



AFTER UCC

Graduates can transfer to a four-year college or university and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

* A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

COURSES	CR.
1. Business and Public Policy	6
2. Communication	6
3. Humanities	6
4. Mathematics, Science and Technology*	9-11
5. Social Science	7-9
6. Electives	31-33

1. Business and Public Policy: Business, Criminal Justice, Economics, Government, and Urban Studies.
2. Communication: Courses in oral and written communication.
3. Humanities: Fine Arts (Arts, Music, and Drama), French, German, History, Italian, Literature, Philosophy, and Spanish.
4. Mathematics, Science & Technology: Astronomy, Biology, Chemistry, Engineering, Geology, Mathematics, Physics, Computer Information Systems & Computer Science Data Processing.
5. Social Science: Education, Psychology, and Sociology.
6. Electives: Credit courses chosen from any discipline.

* A minimum of 3 credits in Mathematics and 4 credits in Science are required. The science course must be a laboratory science.

MANUFACTURING ENGINEERING TECHNOLOGY

ASSOCIATE IN APPLIED SCIENCE DEGREE

This is a comprehensive two-year program which leads to an Associate in Applied Science degree. Manufacturing Engineering Technology, commonly associated with Computer Integrated Manufacturing (CIM), prepares its graduates to work in the automated environment created by computer-aided design, robotics, computer-numerical controlled machinery, and inventory automation. The CIM curriculum combines electronics and microprocessors, mechanical design and manufacturing methods, and CAD/CAM and robotics to provide the specialized training required by the factories of the future. CIM graduates also have the option to pursue a Bachelor of Science Degree in Engineering Technology at a four-year institution.

See paragraph on "Qualifications for Admission to Degree Programs" for desired high school background (see page 214).

The specific objectives of this program are that the graduate shall be able to demonstrate:

- an ability to apply computer-aided drafting (CAD) skills to prepare working detail, assembly and installation type engineering drawings to industrial standards;
- an ability to apply Geometric Dimensioning and Tolerancing (GD&T) techniques to engineering drawings;
- an ability to synthesize and integrate electro-mechanical devices such as actuators, motors, transducers, tachometers, amplifiers and sensors;
- an ability to troubleshoot digital circuits using digital test instruments such as pulse generators, oscilloscopes, and logic probes;
- an ability to select and specify materials for mechanical applications considering strength, weight, corrosion, finish, and cost;

- an ability to read schematic circuits showing counters, registers, encoders, decoders, multiplexers, and memory units;
- an ability to select and specify appropriate screw threads and fasteners considering size, thread form, and series and head type;
- an ability to use CAD/CAM software and hardware to create part geometry, generate a numerical control program, and operate a machine tool to produce an actual part;
- the knowledge of the basic principles of statics and strength of materials to compute forces, stresses, and strains in simple machines and machine frames;
- an ability to use standard ANSI tables for sizing and tolerancing of mating parts;
- an ability to utilize computer software applications such as word processing, spreadsheets, basic programming, and mathematical computing.

AFTER UCC

Graduates work in the automated environment created by computer-aided design, Robotics, Computer-Numerical Controlled Machinery, and inventory automation.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
ENG 101	English Composition I	3	1	3
MAT 143	Elementary Mathematical Analysis I	4		4
EET 101	Principles of DC Circuits	3	3	4
MET 106	Engineering Materials & Processes	2	3	3
MET 109	Computer Aided Drafting	2	3	3

17

SECOND SEMESTER

ENG 122	Introductory Technical & Business Writing (or ENG 102)	3	1	3
EET 102	Principals of AC Circuits	2	3	3
MAT 144	Elementary Mathematical Analysis II	4		4
MET 104	Engineering Drawings	3	1	3
PHY 101	General Physics I	3		3
PHYL101	General Physics Laboratory I		3	1

17

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
CSC 115	Intro to Computer Programming	2	2	3
EET 111	Digital Computer Fundamentals	3	3	4
MET 112	Mechanics-Statics	3		3
PHY 102	General Physics II	3		3
PHYL102	General Physics II Laboratory		3	1
Elective	Social Science			3

17

SECOND SEMESTER

CIT 210	Strength of Materials	3	1	3
EET 211	Computer Systems/ Microprocessors	3	3	4
MET 219	CAD/CAM	2	3	3
Elective	Humanities			3
Elective	Technical*			3

17

*MAT 171 Unified Calculus required for transfer to a 4-year institution



MECHANICAL ENGINEERING TECHNOLOGY

ASSOCIATE IN APPLIED SCIENCE DEGREE

Mechanical Engineering Technology (MET) is a comprehensive two-year program which leads to an Associate in Applied Science degree. MET graduates are prepared to work in engineering and manufacturing firms and research and development laboratories. Typical positions are in the areas of Computer-Aided Design (CAD), machinery and tool design, Computer Integrated Manufacturing (CIM), facilities design, electronic packaging, CAD/CAM and materials testing. MET graduates also have the option to pursue a Bachelor of Science Degree in Engineering Technology at a four-year institution.

See paragraph on "Qualifications for Admission to Degree Programs" for desired high school background (see page 214).



The specific objectives of this program are that the graduate shall be able to demonstrate:

- an ability to apply computer-aided drafting (CAD) skills to prepare working detail, assembly and installation type engineering drawings to industrial standards;
- an ability to apply Geometric Dimensioning and Tolerancing (GD&T) techniques to engineering drawings;
- an ability to select and specify materials for mechanical applications considering strength, weight, corrosion, finish, and cost;

- an ability to select and specify appropriate screw threads and fasteners considering size, thread form, and series and head type;
- an ability to use CAD/CAM software and hardware to create part geometry, generate a numerical control program, and operate a machine tool to produce an actual part;
- the knowledge of the basic principles of statics and strength of materials to compute forces, stresses and strains in simple machines and machine frames;
- knowledge of the basic principles of fluid mechanics to calculate hydrostatic pressure, forces on submerged surfaces, flow rates and pressure drops in pipe lines;
- an ability to use standard ANSI tables for sizing and tolerancing of mating parts;
- an ability to utilize computer software applications such as word processing, spreadsheets, basic programming, and mathematical computing.

AFTER UCC

Graduates work in engineering and manufacturing firms and research and develop laboratories. Typical positions are in the areas of Computer-Aided Design, Machinery and Tool Design, Computer Integrated Manufacturing, Facilities Design, Electronic packaging, CAD/CAM and Materials Testing. MET graduates also have the option to pursue a bachelor of science degree in Engineering Technology at a four-year institution.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
ENG 101	English Composition I	3	1	3
MAT 143	Elementary Mathematical Analysis I	4		4
CSC 115	Intro to Computer Programming	2	2	3
MET 106	Engineering Materials and Processing	2	3	3
MET 109	Computer-Aided Drafting	2	3	3

16

SECOND SEMESTER

ENG 122	Introductory Technical & Business Writing (or ENG 102)	3	1	3
MAT 144	Elementary Mathematical Analysis II	4		4
PHY 101	General Physics I	3		3
PHYL101	General Physics I Laboratory		3	1
MET 104	Engineering Drawings	3	1	3
MET 112	Mechanics-Statics	3		3

17

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
PHY 102	General Physics II	3		3
PHYL 102	General Physics II Laboratory		3	1
CIT 215	Fluid Mechanics	3	1	3
CIT 210	Strength of Materials	3	1	3
EET 101	Principles of DC Circuits	3	3	4
Elective	Social Science	3		3

17

SECOND SEMESTER

EET 111	Digital Computer Fundamentals	3	3	4
MET 201	Structural Design	3	3	4
MET 219	CAD/CAM	2	3	3
Elective	Humanities			3
Elective	Technical*			3

16

* MAT 171 Unified Calculus required for Transfer to a 4-Year Institution

MULTIMEDIA

(OPTION OFFERED THROUGH COMMUNICATIONS) ASSOCIATE IN ARTS DEGREE*

This program is designed for transfer to a bachelor's degree-granting institution. Students will learn the fundamentals of multimedia design and gain practical experience in the development of multimedia content through the fusion of audio, video, images and text. Students are required to consult with an advisor regarding appropriate option and course selection for their needs and interests.



The specific objectives of this program are that the graduate must be able to demonstrate:

- the ability to communicate their ideas verbally and in writing with a level of sophistication and fluency appropriate to college-level discourse;
- a recognition of the necessity of keeping abreast of current cultural, social and political issues and events as a cornerstone of citizenship in a democratic society;
- a level of comfort and proficiency with standard productivity software such as word processors, presentation managers and web browsers, as well as an understanding of the ways in which these tools are applied in the communications field;
- an awareness that learning is a complex, life-long process and not an event, a phenomenon, not an outcome;
- facility with the cutting-edge tools necessary to be competitive in the high-technology arena of multimedia development and design;

- the ability to work effectively as a member of a team;
- professional competence in the technical and theoretical skill-set that constitutes the working toolbox of today's multimedia developer and web design specialist.

AFTER UCC

Graduates may transfer to a bachelor's degree granting institution to major in Multimedia/Communications, Journalism, or various degree programs and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

* A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
COM101	Mass Communications	3		3
ENG 101	English Composition I	3	1	3
PSY 101	General Psychology	3		3
	Laboratory Science or			
MAT	Mathematics*			3-4
COM 100	Communications Technologies	3		3
				15-16

SECOND SEMESTER

COM112	Multimedia Dev I-Presentations	3		3
ENG 102	English Composition II	3	1	3
	Laboratory Science or			
MAT	Mathematics*			3-4
ENG 128	The Dynamics of Communication or			
ENG 129	Public Speaking	3		3
FIA 108	Appreciation of Arts	3		3
				15-16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
COM 216	Digital Video Editing and Multimedia Imaging	3		3
ENG	200-Level Modern Language or	3		3
HIS 101	Intro to Western Civilization I	3		3
GOV 201	American Govt and Politics	3		3
Elective	Humanities	3		3
Elective	Social Science	3		3
				18

SECOND SEMESTER

COM 212	Multimedia Dev II-Authoring	3		3
ENG	200-Level Modern Language or	3		3
HIS 102	Intro to Western Civilization II	3		3
GOV 202	American National Government	3		3
Elective	Humanities	3		3
				15

*Mathematics requirement must be MAT 117 or higher



MUSIC/FINE ARTS

(OPTION OFFERED THROUGH LIBERAL ARTS)
ASSOCIATE IN ARTS DEGREE[‡]

The study of music will include an exploration of the various styles and periods of music throughout history, as well as the acquisition of basic music skills such as reading music, playing simple instruments, and conducting song sessions. Discussions and listenings will illuminate the different forms of music.

See paragraph "Qualifications for Admission to Degree Programs" for desired high school background (see page 214).



The specific objectives of this program are that the graduate must be able to demonstrate:

- basic general musicianship skills;
- a basic understanding and appreciation of various musical styles;
- a general understanding of formal creative issues, including musical form, melody, harmony, rhythm, texture, motive, instruments, and orchestra;
- basic music theory, including notation, intervals, scales, and triads;
- the necessary knowledge for teaching general music at the elementary school level.

AFTER UCC

Graduates may transfer to a four-year college or university and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

[‡] A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
ENG 101	English Composition I	3	1	3
FIA 105	Music Appreciation	3		3
	Modern Language	3		3
HIS 101	Intro to Western Civilization I	3		3
MAT 127	Elementary Statistics or			
MAT 143	Elementary Mathematical Analysis I	4		4
				16

SECOND SEMESTER				
ENG 102	English Composition II	3	1	3
FIA 103	Fundamentals of Music	3		3
	Modern Language	3		3
HIS 102	Intro to Western Civilization II	3		3
	Laboratory Science			4
				16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
ENG	200-Level Literature course	3		3
FIA 117	Music in the 20th Century	3		3
GOV 202	American National Government	3		3
PSY 101	General Psychology	3		3
MAT 144	Elementary Mathematical Analysis II or			
	Laboratory Science	4		4
				16

SECOND SEMESTER				
ENG 128	Dynamics of Communication or			
ENG 129	Public Speaking	3		3
FIA 106	History of Music	3		3
GOV 201	American Government and Politics or			
PHI 205	Intro to Philosophy	3		3
PSY 102	Psychology of Personality	3		3
FIA	Fine Arts Course*	3		3
FIA	Diversity Course**			3
				18

* Students can take a Fine Arts course elective in Dance, Drama, Photography, or Visual Arts to fulfill the Fine Arts Course requirement.

**Students can take FIA 108 Art Appreciation, FIA 111 History of Art I, or FIA 112 History of Art II to fulfill Fine Arts Diversity Course requirement.

NUCLEAR MEDICINE

ASSOCIATE IN SCIENCE DEGREE[‡]

By virtue of an agreement between Union County College and the Muhlenberg Regional Medical Center Harold B. and Dorothy A. Snyder Schools, Plainfield, New Jersey, Union County College confers a degree of Associate in Science upon graduates of the Hospital sponsored school who have fulfilled the requirements for the degree specified by Union County College.

Students in the program earn college credits in English, mathematics, biology, physics, chemistry, social sciences and humanities electives in classes and laboratories conducted at Union County College. Nuclear Medicine Technology courses are the primary responsibility of the program. Students must apply to Muhlenberg for admission to the Nuclear Medicine Technology Program by March 31 for the fall semester. At least half of the required science courses and English 101 must have been completed at the time of application. All prerequisite courses must be completed by July 15 to be considered for entry into the program.

Admission into the program is competitive.

The Joint Review Committee on Educational Programs in Nuclear Medicine Technology and the New Jersey Department of Environmental Protection, Radiologic Technology Board of Examiners accredits Muhlenberg Regional Medical Center Harold B. and Dorothy A. Snyder School of Nuclear Medicine Technology.

Students are enrolled in the School of Nuclear Medicine Technology and are matriculated by Union County College. They are eligible to participate in all student activities at Union County College and have the same rights and privileges as all other college students.

Graduates are eligible to sit for the American Registry in Radiologic Technology, Nuclear Medicine Technology Certification Board, and the New Jersey State Licensure Examination.

Students interested in the program should contact the Muhlenberg Regional Medical

Center Harold B. and Dorothy A. Snyder School of Nuclear Medicine Technology at (908) 668-2844 or (908) 688-2772 for additional information.

Graduates of the School of Nuclear Medicine Technology will be able to:

- provide patient care as required in the nuclear medicine department;
- perform diagnostic nuclear medicine studies, including patient preparation, instrument preparation, patient positioning, study acquisition and computer processing;
- assist with therapeutic nuclear medicine procedures;
- utilize good communications skills, problem solving skills, and conflict management techniques;
- prepare and administer radiopharmaceuticals, and non-radioactive pharmaceuticals as allowed by law;
- engage in good radiation safety practices;
- perform quality control procedures on nuclear medicine equipment;
- perform administrative duties as required of nuclear medicine technologists;
- practice the principles of medical ethics and adhere to the regulations and laws governing the practice of nuclear medicine technology;
- evaluate current issues in health care;
- evaluate scientific research for validity and applicability as it relates to the practice of nuclear medicine.

Leading to a Diploma in Nuclear Medicine Technology from Muhlenberg Regional Medical Center Harold B. and Dorothy A. Snyder Schools and an Associate in Science Degree from Union County College**

[‡] A diversity course (see page 110) is required for transfer to a 4-year institution

KEY TO FOOTNOTES (on page 68):

+Denotes the courses that will fulfill the requirements for a diploma from Muhlenberg Regional Medical Center and/or an Associate in Science Degree from Union County College.

*Denotes courses recommended if a baccalaureate degree from Thomas Edison State College is desired.

Students who are planning to earn a BS degree from Thomas Edison State College are encouraged to take PHY 102 during the summer between the pre-clinical and the clinical components.

**All pre-clinical and clinical courses MUST be successfully completed to earn a diploma from Muhlenberg Regional Medical Center and an Associate in Science degree from Union County College.

4 – RADM 102 which is an online course, is required if the new student does not pass the Program's mathematics competency test. This course can be taken the summer before the Clinical Program or in the fall semester.

5 – If the student has never had a medical terminology course, this online course can be taken during the summer prior to starting the program, or in the first semester.

7 – Radiographers are exempted from this course and can therefore take the chemistry prerequisite during this semester.

8 – Radiographers are permitted to take the chemistry prerequisite during the first semester as they are exempt from NMT 135 and take a 1 credit introductory course instead of the 3 credit course.

9 – This online course can be taken during the spring or summer semester.



NUCLEAR MEDICINE cont'd

RECOMMENDED SEQUENCE

12 MONTH FULL-TIME CURRICULUM

A student may take a maximum of 17 credits per semester. If necessary, the student will complete the program in 16 months instead of 12 months.

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER (FALL)				
BIO 105	Anatomy & Physiology I	3	3	4
ENG 101	English Composition I	3		3
MAT 119	Algebra	3		3
MAT 143	Elementary Mathematical Analysis I	3	3	4
PSY 101	General Psychology	3		3
CHE105	Chemistry-Health Sciences+	3	3	4
CHE 111	General Chemistry I*	3	3	4
SECOND SEMESTER (SPRING)				
BIO 106	Anatomy & Physiology II	3	3	4
ENG 102	English Composition II	3		3
PHY125	Elements of Physics+	3	3	4
PHY 101	General Physics I*	3	3	4
CHE 112	Chemistry II*	3	3	4
Elective	Humanities	3		3
FALL SEMESTER				
NMT 101	Intro to Nuclear Medicine for Radiographers or	1		1
NMT 102	Intro to Nuclear Medicine for Non-Radiographers	3		3
NMT 110	Nuclear Medicine Physics	3		3
NMT 120	Nuclear Medicine Procedures I	4		4
NMT 130	Nuclear Medicine Instrumentation I	4		4
NMT 135	Radiation Biology & Radiation Protection ⁷	2		2
RADM102	Radiation Mathematics ⁴	2		2
RNT 101	Medical Terminology ⁵	1		1
CHE 111	General Chemistry I ⁸	3	3	4
CLPN901	Clinical Practicum I			2 days/wk
Total Credits				12-17
WINTER INTERSESSION				
CLPN901	Clinical Practicum I (continued)			5 days/wk
SPRING SEMESTER				
NMT 121	Nuclear Medicine Procedures II	4		4
NMT 140	Radiochemistry & Radiopharmacy	4		4
NMT 131	Nuclear Medicine Instrumentation II	3		3
NMT 201	Health Care Today ⁹	2		2
CIS 100	Intro to Computer Systems	2	2	3
CLPN 902	Clinical Practicum II			3 days/wk
Total Credits				11-16
SUMMER SEMESTER				
NMT 222	Nuclear Medicine Procedures III	2		2
NMT 240	Nuclear Medicine Seminar I	1		1
NMT 241	Nuclear Medicine Seminar II	2		2
NMT 201	Health Care Today ⁹	2		2
NMT 202	Electrophysiology	1		1
CLPN903	Clinical Practicum III			4 days/wk
Total Credits				6-8

RECOMMENDED SEQUENCE

16 MONTH PART-TIME CURRICULUM

The part-time student should seriously consider completing RADM 102 Radiation Mathematics, RNT 101 Medical Terminology, and CIS 100 Intro to Computer Systems during the summer prior to starting the Clinical Program. See Summer Semester (Optional).

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER (FALL)				
BIO 105	Anatomy & Physiology I	3	3	4
ENG 101	English Composition I	3		3
MAT 119	Algebra	3		3
MAT 143	Elementary Mathematical Analysis I	3	3	4
PSY 101	General Psychology	3		3
CHE105	Chemistry-Health Sciences+	3	3	4
CHE 111	General Chemistry I*	3	3	4
SECOND SEMESTER (SPRING)				
BIO 106	Anatomy & Physiology II	3	3	4
ENG 102	English Composition II	3		3
PHY 125	Elements of Physics+	3	3	4
PHY 101	General Physics I*	3	3	4
CHE 112	Chemistry II*	3	3	4
Elective	Humanities	3		3
FALL SEMESTER				
NMT 101	Intro to Nuclear Medicine for Radiographers or	1		1
NMT 102	Intro to Nuclear Medicine for Non-Radiographers	3		3
NMT 110	Nuclear Medicine Physics	3		3
NMT 120	Nuclear Medicine Procedures I	4		4
RADM102	Radiation Mathematics ⁴	2		2
RNT101	Medical Terminology ⁵	1		1
CHE111	General Chemistry I ⁷	3	3	4
CLPN 901	Clinical Practicum I			2 days/wk
Total Credits				8-13
WINTER INTERSESSION				
CLPN901	Clinical Practicum I (continued)			5 days/wk
SPRING SEMESTER				
NMT 121	Nuclear Medicine Procedures II	4		4
NMT 140	Radiochemistry & Radiopharmacy	4		4
NMT 131	Nuclear Medicine Instrumentation II	3		3
CIS 100	Intro to Computer Systems	2	2	3
CLPN902	Clinical Practicum II			2 days/wk
Total Credits				11-14
SUMMER SEMESTER				
NMT 222	Nuclear Medicine Procedures III	2		2
NMT 240	Nuclear Medicine Seminar I	1		1
NMT 241	Nuclear Medicine Seminar II	2		2
NMT 202	Electrophysiology	1		1
CLPN903	Clinical Practicum III			4 days/wk
Total Credits				6
SECOND FALL SEMESTER				
NMT 130	Nuclear Medicine Instrumentation I	4		4
NMT 135	Radiation Biology & Radiation Protection ⁷	2		2
NMT 201	Health Care Today ⁹	2		2
CLPN903	Clinical Practicum III (continued)	2-1/2		days/wk
Total Credits				6-8

COOPERATIVE PROGRAMS IN PROFESSIONAL NURSING

ASSOCIATE IN SCIENCE DEGREE[‡]

By virtue of an agreement between the College and the Trinitas School of Nursing, Elizabeth, New Jersey, and the School of Nursing of the Muhlenberg Regional Medical Center Harold B. and Dorothy A. Snyder Schools, Plainfield, N.J., the College confers the degree of Associate in Science upon graduates of the Nursing Schools who have fulfilled the requirements for the degree specified by the College and who have received a Diploma in Nursing from one of the Schools. Graduates of the Schools of Nursing are eligible to sit for the National Council Licensing Examination for registered nurse licensure.

Students earn college credits in English, psychology, sociology, biology, and chemistry over the course of the programs in classes and laboratories conducted in the College. Nursing courses are conducted at the respective Schools of Nursing.

The Trinitas School of Nursing and Muhlenberg Regional Medical Center School of Nursing are approved by the New Jersey State Board of Nursing to conduct programs in professional nursing and are fully accredited by the National League for Nursing Accrediting Commission.



Trinitas School of Nursing offers day and evening division courses of study, as well as a program for Licensed Practical Nurses interested in continuing their nursing education. The RN Completion Program is designed for Licensed Practical Nurses who wish to return to school, but need to maintain their employment status. The program is offered 3 evenings per week for one year, with spring, summer, and fall semester courses. Classroom and clinical experiences will be designed to meet the specific needs of the LPN.

Muhlenberg Regional Medical Center School of Nursing offers a day or evening track in the nursing courses. Muhlenberg offers an Accelerated Program designed for individuals who have earned a baccalaureate or graduate degree in another discipline and wish to continue their studies in nursing. The nursing or clinical portion of the program is completed in one year by attending from January through December as a full-time day student. Muhlenberg also offers an LPN to RN Career Ladder Program. After successful completion of an LPN Transition course, the LPN program may be completed in 2 semesters.

Students are enrolled in the respective Schools of Nursing and are matriculated by the College. They are eligible to participate in all student activities at Union County College and they have the same rights and privileges as all other college students.

Graduates of the Cooperative Programs wishing to transfer into a Baccalaureate Nursing Program can expect that the basic program will be evaluated by the receiving institution and that transfer credits for selected courses taken in the Cooperative Programs are awarded at the discretion of the receiving institution. An articulation agreement with Kean University, Rutgers University and Wagner College for B.S.N. education has been established.

AFTER UCC

Nursing graduates may sit for the NCLEX examination of the National Council of State Boards of Nursing, Inc. in order to become licensed Registered Nurses (R.N.)

[‡] A diversity course (see page 110) is required for transfer to a 4-year institution

MUHLENBERG REGIONAL MEDICAL CENTER HAROLD B. AND DOROTHY A. SNYDER SCHOOLS

SCHOOL OF NURSING

Students interested in receiving additional information about, or an application to the program should contact the Director of Admission and Recruitment Services, Muhlenberg Regional Medical Center Harold B. and Dorothy A. Snyder Schools, Park Avenue and Randolph Road, Plainfield, N.J., 07061.

The specific objectives of this program are that the graduate must be able to demonstrate:

- the ability to function as a graduate professional nurse within structured health settings;
- the ability to provide competent nursing care through application of nursing theory and concepts from the behavioral and natural sciences, the humanities, ethical principles, and legal standards;
- the ability to accept accountability/responsibility for professional practice as a nurse;
- the ability to teach clients practices related to the promotion, maintenance, and restoration of health and to support and comfort the suffering and dying;
- the ability to cooperate with health team members to facilitate optimal health of clients in primary, secondary, and tertiary settings;
- the ability to select appropriate communication, coordination, and collaborative skills when interacting with individuals and groups;
- the ability to learn independently and engage in lifelong learning;
- the ability to apply critical thinking to nursing care situations.

WHERE YOU CAN GO FROM HERE

Graduates of these programs can either work in the Nursing/Health professions or continue their educational pursuits.

RECOMMENDED SEQUENCE – DAY AND EVENING DIVISIONS

GENERIC TRACK

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
BIO 105	Anatomy and Physiology I ¹	3	3	4
CHE105	Chemistry-Health Sciences ²	3	3	4
ENG 101	English Composition I	3	1	3
NURM100	Mathematics for Pharmacology	1		1
NURM 119	Intro to Nursing Concepts	3		3
				15
SECOND SEMESTER				
BIO 106	Anatomy and Physiology II ¹	3	3	4
PSY 101	General Psychology	3		3
NURM 121	Nursing I	4	12	8
				15
THIRD SEMESTER				
BIO 108	Microbiology ¹	3	3	4
PSY 205	Child Psychology	3		3
NURM 122	Nursing II	4	12	8
				15
FOURTH SEMESTER				
SOC 101	Principles of Sociology	3		3
ENG 102	English Composition II	3	1	3
NURM 221	Nursing III	4.5	13.5	9
				15
FIFTH SEMESTER				
NURM 222	Nursing IV	4.5	13.5	9
Electives ³	(2)			6
				15
Nursing Credits:			37	
General Education Credits:			38	
Total:			75	

ACCELERATED TRACK

COURSES AT UNION COUNTY COLLEGE (IF NECESSARY)

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
BIO 105	Anatomy & Physiology I ¹	3	3	4
BIO 106	Anatomy and Physiology II ¹	3	3	4
BIO 108	Microbiology ¹	3	3	4
CHE 105	Chemistry-Health Sciences ²	3	3	4
ENG 101	English Composition I	3	1	3
ENG 102	English Composition II	3	1	3
PSY 101	General Psychology	3		3
PSY 205	Child Psychology	3		3
SOC 101	Principles of Sociology	3		3
NURM 100	Mathematics for Pharmacology	1		1
Electives ³	(2)			6
				38
SPRING SEMESTER				
NURM 141	Accelerated Nursing	6.5	19.5	13
SUMMER SEMESTER				
NURM 241	Accelerated Nursing Summer ⁴	6.8	20.6	11
FALL SEMESTER				
NURM 242	Nursing	6.5	19.5	11

- 1- These sciences must have been taken within the last five years to be transferable.
- 2- The CHE 113/114 sequence is recommended for students considering BSN/MSN study.
- 3- Two electives must be taken in the Humanities.
- 4- Taught in a 12-week summer semester.

MUHLENBERG REGIONAL MEDICAL CENTER HAROLD B. AND DOROTHY A. SNYDER SCHOOLS

SCHOOL OF NURSING cont'd

RECOMMENDED SEQUENCE

LPN TO RN TRACK

COURSES AT UNION COUNTY COLLEGE (IF NECESSARY)

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
BIO 105	Anatomy and Physiology I ¹	3	3	4
BIO 106	Anatomy and Physiology II ¹	3	3	4
CHE105	Chemistry-Health Sciences ²			4
PSY 101	General Psychology			3
ENG 101	English Composition I	3	1	3
				18
SUMMER SESSION I				
NURM 120	LPN Transition Course	7.5	7.5	4
ENG 102	English Composition II	3	1	3
				7
SUMMER SESSION II				
SOC 101	Principles of Sociology	3		3
PSY 205	Child Psychology	3		3
				6
SEMESTER III				
NURM 122	Nursing II	4	12	8
BIO 108	Microbiology ¹	3	3	4
				12
SEMESTER IV				
NURM 221	Nursing III	4.5	13.5	9
Elective ³		3		3
				12
SEMESTER V				
NURM 222	Nursing IV	4.5	13.5	9
Elective ³		3		3
				12

Muhlenberg has an articulation with Union County College's LPN Program. Therefore, Union County College's LPNs who graduated after September, 1997, may complete the nursing portion of the RN program with a three (3) week Transition course plus two (2) semesters.

- 1 - These sciences must have been taken within the last five years to be transferable.
- 2 - The CHE 113/114 sequence is recommended for students considering BSN/MSN study.
- 3 - Two electives must be taken in the Humanities
- 4 - Taught in a 12-week summer semester

Advanced standing awarded for:

- NURM 100 - 1 credit
- NURM 119 - 3 credits
- NURM 121 (upon passing NURM 120) - 8 credits.

Advanced standing may be awarded for NURM122.

Registration for summer session (general education courses only) is done at Muhlenberg.



TRINITAS SCHOOL OF NURSING

ASSOCIATE IN SCIENCE DEGREE*

Students interested in receiving additional information about or an application to the program should contact Union County College. The Cranford campus number is (908) 709-7518 and the Elizabeth campus number is (908) 965-6050.

The specific curriculum objectives of this program are that the graduate will:

- demonstrate the role of the graduate nurse within a variety of health care settings;
- act as a client advocate by recognizing the uniqueness and dignity of individuals, families, and groups by providing a caring environment;
- utilize the nursing process to provide nursing care to individuals, families, and groups of diverse cultural backgrounds;
- engage in the continuous process of learning and development within a dynamic society;
- demonstrate accountability by adhering to ethical guidelines and legal standards in the practice of nursing;
- teach practices related to the prevention of illness and the promotion and restoration of health to individuals, families, and groups;
- collaborate with health team members to facilitate the highest level of health for individuals, families, and groups;
- utilize appropriate interpersonal skills when interacting with individuals, families, and groups;
- employ critical thinking in nursing practice.

AFTER UCC

Graduates of these programs can either work in the Nursing/Health professions or continue their educational pursuits.

RECOMMENDED SEQUENCE

DAY AND EVENING DIVISIONS

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
BIO 105	Anatomy and Physiology I	3	3	4
CHE 105*	Chemistry-Health Sciences	3	3	4
ENG 101	English Composition I	3	1	3
NURE 130	Nursing Trends and Concepts	4		4
				15
SEMESTER II				
BIO 106	Anatomy and Physiology II	3	3	4
PSY 101	General Psychology	3		3
NURE 131	Nursing I	4	12	8
				15
SEMESTER III				
BIO 108	Microbiology	3	3	4
PSY 205	Child Psychology	3		3
NURE 132	Nursing II	4	12	8
				15
SEMESTER IV				
ENG 102	English Composition II	3	1	3
SOC 101	Principles of Sociology	3		3
NURE 231	Nursing III	4	12	8
				14
SEMESTER V				
NURE 232	Nursing IV	5	15	10
Elective	Humanities(2)			6
				16

*The CHE 113/114 sequence is recommended for students considering BSN/MSN study. CHE 114 must be taken to fulfill the Chemistry component of CHE 113 if selected in the curriculum.

ADMISSION REQUIREMENTS TO THE SCHOOL OF NURSING ARE:

- Graduation from an accredited high school or Graduate Equivalency Diploma (GED);
- Satisfactory completion of ESL courses (if applicable).

* A diversity course (see page 110) is required for transfer to a 4-year institution

TRINITAS SCHOOL OF NURSING

ASSOCIATE IN SCIENCE DEGREE cont'd

RN COMPLETION PROGRAM FOR LPNs

PREREQUISITES

COURSE#	COURSE	Cr.
BIO 105	Anatomy & Physiology I	4
BIO 106	Anatomy & Physiology II	4
BIO 108	Microbiology	4
CHE 105	Chemistry for the Health Sciences or	
CHE 113	Inorganic Chemistry* and	4
CHE 114	Organic Chemistry	4
ENG 101	English Composition I	3
ENG 102	English Composition II	3
PSY 101	General Psychology	3
PSY 205	Child Psychology	3
SOC 101	Principles of Sociology	3
Electives	Humanities	6
	L.P.N. Licensed Practical Nurse Curriculum	20

ALL PREREQUISITES AND BUY-BACK CREDITS MUST BE COMPLETED PRIOR TO ENTERING NURE 250.

Passing Grades in the Cooperative Program:
 "C" in BIO 105, BIO 106, BIO 108, CHE 105 or CHE 113/114
 "C+" in all nursing courses

COURSE#	COURSE	LEC.	LAB	Cr.
SEMESTER I				
NURE 250	Nursing Care of the Client with a Medical/Surgical Health Deviation	3	9	6
SEMESTER II				
NURE 260/270	Nursing Care of Children and Their Families and Nursing Care of Women and the Childbearing Family	3	9	6
SEMESTER III				
NURE 280/290	Nursing Care of the Client with Mental Illness and Nursing Care of the Client with a Complex Multi-System and Medical-Surgical Health Deviation	3	9	6

* The CHE 113/114 sequence is recommended for students considering BSN/MSN study. CHE 114 must be taken to fulfill the chemistry component if CHE 113 is selected in the curriculum.

ADMISSION REQUIREMENTS: APPLICANTS TO THE RN COMPLETION PROGRAM WILL HAVE EVIDENCE OF:

- Graduation from an approved School of Practical Nursing;
 - Current LPN license;
- Completion of College Placement Test/course or waiver requirement;
 - GPA of 2.3 or better;
- Completion of all prerequisites and buy-back credits;
- One year employment as an LPN in a health care setting.



PARALEGAL STUDIES

ASSOCIATE IN APPLIED SCIENCE DEGREE

The mission of the Paralegal Studies Program is to recognize the vital role that paralegals play in the practice of law, both in the public and private sectors. The program will prepare students to enter the profession with the requisite skills or to transfer to a four-year institution to complete their baccalaureate degree. This Program is also suitable for those students who have earned their B.A. or who are already employed in the legal field.

The specific objectives of this program are that the graduate must be able to:

- examine the roles played by paralegals in the American legal system, particularly the ethical regulations concerning the practice of law;
- demonstrate critical thinking and problem solving skills;
- effectively communicate with others in a diverse society, maintaining a professional manner and client confidence;
- conduct legal research and other fact-gathering activities including client interviews and investigations using current and emerging technologies;
- demonstrate the ability to write clearly and accurately according to the standards of the legal profession;
- recognize the similarities and differences among the general areas of law;
- discuss the basic tenets of the diverse subjects of law and define the legal terms related to these areas;
- analyze and evaluate the relevant legal issues presented in various fact patterns;



- prepare various forms, pleadings, motions, discovery requests, and other documents in preparation for litigation and post-trial practice; and
- incorporate computer technology into law office management and data compilation systems, including client files and library maintenance.

WHERE YOU CAN GO FROM HERE

This program is designed to prepare students to become professional paralegals and to prepare them for the Certified Legal Assistants Examination.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
LGL 101	Intro to Paralegalism	3		3
LGL 110	Legal Research	3		3
ENG 101	English Composition I	3	1	3
CIS 100	Intro to Computer Applications	2	2	3
MAT 127	Elementary Statistics	4		4
				15

SECOND SEMESTER				
LGL 120	Contract Law	3		3
LGL 111	Legal Writing	3		3
ENG 102	English Composition II	3	1	3
LGL 140	Property Law	3		3
Elective	Social Science	3		3
Elective	Laboratory Science	4		4
				19

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
LGL 210	Tort Law	3		3
ENG 128	Dynamics of Communication	3		3
LGL 220	Litigation I	3		3
ECO 105	Basic Economics	3		3
LGL	Elective	3		3
				15

SECOND SEMESTER				
GOV 201	American Government & Politics or			
GOV 202	American National Government	3		3
Elective	Humanities	3		3
LGL 240	Business Organizations	3		3
LGL 221	Litigation II	3		3
LGL 215	Law Office Management	3	2	3
LGL	Elective	3		3
				18

Legal Electives:

- LGL 230 Family Law
- LGL 231 Criminal Law
- LGL 235 Wills, Trusts, and Estates

All developmental requirements must be met before beginning core courses. MAT 119 may be required to transfer to certain four-year programs. Students interested in transfer should seek academic advising. The Science elective must have a laboratory component per the General Education Requirements. The ABA prohibits this science course to be from another occupational program like the health occupations courses or police science/criminal justice.

PHOTOGRAPHY/FINE ARTS

(OPTION OFFERED THROUGH LIBERAL ARTS)
ASSOCIATE IN ARTS DEGREE*



The Fine Arts Option in Photography is a Liberal Arts transfer-oriented curriculum that provides students, through a core of visual arts/photography-related courses, a theoretical and practical understanding of the artistic and commercial areas of photography. Utilizing skills and techniques learned through a combined lecture/studio/darkroom experience, students are taught the basics of black and white, color photography, and the history of photography which are applicable to the commercial and artistic environments.

A large component of this program focuses on developing studio photography skills, including darkroom techniques, standard and large format camera usage, studio lighting, theoretical and historical applications, and comprehensive portfolio development.

The specific objectives of this program are that the graduate must be able to demonstrate:

- a practical and theoretical understanding of general picture-taking skills including f/stop, shutter speed and depth of field control;
- the ability to process black and white negatives and color and black and white prints;

- a knowledge and familiarity of all darkroom and studio equipment including strobes, large format cameras, and light meters;
- an awareness of historical and contemporary issues of photographic practice and an ability to generate critical thinking and effective communication about art;
- a portfolio of work that demonstrates competency in photography and provides the necessary visual support material needed for transfer acceptance into a four-year program or for an entry-level vocational position.

AFTER UCC

Graduates can transfer to a four-year college or university and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

* A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
ENG 101	English Composition I	3	1	3
HIS 101	Intro to Western Civilization I	3		3
	Modern Language	3		3
MAT 127	Elementary Statistics or			
MAT 143	Elementary Mathematical Analysis I	4		4
FIA 108	Art Appreciation	3		3
				16

SECOND SEMESTER				
ENG 102	English Composition II	3	1	3
HIS 102	Intro to Western Civilization II	3		3
	Modern Language	3		3
	Laboratory Science	3	3	4
FIA 221	Black & White Photography I	3		3
				16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
ENG	200-Level Literature course	3		3
PSY 101	General Psychology	3		3
MAT 144	Elementary Mathematical Analysis II or Laboratory Science			4
FIA 222	Black & White Photo II	3		3
FIA 224	Digital Imaging for Art and Photography	3		3
FIA	Diversity Course*	3		3
				19

SECOND SEMESTER				
ENG 128	Dynamics of Communication or Public Speaking	3		3
PSY 102	Psychology of Personality	3		3
FIA 225	Advanced Digital Imaging for Art & Photography	3		3
BUS 203	Principles of Advertising	3		3
FIA 223	Color Photography	3		3
GOV 202	American National Government or			
PHI 205	Intro to Philosophy	3		3
				18

* Students can take the FIA 105 Music Appreciation, FIA 111 History of Art I, FIA 112 History of Art II, or FIA 117 Music in the 20th Century to fulfill the Fine Arts Diversity course requirement.

PHYSICAL SCIENCE

ASSOCIATE IN ARTS DEGREE[‡]

The Physical Science program is concentrated in the areas of physics, chemistry, and/or geology, with the necessary foundation in mathematics. Languages and liberal arts electives round out the program.

Applicants for the Physical Science program must present two years of algebra and one year of geometry, trigonometry, chemistry, and physics and two years of a foreign language, as high school entrance credits. Students deficient in any of these subjects must take the appropriate preparatory courses. All candidates are required to take a mathematics placement test.

The specific objectives of this program are that the graduate must be able to demonstrate:

- critical thinking and problem solving skills in chemistry and physics, calculus, and differential equations;
- the ability to apply knowledge of computer science, including computer programming skills using an appropriate computer language (e.g., C++);
- the ability to use appropriate computer software applications, including word processing, spreadsheets, and hand-held graphing calculators, in the study of science and mathematics;



- the ability to perform laboratory experiments and measurements, and to graph and analyze experimental data;
- the ability to work as a team member;
- the ability to write and communicate effectively.

AFTER UCC

Graduates can transfer to a four-year college or university and major in such fields as Physical Science, Chemistry, Mathematics or Physics and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

[‡] A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER**				
CHE 111	General Chemistry I	3	3	4
ENG 101	English Composition I	3	1	3
	Modern Language* (111 or 121)			3
MAT 171	Unified Calculus I	4		4
				14

SECOND SEMESTER**

CHE 112	General Chemistry II	3	3	4
ENG 102	English Composition II	3	1	3
	Modern Language* (112 or 122)	3		3
MAT 172	Unified Calculus II	4		4
				14

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
CHE 201	Quantitative Analysis or	3	6	5
CHE 211	Organic Chemistry or	3	6	5
GEY 101	Physical Geology	3	3	4
CSC 101	Computer Algorithms	2	3	3
MAT 271	Unified Calculus III	4		4
PHY 101	General Physics I	3		3
PHYL 101	General Physics I Laboratory		3	1
Elective	Social Science			3
				18-19

SECOND SEMESTER

CHE 202	Instrumental Analysis or	2	6	4
CHE 212	Organic Chemistry II or	3	6	5
GEY 102	Historical Geology	3	3	4
MAT 272	Differential Equations	4		4
PHY 102	General Physics II	3		3
PHYL 102	General Physics II Laboratory		3	1
Electives	General			6
				18-19

*French or German recommended

The following general electives are suggested for students in the Physical Science program:

AST 101, 102	ENG 200-Level Literature
ECO 201, 202	GEY 101, 102
EGG 201, 202	MAT 127, 265
ENG 128, 129,	PSY 101, 102

**Physics majors should add PHY 111, PHYL 111 to their freshman year and substitute PHY 201, PHYL 201 for PHY 101, PHYL 101 and PHY 102, PHYL 102 in their sophomore year.

PHYSICAL THERAPIST ASSISTANT

ASSOCIATE IN APPLIED SCIENCE DEGREE

This is a 68 credit Associate in Applied Science degree program accredited by the Commission on Accreditation in Physical Therapy Education. It is designed to prepare individuals for employment in physical therapy settings under the supervision of a Physical Therapist. Graduates are eligible to take the State licensure examination necessary for practice as a licensed Physical Therapist Assistant.

Course work prepares the student to perform basic physical therapy procedures and should not be considered as a direct vehicle of study towards an entry-level physical therapy academic program. The program demands that students attend classes full-time during the day. Hours for clinical practice may vary and travel to the clinical setting is the responsibility of the student.

See paragraphs "Qualifications for Admission to Degree Programs" and "Admission Requirements for Health Technologies" for desired high school background and admissions information (see page 214).

The specific objectives of this program are that the graduate must be able to demonstrate:

- the ability to demonstrate critical thinking and problem solving skills in the health care setting using appropriate measurement and assessment techniques using the knowledge of indications and contraindications of the disease process;
- the ability to appropriately observe and report important patient responses by recognizing abnormal and normal responses to treatment and by recognizing the need for treatment modifications in response to observations;
- the ability to understand the rights and responsibilities of returning the individual with a disability to a functioning member within the community using knowledge of the federal regulations regarding Americans with disabilities;

- basic competency in carrying out physical therapy interventions by obtaining necessary medical information, organizing the treatment program, demonstrating knowledge of indications and contraindications in patient care, under the supervision of a Physical Therapist;
- the ability to communicate effectively with the supervising therapist, appropriate medical personnel, families and patients, using appropriate oral and written medical terminology and recording this information in the patient record;
- the awareness of the current social, political, and economic aspects of health care by demonstrating appropriate assessment of the treatment plan's effectiveness and timely recommendation for reevaluation of the patient by the physical therapist.

AFTER UCC

Graduates are eligible to take the State Licensure Examination necessary for practice as a Licensed Physical Therapist Assistant.

There is a limit to the number of seats available in the clinical phase of the PTA program. It is therefore imperative that each student contacts the Program Coordinator at (908)412-3582. All students must complete a PTA Program Entrance Form prior to starting the clinical phase of the program. All students must complete 25 hours of volunteer work or work-related experience and must obtain a reference on the PTA Program Reference Form. Both of these forms are available in August from the Program Coordinator or the Health Technology Department Secretary, and must be returned no later than October 30th.

Please note that it is always beneficial for students to complete additional non-clinical courses prior to the first semester of the clinical phase, thereby making the summer course load more manageable. Please call the Program Coordinator (908)412-3577 for counseling on course selection.

If necessary, the Program Coordinator and the PTA Program Admissions Committee will make the final determination for admission to the program based on the professional reference and a written essay or interview.

RECOMMENDED SEQUENCE

PRE CLINICAL PHASE

COURSE#	COURSE	LEC.	LAB	Cr.
PREREQUISITE COURSE WORK				
ENG 101	English Composition I*	3	1	3
BIO105	Anatomy and Physiology I*+	3	3	4
MAT 119	Algebra*	3		3
PSY 101	General Psychology*	3		3
HUG101	Multidisciplinary Perspectives on Aging*	3		3
				16

CLINICAL PHASE**

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER (SPRING)				
PTA 115	Functional Anatomy	3	3	4
PTA 130	PT Procedures I	3	13	7
PTA 251	Independent Living	2		2
				13
SUMMER SESSION I				
ENG 102	English Composition II**	3	1	3
PTA 140	PT Procedures II	2	3	3
				6

SUMMER SESSION II				
BIO 106	Anatomy and Physiology II	3	3	4
SECOND SEMESTER (FALL)				
PTA 217	Clinical Seminar & Practice I	3	16	7
PTA 220	PT Procedures III	4	6	6
PTA 221	PT Procedures IV	3	3	4
				17

THIRD SEMESTER (SPRING)				
PTA 223	Clinical Seminar II	3		3
PTA 224	Clinical Practice II	40		9
				12
Total Program Credits (including all prerequisite course work)				68

* Prerequisite (pre-clinical phase) course work must be passed with a grade of "C" or higher.

**English 102 may be completed during the winter session [before first semester (Spring)]. English 102 must be completed prior to beginning the second semester (Fall).

+ Note: Students will only be permitted to take BIO 105 or BIO 106 two times. If a student is not able to pass these courses with a "C" or better on the second attempt, they will not be eligible to register for the clinical phase of the program.

All course work in the clinical phase of the PTA program must be passed with a grade of "C+" or better.



PRACTICAL NURSING

DIPLOMA

The Practical Nursing Program at Union County College is a 4-semester, full-time program leading to a Diploma. Currently, the nursing courses are offered entirely during the day, however, college courses may be taken during the evening or weekend hours, as available.

The curriculum incorporates theoretical knowledge from the biological and social sciences into the nursing framework. Students are able to apply information acquired in the classroom and skills laboratory to clinical client care experiences.

This new program has received provisional accreditation from the New Jersey Board of Nursing. Graduates of this program are eligible to take the NCLEX-PN examination for Practical Nurse licensure. Licensed Practical Nurses provide client care in a variety of health care agencies under the direction of a Registered Nurse and/or physician or dentist.



The specific objectives of this program are that the graduate of the Practical Nursing Program will:

- provide holistic care to clients from diverse multi-cultural backgrounds, experiencing a variety of self-care needs, within the context of the nursing process;
- collaborate with other members of the health care team;
- demonstrate accountability by practicing nursing within a legal and ethical framework;
- use effective communication skills when interacting with clients, families, and other members of the health care team;
- assume accountability for personal and professional growth;
- apply critical thinking in interactions with clients, families, and other members of the health care team;
- incorporate contemporary knowledge and tools from nursing and the biological and social sciences into the care provided to clients at different developmental levels throughout the life span.

AFTER UCC

Graduates of this program are eligible to take the NCLEX-PN examination for Practical Nurse Licensure.

RECOMMENDED SEQUENCE

COURSE#	COURSE	THEORY	LAB/CLINICAL	CREDIT
SEMESTER I				
ENG 101	English Composition I	3	1	3
BIO 102	Human Biology	3	3	4
PSY 101	General Psychology	3		3
PNU 110	Nursing Concepts	4		4
				14
SEMESTER II				
PNU 120	Nursing Fundamentals	4	2	6
PNU 130	Adult Health I	4	2	6
				12
SEMESTER III				
PNU 140	Maternal/Child Health	2	1	3
PNU 150	Pediatric Health	2	1	3
PNU 160	Mental Health	2	1	3
PSY 205	Child Psychology	3		3
				12
SEMESTER IV				
PNU 170	Adult Health II (12 weeks)	6	3	9
PNU 180	Role Transition/Review (2 weeks)	2		2
Elective	Humanities, Diversity or	3		3
Elective	Science *	3	3	4
				14-15
General education credits		16-17		
Nursing credits		36		
TOTAL				52-53

* Recommended science courses:
BIO 105/106, BIO 108, CHE 105 or CHE 113

PSYCHOLOGY

(OPTION OFFERED THROUGH LIBERAL ARTS) ASSOCIATE IN ARTS DEGREE*

This program is for those students who wish to transfer to a four-year institution and major in Psychology.

See paragraph on "Qualifications for Admission to Degree Programs" for desired high school background (see page 214).

The specific objectives of this program are that the graduate must be able to demonstrate:

- critical thinking, problem solving skills, and effective communication skills;
- an awareness of and concern for the ethical implications of institutional policies and individual practices;
- an awareness of his/her rights and responsibilities as a citizen of a world community;
- the ability to communicate with others in a diverse society;
- an awareness of the diverse factors that shape the world in order to keep pace with the changing society;
- the ability to learn independently and to direct his/her own learning;
- the knowledge of the history of psychology;
- the ability to apply critical thinking and problem solving skills in dealing with others;
- an understanding of the scientific method and how it is used in psychology and other social sciences;
- the ability to learn independently.

AFTER UCC

Graduates can transfer to a four-year degree program, majoring in the Social Sciences or Liberal Arts, or other areas of interest and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

* A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
ENG 101	English Composition I	3	1	3
HIS 101	Intro to Western Civilization I	3		3
	Laboratory Science* or			
MAT	Mathematics+			3-4
PSY 101	General Psychology	3		3
	Modern Language	3		3
				15-16

SECOND SEMESTER

ENG 102	English Composition II	3	1	3
HIS 102	Intro to Western Civilization II	3		3
	Laboratory Science* or			
MAT	Mathematics+	3		3-4
PSY 102	Psychology of Personality	3		3
	Modern Language	3		3
	Elective Humanities			3
				18-19

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
THIRD SEMESTER				
ENG 128	Dynamics of Communication or			
ENG 129	Public Speaking	3		3
SOC 101	Principles of Sociology	3		3
CIS 100	Intro to Computer Applications	2	2	3
PSY	200-Level Course	3		3
PHI 205	Intro to Philosophy	3		3
				15

FOURTH SEMESTER

SOC 206	Minorities in American Life	3		3
PSY	Elective	3		3
	Elective Science (may be laboratory or non-laboratory) or			
MAT	Mathematics	3-4		3-4
Electives	Humanities/Social Science	6		6
				15-16

*A one year science sequence is recommended

+MAT 117 or higher. MAT 127 (Elementary Statistics) is recommended.

It is suggested that electives be chosen from the following list:

PSY 206, 207, 208, 211, 212	SOC 102, 206, 273
PHY 101, 102, 105	HIS 105, 106, 201, 202, 205, 209
FIA 111, 112	BIO 101, 102, 103, 104, 107, 109, 113
CHEM 101, 102, 106	GEY 101, 102
MAT 129, 171, 172	CRJ 205
AST 101, 102	ECO 201, 202
GOV 201, 202, 205	URS 101
Modern Languages (all)	HUG 101

PSYCHOSOCIAL REHABILITATION AND TREATMENT

ASSOCIATE IN SCIENCE DEGREE*

Psychosocial rehabilitation (PSR) is a comprehensive treatment strategy for meeting the needs of people with severe mental illnesses. PSR practitioners assist people in obtaining the skills, support and resources they will need to achieve success and satisfaction in their social, vocational, educational and independent living environments. The overall goals of this field are promotion of recovery, community integration, and improved quality of life for people coping with psychiatric disabilities. There are ample career opportunities for PSR practitioners in a variety of rehabilitation programs and community mental health settings. The knowledge and skills of the PSR practitioner qualify him/her to provide supportive counseling, case management services, and vocational rehabilitation interventions. The practitioner is also prepared to facilitate skills training groups as well as psycho-education and support groups.

UMDNJ-SHRP'S PROGRAM

The UMDNJ School of Health Related Professions had the first undergraduate degree-granting program in this field in New Jersey. It is one of the few model programs of this type throughout the nation. Students in this program will complete two clinical placements at sites such as UMDNJ-UBHC, Bridgeway, Collaborative Support Programs of NJ, Harbor House, Project Live, and others.

Degree Requirements:

Requirements for admission to the UCC general education phase of the program are: High School graduation or equivalent diploma (GED); English as a Second Language (ESL) placement test if required and completion of ESL courses if necessary; and Completion of any necessary remedial courses as determined by the New Jersey Basic Skills Test.

To qualify for admission to the professional phase of the program offered by UMDNJ, students must complete 21 credits of their UCC general education requirements (including ENG 101, ENG 102) and UPR 101. A minimum GPA of 2.5 is also required.

In order to successfully complete this program, the student will be required to take the following courses. BE SURE TO CONFER WITH A UCC OR UMDNJ COUNSELOR WHEN PLANNING YOUR COURSE SCHEDULE.

General Education Requirements

ENG 101 English Composition I
 PSY 101 General Psychology
 CIS 100 Intro to Computer Applications
 MAT 119 Algebra
 SOC 101 Principles of Sociology
 BIO 102 Human Biology
 ENG 102 English Composition II
 PSY 207 Social Psychology
 PHI 205 Intro to Philosophy
 ENG 128 or ENG 129 Dynamics of Communication or Public Speaking

UMDNJ Requirements

UPR 101 Intro to Psychosocial Rehabilitation - taken prior to entering professional phase

WHERE YOU CAN GO FROM HERE

Graduates may transfer to Kean University or Felician College, which offer a Joint Bachelor's Degree Program in Psychology & Psychiatric Rehabilitation with the UMDNJ School of Health Related Professions.

* A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

COURSE#	COURSE	LEC.	LAB	CR.
SEMESTER 1				
PSRT 1102	Communication Techniques-Interviewing & Counseling*	2	2	3
PSRT 1103	Intro to Group Dynamics*	2	2	3
PSRT 1204	Clinical Principles in Psychosocial Rehabilitation*	2		3
SEMESTER 2				
PSRT 1019	Clinical Practicum in Psychosocial Rehabilitation I*	3		6
PSRT 2121	Community Resource Management*	3		3
SEMESTER 3				
PSRT 2019	Clinical Practicum in Psychosocial Rehabilitation II*	3		6
PSRT 2231	Emerging Topics in Psychosocial Rehabilitation*	3		3

* Students register through UMDNJ for PSRT courses and pay UMDNJ Undergraduate tuition rate and fees

A total of 61 credits are required. The 31 credits of general education courses are provided by Union County College or may be transferred from other schools. The UMDNJ School of Health Related Professions provides the 30 credits of Psychosocial Rehabilitation and Treatment (PSRT) courses. Except for UPR 101 (PSRT 1101), students register at UMDNJ for the PSRT courses and pay the UMDNJ undergraduate tuition rate and fees. A grade of "C" or better in all major courses is required. Full and part-time courses of study are available, including day and evening classes. Classes are taken during fall and spring sessions.

Effective September 2004 all professional courses will be offered through UMDNJ at the University tuition rate.

For further information contact the Scotch Plains campus at 908-889-2483.



PUBLIC ADMINISTRATION

(OPTION OFFERED THROUGH BUSINESS)
ASSOCIATE IN ARTS DEGREE*



This program offers a strong foundation for students wishing to major in either public and/or business administration. The program includes courses in statistics, computer programming, and management. The courses are designed to develop analytical and quantitative skills, as well as familiarity with the basic characteristics of government and business organizations.

See paragraph "Qualifications for Admission to Degree Program" for desired high school background (see page 214).

The specific objectives of this program are that the graduate must be able to demonstrate:

- knowledge of the principles and practices of management and organization in American Business;
- knowledge of the principles and dynamics of American public administration;
- knowledge of the principles of microeconomics and macroeconomics;
- the ability to perform statistical procedures common to American business;
- critical thinking, problem solving skills, and effective communication skills;
- an awareness of and concern for the ethical implications of institutional policies and individual practices;
- an awareness of the diverse factors that shape the world in order to keep pace with the changing society;
- the ability to use technology for learning and research;
- the ability to learn independently and to direct one's own learning.

AFTER UCC

Graduates can transfer to a four-year college or university to further their education and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

* A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
ACC 103	Accounting I	4		4
ENG 101	English Composition I	3	1	3
GOV 201	American Government and Politics	3		3
MAT	Mathematics*	3		3-4
SOC 101	Principles of Sociology	3		3

16-17

SECOND SEMESTER

ACC 104	Accounting II	4		4
ENG 102	English Composition II	3	1	3
GOV 202	American National Government	3		3
MAT 146	Brief Calculus with Applications or			
MAT 246	Business Statistical Analysis	4		4
PSY 101	General Psychology or			
SOC 206	Minorities in American Life	3		3

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SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
ACC 203	Intermediate Accounting I or Laboratory Science +			4
BUS 105	Organization and Management	3		3
CIS 101	Intro to Information Systems**	2	2	3
ECO 201	Principles of Economics I	3		3
Elective	Humanities	3		3

16

SECOND SEMESTER

ACC 204	Intermediate Accounting II or Laboratory Science +			4
ECO 202	Principles of Economics II or			
ENG 128	The Dynamics of Communication	3		3
GOV 204	Public Administration	3		3
Electives	General			6

16

For career students who do not intend to transfer to a four-year college, ACC 203-204 is recommended.

+A one-year laboratory science sequence is recommended depending upon where you transfer. Students interested in Urban Studies are urged to examine the Urban Studies Option of the Liberal Arts program. Electives are suggested in the following areas:

Biology	Business
History	Computer Science
Literature	Fine Arts
Psychology	Modern Language
Sociology	Government
Urban Studies	Chemistry

* See advisor to choose an appropriate mathematics course.

**Prerequisite for CIS 101 is CIS 100.



PUBLIC RELATIONS

(OPTION OFFERED THROUGH COMMUNICATIONS)
ASSOCIATE IN ARTS DEGREE[‡]

This program is designed for transfer to a bachelor's degree-granting institution. Course work includes theory and practice of public relations. Internships in professional organizations are available. Students are required to consult with an advisor regarding appropriate option and course selection for their needs and interests.

The specific objectives of this program are that the graduate must be able to demonstrate:

- the ability to communicate ideas verbally and in writing with a level of sophistication and fluency appropriate to college-level discourse;
- a recognition of the necessity of keeping abreast of current cultural, social and political issues and events as a cornerstone of citizenship in a democratic society;

- a level of comfort and proficiency with standard productivity software such as word processors, presentation managers and web browsers, as well as an understanding of the ways in which these tools are applied in the communications field;
- an awareness that learning is a complex, life-long process and not an event, a phenomenon, not an outcome;
- a sensitivity to, and concern about, the ethical implications of institutional policies and individual practices.

AFTER UCC

Graduates can transfer to a bachelor's degree-granting institution and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

[‡] A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
COM 101	Mass Communications	3		3
ENG 101	English Composition I	3	1	3
HIS 101	Intro to Western Civilization I	3		3
Laboratory Science or MAT	Mathematics*			3-4
COM 100	Communications Technologies	3		3
				15-16

SECOND SEMESTER				
COM 108	Principles and Practices of Public Relations	3		3
ENG 102	English Composition II	3	1	3
Laboratory Science or MAT	Mathematics*			3-4
ENG 128	The Dynamics of Communication or			
ENG 129	Public Speaking	3		3
HIS 102	Intro to Western Civilization II	3		3
				15-16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
COM 102	Reporting & News Writing or			
COM 107	Publication Editing and Design or			
COM 111	Mass Communication Ethics	3		3
ENG	200-Level Modern Language	3		3
GOV 201	American Govt and Politics	3		3
PSY 101	General Psychology	3		3
BUS 101	Intro to Contemporary Business	3		3
				18

SECOND SEMESTER				
COM 207	Advanced Publication Editing and Design or			
COM 201	Issues in Mass Media or			
COM 214	Communications Practicum I	3		3
ENG	200-Level Modern Language	3		3
GOV 202	American National Govt	3		3
Elective	Social Science or Business	3		3
				15

*Mathematics requirement must be MAT 117 or higher

RADIATION THERAPY

DIPLOMA

By virtue of an agreement between Union County College and the **Muhlenberg Regional Medical Center (MRMC) Harold B. and Dorothy A. Snyder Schools**, Plainfield, NJ, Union County College confers 24 college credits upon graduates of the Hospital sponsored school who have fulfilled the requirements for the credits specified by Union County College.

The program will further expand to admit those students who would like to earn an Associate in Science degree from Union County College in addition to the certificate. Students admitted to this program will earn college credits in English, mathematics, biology, physics, social sciences and humanities electives in classes and laboratories conducted at Union County College. Radiation Therapy courses are the primary responsibility of the program.

The program holds accreditation from the New Jersey Department of Environmental Protection, Radiologic Technology Board of Examiners and the Joint Review Committee on Education in Radiologic Technology.



Students are enrolled in the School of Radiation Therapy and are matriculated by Union County College. They are eligible to participate in all student activities at Union County College and have the same rights and privileges as all other college students.

Students interested in the program should contact **Muhlenberg Regional Medical Center Harold B. and Dorothy A. Snyder Schools** at (908) 668-2637 for additional information.

Specifically, the program objectives are that graduates must be able to demonstrate:

- an ability to deliver a planned course of radiation therapy;
- an ability to verify the mathematical accuracy of the prescription for radiotherapy;
- an ability to maintain daily record and document technical details of the radiotherapy treatment administered;
- an ability to observe the clinical progress of the patient undergoing radiation therapy and observe the first sign of any complication;
- an ability to provide patient care and comfort essential to radiation therapy procedures;
- within the scope of practice for a radiation therapist, detect equipment malfunctions; report same to the proper authority; and know the safe limits of equipment operations;
- an ability to understand the functions, limitations and utilization of radiotherapy equipment and treatment accessories and detect malfunctioning equipment;
- an ability to apply the rules and regulations for radiation safety, detect radiation hazards and other hazards to patient welfare within the scope of practice for the radiation therapist;
- an ability to simulate a prescribed course of radiation therapy treatment.

AFTER UCC

Graduates are eligible to sit for the American Registry of Radiologic Technologists and the New Jersey State Licensure Examinations.

RECOMMENDED SEQUENCE

PRE-CLINICAL

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
RADM 102	Radiation Math	2		2

MRMC CLINICAL

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER (SPRING)				
MRAT100	Basics of Radiation Therapy	3		3
MRAT104	Treatment Planning I	4		4
MRAT108	Principles & Practices of Radiation Therapy	4		4
MRAT112	Neoplastic Diseases I	4		4
CLPT 01	Clinical Internship I			
				15

SECOND SEMESTER (SUMMER I & II)

MRAT212	Neoplastic Diseases II	4		4
MRAT204	Treatment Planning II	4		4
CLPT 02	Clinical Internship II			
				8

THIRD SEMESTER (FALL)

MRAT135	Radiation Therapy Biology	2		2
MRNT102	Healthcare Today	2		2
MRAT210	Registry Review	1		1
CLPT 03	Clinical Internship III			
				5



RADIO

(OPTION OFFERED THROUGH COMMUNICATIONS)
ASSOCIATE IN ARTS DEGREE[‡]

This program is designed for transfer to a bachelor's degree-granting institution. Course work includes theory and practice of radio broadcasting. Internships in professional organizations are available. Students are required to consult with an advisor regarding appropriate option and course selection for their needs and interests.

The specific objectives of this program are that the graduate must be able to demonstrate:

- the ability to communicate ideas verbally and in writing with a level of sophistication and fluency appropriate to college-level discourse;
- a recognition of the necessity of keeping abreast of current cultural, social and political issues and events as a cornerstone of citizenship in a democratic society;
- a level of comfort and proficiency with standard productivity software such as word processors, presentation managers and web browsers, as well as an understanding of the ways in which these tools are applied in the communications field;
- an awareness that learning is a complex, life-long process and not an event, a phenomenon, not an outcome;
- facility with the tools and technology encountered in a professional recording studio or radio station;
- the ability to work effectively as a

member of a team.

AFTER UCC

Graduates can transfer to a bachelor's degree-granting institution and are



eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

[‡] A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
COM 101	Mass Communications	3		3
ENG 101	English Composition I	3	1	3
PSY 101	General Psychology	3		3
	Laboratory Science or			
MAT	Mathematics*			3-4
COM 100	Communications Technologies	3		3

15-16

SECOND SEMESTER				
COM 103	Intro to Radio Broadcasting	3		3
ENG 102	English Composition II	3	1	3
	Laboratory Science or			
MAT	Mathematics*			3-4
ENG 128	The Dynamics of Communication or			
ENG 129	Public Speaking	3		3
Elective	Social Science	3		3

15-16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
COM 102	Reporting & News Writing or			
COM 201	Issues in Mass Media or			
COM 214	Communications Practicum I	3		3
ENG	200-Level	3		3
	Modern Language or			
HIS 101	Intro to Western Civilization I	3		3
GOV 201	American Govt and Politics	3		3
Elective	Humanities	3		3
Elective	Social Science	3		3

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SECOND SEMESTER				
COM 111	Mass Communication Ethics or			
COM 106	Intro to Television: Production and Theory or			
COM 215	Communications Practicum II	3		3
ENG	200-Level			3
	Modern Language or			
HIS 102	Intro to Western Civilization II	3		3
GOV 202	American National Govt	3		3
Elective	Humanities	3		3

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*Mathematics requirement must be MAT 117 or higher

AMPLIFIED PROGRAM IN RADIOGRAPHY

ASSOCIATE IN SCIENCE DEGREE[‡]

Muhlenberg Regional Medical Center School of Radiography

By virtue of an agreement between Union County College and **Muhlenberg Regional Medical Center Harold B. and Dorothy A. Snyder Schools**, Plainfield, N.J., Union County College confers a degree of Associate in Science upon graduates of the Hospital sponsored school who have fulfilled the requirements for the degree specified by the College.

Students in the program earn college credits in English, mathematics, biology, physics, psychology, computer systems and humanities electives in classes and laboratories conducted at Union County College. Radiography courses are the primary responsibility of the program.

The Joint Review Committee on Education in Radiologic Technology and the New Jersey Department of Environmental Protection, Radiologic Technology Board of Examiners accredits Muhlenberg Regional Medical Center School of Radiography.

Students are enrolled in the School of Radiography and are matriculated by Union County College. They are eligible to participate in all student activities at Union County College and have the same rights and privileges as all other college students.

Students interested in the program should contact the Muhlenberg Regional Medical Center Harold B. and Dorothy A. Snyder Schools at (908) 668-2914 or (908) 668-2844 for additional information.

AFTER UCC

Graduates are eligible to sit for the American Registry of Radiologic Technologists and the New Jersey State Licensure Examinations.

RECOMMENDED SEQUENCE

[‡] A diversity course (see page 110) is required for transfer to a 4-year institution

COURSE#	COURSE	LEC.	LAB	Cr.	RECOMMENDED SEQUENCE
FIRST SEMESTER					COURSE# COURSE LEC. LAB Cr.
RNT 101	Medical Terminology	1		1	FOURTH SEMESTER (FALL)
BIO 105	Anatomy and Physiology I	3	3	4	CIS 100 Intro to Computer Applications 2 2 3
ENG 101	English Composition I	3	1	3	RAD 211 Principles of Radiographic Exposure II 3 3
MAT 119	Algebra	3		3	RAD 212 Radiation Physics 3 3
PSY 101	General Psychology	3		3	RAD 223 Radiologic Procedures IV Clinical 3 3
					14
SECOND SEMESTER (FALL ONLY)					12
RNT 103	Intro to Medical Imaging	3		4	FIFTH SEMESTER
BIO 106	Anatomy and Physiology II	3	3	4	RAD 213 Radiographic Equipment 3 3
ENG 102	English Composition II	3	1	3	RAD 201 Pathology 2 3
RAD 120	Radiographic Procedures I Clinical	3		3	RAD 224 Radiologic Procedures V 3 3
					Elective Humanities Clinical 3 3
					12
THIRD SEMESTER					12
PHY 125	Elements of Physics	4		4	
PSY 102	Psychology of Personality or				
SOC 101	Principles of Sociology	3		3	
RAD 110	Principles of Radiographic Exposure I	3		3	
RAD 121	Radiologic Procedures II	3		3	
RNT 102	Healthcare Today Clinical	2		2	
					15
SUMMER SESSION I*					
RAD 122	Radiologic Procedures III	2		2	
RAD 135	Radiobiology Clinical	2		2	
					4
SUMMER SESSION II*					
					Clinical

* RAD 102 may be taken at any time if a student is to continue in Nuclear Medicine Technology or Radiation Therapy. RAD 102 is a required course for students entering radiation therapy and for students entering nuclear medicine technology who do not achieve a 75% or better on the pre-test.

RNT courses will be first year core curriculum courses offered to radiography, nuclear medicine technology and radiation therapy students. Nuclear medicine technology students who are non-radiographers, are required to take all 3 courses. Radiation Therapy students are required to take RNT 102 only.

Each semester, except semester I, but including 4 summer sessions, have a clinical component that **MUST** be met for the successful completion of the program.

INTERSESSION: There is a one 40-hour clinical week between each fall and spring semester.



RESPIRATORY CARE

ASSOCIATE IN SCIENCE DEGREE*

The Respiratory Care program is a two-year course of study leading to the Associate in Science degree. The course work can also be done on a part-time basis. Clinical instruction and training is provided by the University of Medicine & Dentistry. Hours for clinical practice may vary and travel to the clinical setting is the responsibility of the student. Respiratory care practitioners are employed in the treatment, management, control, evaluation, and care of patients with deficiencies and abnormalities associated with the cardiopulmonary system.

See paragraph "Qualifications for Admission to Degree Programs" and "Admission Requirements for Health Technologies" for desired high school background (see page 214). Also note that a minimum GPA of 2.5 is required in first-year courses in order to continue to the Respiratory Care (second year) course work.

Effective September 2004 all professional courses will be offered through UMDNJ at the University tuition rate.

For further information contact the Scotch Plains campus at 908-889-2483.

The specific objectives of this program are that the graduate must be able to demonstrate:

- effective communication and interpersonal skills consistent with professional and employer expectations for a Respiratory Care Practitioner;
- the ability to comprehend, evaluate, and apply information relevant to their role as Respiratory Care Practitioners;
- the psychomotor skills that are consistent with professional and employer expectations for a Respiratory Care Practitioner;
- the ability to function as a member of the Health Care Delivery team, providing patient care in a multicultural society.



AFTER UCC

Successful completion of the program provides eligibility for licensing in New Jersey and allows graduates to sit for credentialing examinations administered by the National Board for Respiratory Care. The program is fully accredited by the Committee on Accreditation for Respiratory Care.

* A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
BIO 105	Anatomy and Physiology I	3	3	4
CHE 105	Chemistry-Health Sciences	3	3	4
ENG 101	English Composition I	3	1	3
PSY 101	General Psychology	3		3
MAT 119	Algebra	3		3
				17

SPRING SEMESTER

ENG 102	English Composition II	3	1	3
BIO 106	Anatomy and Physiology II	3	3	4
BIO 108	Microbiology	3	3	4
IDH 104	Culture, Diversity Healthcare & You	3		3
Elective	Humanities			3
				17

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
SUMMER SEMESTER				
URC 200	Core Concepts Respiratory Care	1		1
URC 210	Fundamentals Respiratory Care			4
URC 223	Appl. Cardiopulmonary Pathophysiology I	2		2
URC 218	Clinical Practice I			1
				8

FIRST SEMESTER

URC 225	Principles Vent Support			4
URC 224	Appl. Cardiopulmonary Pathophysiology II	2		2
URC 220	Cardiopulmonary Pharmacology			2
URC 233	Cardiopulmonary Evaluation			2
URC 228	Clinical Practice II			2
				12

SECOND SEMESTER

URC 235	Pediatric/Neonatal Respiratory Care			2
URC 234	Patient Management Critical Care			3
URC 237	Long-Term, Home & Rehab. Care			2
URC 238	Clinical Practice III			3
				10

Effective Fall 2004, students register for the professional phase courses at UMDNJ and pay the UMDNJ undergraduate tuition rate and fees.

RESTAURANT MANAGEMENT

ASSOCIATE IN SCIENCE DEGREE[‡]

This degree program is offered jointly by Union County College (UCC) and Fairleigh Dickinson University (FDU). FDU teaches the professional courses, while UCC teaches the general education and related courses. For courses taught by UCC, UCC tuition and fee rates apply. For courses taught by FDU, FDU tuition and fee rates apply.



The specific objectives of this program are that the graduate must be able to demonstrate:

- a knowledge of the practice of hospitality management;
- a knowledge of management theory and practice;
- the ability to apply problem solving skills to situations involved in restaurant management;
- effective communication skills in business communications, both oral and written;
- a knowledge of technology related to restaurant management, including computer technology;
- the ability to direct his/her own learning and to learn independently.

AFTER UCC

Graduates of this program may either directly enter the workforce as unit managers, assistant managers, shift managers, kitchen managers, and food and beverage managers or transfer to a four-year program in Hospitality Management at Fairleigh Dickinson University.

[‡] A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

COURSE#	COURSE	LEC.	LAB	CR.
SEMESTER 1				
ACC 103	Accounting I	4		4
ENG 101	English Composition I	3	1	3
HIS 101	Intro to Western Civilization I	3		3
MAT	Mathematics	3		3-4
PSY 101	General Psychology	3		3
FHR 101	Career Orientation*	1		1
				17-18
SEMESTER 2				
ACC 104	Accounting II	4		4
BUS 101	Intro to Contemporary Business	3		3
ENG 102	English Composition II	3	1	3
HIS 102	Intro to Western Civilization II	3		3
FMG100	Food & Beverage Management*	3		3
FHR 102	Prof. Skill Dev/Work Experience*	1		1
				17
SEMESTER 3				
CIS 100	Intro to Computer Applications	2	2	3
ECO 201	Principles of Economics I	3		3
ENG 122	Intro to Technical & Business Writing	3	1	3
GOV 105	Intro to Contemporary Govt & Politics or			
GOV	200-Level course	3		3
FMG101	Food Prod. Systems & Equip/Food Service Systems*	3		3
FHR 103	Mgmt Values and Professional Standards*	1		1
				16
SEMESTER 4				
ECO 202	Principles of Economics II	3		3
MAT 246	Business Statistical Analysis	3		4
CHE106	Consumer & Env Chemistry** or			
BIO 103	Biology of People and the Environment	3		4
Elective	Humanities	3		3
FMG102	Quantity Food Production Operations*	3		3
FHR 104	Hospitality Mgmt & Law/Work Exp*	1		1
				18

*FDU courses

** CHE 101 or CHE 102 may be substituted



TELEVISION

(OPTION OFFERED THROUGH COMMUNICATIONS)
ASSOCIATE IN ARTS DEGREE[‡]

This program is designed for transfer to a bachelor's degree granting institution. Course work includes the theory and practice of television production and video editing. Internships in professional organizations are available. Students are required to consult with an advisor regarding appropriate option and course selection for their needs and interests.

The specific objectives of this program are that the graduate must be able to demonstrate:

- the ability to communicate ideas verbally and in writing with a level of sophistication and fluency appropriate to college-level discourse;
- a recognition of the necessity of keeping abreast of current cultural, social and political issues and events as a cornerstone of citizenship in a democratic society;
- a level of comfort and proficiency with standard productivity software such as word processors, presentation managers and web browsers, as well as an understanding of the ways in which these tools are applied in the communications field;
- an awareness that learning is a complex, life-long process and not an event, a phenomenon, not an outcome;
- facility with the tools and technology encountered in a professional television studio or video production facility;
- the ability to work effectively as a member of a team.



AFTER UCC

Graduates may transfer to four-year colleges or universities in a similar degree program or other areas of interest and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

[‡] A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
COM 101	Mass Communications	3		3
ENG 101	English Composition I	3	1	3
PSY 101	General Psychology	3		3
Laboratory Science or MAT	Mathematics*			3-4
COM 100	Communications Technologies	3		3

15-16

SECOND SEMESTER

COM 106	Intro to Television: Production and Theory	3		3
ENG 102	English Composition II	3	1	3
Laboratory Science or MAT	Mathematics*			3-4
ENG 128	The Dynamics of Communication or			
ENG 129	Public Speaking	3		3
Elective	Social Science	3		3

15-16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
COM 206	Television Field Production	3		3
ENG	200-Level Modern Language or	3		3
HIS 101	Intro to Western Civilization I	3		3
GOV 201	American Govt and Politics	3		3
Elective	Humanities	3		3
Elective	Social Science	3		3

18

SECOND SEMESTER

COM 216	Digital Video and Multi-media Imaging	3		3
ENG	200-Level Modern Language or	3		3
HIS 102	Intro to Western Civilization II	3		3
GOV 202	American National Govt	3		3
Elective	Humanities	3		3

15

* Mathematics requirement must be MAT 117 or higher

URBAN STUDIES

(OPTION OFFERED THROUGH LIBERAL ARTS)
ASSOCIATE IN ARTS DEGREE[‡]

This program is designed to enable students in the Liberal Arts area to concentrate on the history, problems, and issues of urban and suburban communities in order to understand more fully the unique challenges which cities present and to lay a foundation for future study and possible employment in such fields as urban administration and social work. Students may concentrate in sociology or government or choose a combination of courses from each of these areas.

See paragraph "Qualifications for Admission to Degree Programs" for desired high school background (see page 214).

The specific objectives of this program are that the graduate must be able to demonstrate:

- an ability to think critically about issues related to the development of urban America;
- his/her successful defense of positions taken on urban issues;
- an ability to analyze material dealing with relevant urban problems;
- an understanding of the significant differences between urban and suburban living;
- the knowledge to exercise the rights and responsibilities of a citizen;
- communication skills which will allow him/her to effectively deal with members of other cultures;
- an awareness of the various forces that help shape the urban world;
- an understanding of the ethical implications of various urban policies.

AFTER UCC

Graduates may transfer to a four-year college or university and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

[‡] A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
ENG 101	English Composition I	3	1	3
GOV 201	American Government and Politics	3		3
Laboratory Science+ or MAT	Mathematics*+			3-4
SOC 101	Principles of Sociology	3		3
URS 101	Intro to Urban Studies	3		3
				15-16

SECOND SEMESTER

ENG 102	English Composition II	3	1	3
GOV 202	American National Government or			
SOC 102	Social Problems	3		3
Laboratory Science+ or MAT	Mathematics*+			3-4
Electives				6
				15-16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
ECO 201	Principles of Economics I	3		3
HIS 201	United States History to 1865	3		3
PSY 101	General Psychology	3		3
Elective	Government or Sociology	3		3
Electives				6
				18

SECOND SEMESTER

ECO 202	Principles of Economics II	3		3
HIS 202	United States History Since 1865	3		3
GOV 204	Public Administration	3		3
SOC 206	Minorities in American Life	3		3
Elective	Social Science			3
Elective				3
				18

+Select either two semesters of laboratory science or two semesters of mathematics.

* MAT 117 or higher. See Liberal Arts Programs guidelines under Mathematics course listings.

Courses recommended to fill elective requirements:

ACC 103	GOV 203, 208
BIO 101, 102, 103, 104	MAT 117, 125, 126
BUS 105, 106, 207	MAT 127, 128
CHE 101, 102, 106	PSY 105, 207, 212
CIS 101	SOC 205, 207
CRJ 101, 205	SOC 215, 216
ECO 207	SPA 105, 106
ENG 207, 208	



VISUAL ARTS/FINE ARTS

(OPTION OFFERED THROUGH LIBERAL ARTS)
ASSOCIATE IN ARTS DEGREE[‡]

The Visual Arts option will approach sculpture, architecture, painting, and drawing from a dual perspective. Students will explore the history and appreciation of art in the classroom and develop introductory and advanced skills in a variety of media in the drawing and painting studio.

See paragraph "Qualifications for Admission to Degree Programs" for desired high school background (see page 214).

The specific objectives of this program are that the graduate must be able to demonstrate:

- a practical and theoretical understanding of formal creative issues, including composition, balance, space, line, and form;
- the conceptual and perceptual skills associated with two dimensional imaging;
- a knowledge and familiarity of the use of diverse materials and various media and techniques employed in foundation level drawing and painting studio activities;
- a critical and aesthetic knowledge of the Visual Arts through an Art historical overview;
- a portfolio of work that demonstrates competency in the visual arts area undertaken and provides the necessary visual support material needed for transfer acceptance into a four-year program or an entry-level vocational position.



AFTER UCC

Graduates of this program can transfer to a four-year college or university into a similar program or other areas of interest and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

[‡] A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
ENG 101	English Composition I	3	1	3
FIA 109	Drawing I	3		3
MAT 127	Elementary Statistics or			
MAT 143	Elementary Mathematical Analysis I	4		4
	Modern Language	3		3
HIS 101	Intro to Western Civilization I	3		3
				16

SECOND SEMESTER				
ENG 102	English Composition II	3	1	3
FIA 110	Painting I	3		3
	Modern Language	3		3
HIS 102	Intro to Western Civilization II	3		3
	Laboratory Science	3	3	4
				16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
ENG	200-Level Literature course	3		3
FIA 115	Drawing II	3		3
PSY 101	General Psychology	3		3
ECO 201	Principles of Economics I	3		3
MAT 144	Elementary Mathematical Analysis II or			
	Laboratory Science	4		4
FIA 108	Appreciation of Art or			
FIA 111	History of Art	3		3
				19

SECOND SEMESTER				
ENG 128	Dynamics of Communication or			
ENG 129	Public Speaking	3		3
FIA 116	Painting II	3		3
FIA 224	Digital Imaging for Art and Photography	3		3
GOV 202	American National Government or			
PHI 205	Intro to Philosophy	3		3
PSY 102	Psychology of Personality	3		3
FIA	Diversity Course*	3		3
				18

* Students can take FIA 105 Music Appreciation or FIA 117 Music in the 20th Century to fulfill the Fine Arts Diversity course requirement.

WOMEN'S STUDIES

(LIBERAL ARTS OPTION OFFERED THROUGH PSYCHOLOGY/SOCIOLOGY DEPARTMENT) ASSOCIATE IN ARTS DEGREE*

The mission of the Women's Studies program is to recognize the increasingly important role that women have played and will continue to play in the numerous and diverse disciplines. Women's Studies is an interdisciplinary program that examines both the "natural" or biological differences and the social, cultural, political, historical, and economic factors that produce differences in how women live and are perceived in the world. These differences manifest themselves not only in the everyday life of men and women, but also in the functioning of our social institutions and systems of thought and representation.



The specific objectives of this program are that the graduate shall be able to demonstrate:

- critical thinking and problem solving skills;
- communicate effectively with others in a diverse society;
- demonstrate an awareness of the diverse factors that shape the world, including gender and sexuality, in order to keep pace with contemporary issues in an ever-changing society;
- learn independently and direct their own course of learning and specialization and be able to present those findings to a group of peers;

- recognize the basic differences of gender and sexuality and understand that there are dynamic social definitions that vary across time, place, politics and ideologies;
- discuss the fact that all the disciplines have been affected by the engendered historical and political contexts and even the sciences are not as impartial, objective or neutral as has traditionally been thought;
- demonstrate knowledge of the important female figures within various disciplines;
- recognize the need for continuing efforts to assure equality of women and other minorities in society.

WHERE YOU CAN GO FROM HERE

UCC graduates have the opportunity to matriculate at four-year colleges, pursuing not only a degree in Women's Studies, but this discipline integrates well with other possible majors such as Psychology, Sociology, Communications, Education, and Law. Graduates are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

* A diversity course (see page 110) is required for transfer to a 4-year institution

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
ENG 101	English Composition I	3	1	3
HIS 101	Intro to Western Civilization I	3		3
BIO 118	Intro to Biology of Women	3	3	4
	Modern Language	3		3
WMS101	Intro to Women's Studies	3		3
				16

SECOND SEMESTER

ENG 102	English Composition II	3	1	3
HIS 102	Intro to Western Civilization II	3		3
SOC 101	Principles of Sociology	3		3
MAT117	Intro to Mathematical Ideas**	3		3
	Modern Language	3		3
CIS 100	Intro to Computer Applications	2	2	3
				18

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
ENG 128	Dynamics of Communication or			
ENG 129	Public Speaking	3		3
ENG 245	Women in Literature I	3		3
GOV201	American Government and Politics* or			
GOV202	American National Government*	3		3
SOC 219	Women and Work	3		3
MAT 130	Women in Mathematics and Science	3		3
PSY 101	General Psychology	3		3
				18

SECOND SEMESTER

ENG 246	Women in Literature II	3		3
PSY 218	Psychology of Women	3		3
GOV216	Women and the Justice System* or			
GOV215	Women and American Politics*	3		3
PSY 215	Field Experience in Psychology			1-3
FIA	Fine Arts Elective	3		3
				14(15-16)

* Other 200-Level government courses may be substituted with permission of the department chairperson.

**MAT 119 may be required to transfer to certain four-year programs. MAT 125 is recommended for this program.



AMERICAN SIGN LANGUAGE AND DEAF STUDIES

CERTIFICATE

The American Sign Language & Deaf Studies Certificate of Completion Program is designed for individuals who currently have a college degree (Associate's degree or higher) and are interested in the fields of Deaf Studies, linguistics, communications, psychology, social work, rehabilitation, education of the Deaf and other related areas. The program provides a multi-disciplinary and interdisciplinary approach in American Sign Language and Deaf Studies. Areas of scholarly pursuit include cultural and historical studies, linguistic examination, and literary analysis, as well as the study of the language in its conversational form. Graduates will be prepared for entry-level positions working with Deaf persons. This program can be completed either as part-time or full-time in day or evening program.

Students are admitted to the ASL & Deaf Studies Program when they have demonstrated English competency and have satisfactorily completed the two semesters of the Pre-entry-level.

Deaf and Hard of Hearing students are encouraged to participate in this program.

The specific objectives of this program are that the graduate must be able to demonstrate:

- proficiency in the practices of communication with members of the Deaf community;
- competency in the use of American Sign Language and English;
- knowledge of the studies of American Sign Language as a distinct modern language, including scholarly pursuit of cultural and historical studies, linguistics and literacy analysis, as well as the language in its conversational and discourse styles;
- understanding of the social and cultural characteristics of American Deaf Culture, general and diverse American culture;
- understanding of the psychological and social factors affecting diverse populations within the Deaf community;
- effective written, spoken, and signed communication skills;
- an ability to learn independently and to direct his/her own learning;
- critical thinking and problem solving skills, with emphasis on using community resources to solve specified problems;
- awareness of one's rights and responsibilities as a professional and/or citizen in a world community.

GENERAL PROGRAM REQUIREMENTS

A grade of 'A', 'B', or 'C' in ASL 101, ASL I and ASL 102, VGC I meets satisfactorily the prerequisite requirement to enroll in ASL 103, ASL II, ASL 104, VGC II, and HUD 104 Fingerspelling. A grade of 'D' or 'F' in one of these courses does not allow the student to take the course sequences. The course(s) may be repeated once as this is the policy of Union County College.

A grade of 'A' or 'B' in ASL 103, ASL 104 and HUD 104 meets the prerequisites for ASL&DS and IDP. In proceeding courses (ASL 201, ASL 202, ASL 205, ASL 208, ASL 210) a grade of 'C' necessitates a conference with the instructor(s) and coordinator for consultation. A 'C' in more than one of these courses disqualifies the student from continuing in the program. A grade of 'D' or 'F' disqualifies the student from entry into or continuation of ASL&DS and ASL – English Interpreting Program (AEIP).

Conferences with respective instructor(s) and coordinators are by appointment only. Information about the American Sign Language & Deaf Studies and Interpreters for Deaf Programs may be obtained at the ASL&DS and AEIP office (Room 3, Plainfield Campus) or the counseling office at the Plainfield or Cranford campuses.

RECOMMENDED SEQUENCE

PRE-ENTRY-LEVEL

COURSE#	COURSE	LEC.	LAB	Cr.
FALL SEMESTER				
ASL 101	American Sign Language I	3.5	1.5	4
ASL 102	Visual-Gestural Communication Techniques	1.5	1.5	2
				6
SPRING SEMESTER				
ASL 103	American Sign Language II	3.5	1.5	4
ASL 104	ASL Classifiers			2
HUD 104	Fingerspelling	0.5	1.5	1
				7

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FALL SEMESTER				
ASL 201	American Sign Language III	2	3	3
ASL 205	Linguistics of American Sign Language	1.5	1.5	3
				6
SPRING SEMESTER				
ASL 202	American Sign Language IV	2	3	3
ASL 208	American Deaf Culture	3		3
PSY 207	Social Psychology	3		3
				9

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FALL SEMESTER				
ASL 203	American Sign Language V	3	3	3
ENG 128	Dynamics of Communication	3		3
ENG 216	Contemporary Literature	3		3
				9
SPRING SEMESTER				
ASL 210	ASL/Deaf Literature	3		3
	Humanities Elective	3		3
				6

AMERICAN SIGN LANGUAGE – ENGLISH INTERPRETING

CERTIFICATE

The American Sign Language-English Interpreting Certificate Program is designed for individuals who currently have a college degree (Associate's degree or higher) and are interested in the field of American Sign Language-English Interpreting. The program provides a multi-disciplinary and interdisciplinary approach of instruction. The five semester program (after the pre-entry-level is completed) is designed to equip students with knowledge and skills for entry-level sign language interpreting. Areas of scholarly pursuit include cultural and historical studies, linguistic examination, and literary analysis, as well as the study of the language in its conversational form. The courses within the program are geared to preparing students for evaluation for certification through the National Association of the Deaf-Registry of Interpreters for the Deaf National Interpreter Certificate. Graduates will be prepared for entry-level interpreting positions working with Deaf persons. This program can be completed either as part-time or full-time in day or evening.



NOTE: Subject to Change: UCC reserves the right to make changes in scheduling and in the programs.

GENERAL PROGRAM REQUIREMENTS:

A grade of 'C' or better in ASL 101, ASL I and ASL 102, VGC I meets satisfactorily the prerequisite requirement to enroll in ASL 103, ASL II, ASL 104, VGC II, and HUD 104 Fingerspelling

A grade of 'B' or better in ASL 103, ASL 104 and HUD 104 meets the prerequisites for ASL&DS and ASL-English Interpreting Program. In proceeding courses (ASL 201, ASL 202, ASL 205, ASL 208, ASL 210, HUD 105, HUD 106, HUD 103, HUD 108, HUD 215 and HUD 216) a grade of 'C' necessitates a conference with the instructor(s) and coordinator for consultation. A 'C' in more than one of these courses disqualifies the student from continuing in the program. A grade of 'D' or 'F' disqualifies the student from entry into or continuation of ASL&DS and ASL-English Interpreting Program.

Entry to third-year courses (HUD 108, HUD 106 and HUD 215) will be based on 'B' or better grades and demonstration of proficiency via examination. Permission to do Field Experience in Interpreting (HUD 216) will be based on demonstration of proficiency via examination and instructor of HUD 216.

The specific objectives of this program are that the graduate must be able to demonstrate:

- proficiency in the practices of communications with members of the Deaf community;
- competency in the use of American Sign Language and English;
- knowledge of the studies of American Sign Language as a distinct modern language, including scholarly pursuit of cultural and historical studies, linguistics and literary analysis, as well as the language in its conversational and discourse styles;
- understanding of the psychological and social factors affecting diverse populations within the Deaf community;
- knowledge of the ethical and professional standards of interpreters working in the field with Deaf and Hard of Hearing persons;

- understanding of types of interpretation and translations and the process of interpretation through the use of theoretical models;
- requisite skills and process tasks of American Sign Language-English interpretation;
- understanding of the field of interpretation from an historical perspective;
- understanding of contemporary issues in the field of interpreting and the Deaf community;
- effective written, spoken, and signed communication skills;
- ability to learn independently and to direct his/her own learning;
- critical thinking and problem solving skills, with emphasis on using community resources to solve specific problems;
- awareness of one's rights and responsibilities as a professional and/or a citizen in a world community.

AFTER UCC

Graduates will be prepared for entry-level interpreting positions working with Deaf persons.



AMERICAN SIGN LANGUAGE- ENGLISH INTERPRETING

CERTIFICATE cont'd

RECOMMENDED SEQUENCE

PRE-ENTRY-LEVEL

(ONE YEAR REQUIRED BEFORE ENTRY INTO PROGRAM)

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ASL 101	American Sign Language I	3.5	1.5	4
ASL 102	Visual-Gestural Communication Techniques	1.5	1.5	2
				6
SPRING SEMESTER				
ASL 103	American Sign Language II	3.5	1.5	4
ASL 104	ASL Classifiers	1.5	1.5	2
HUD 104	Fingerspelling	0.5	1.5	1
				7

FIRST YEAR

(FIVE-SEMESTER PROGRAM)

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ASL 201	American Sign Language III	2	3	3
ASL 205	Linguistics of American Sign Language	3		3
HUS 101	Community Resources in Human Services	3		3
				9
SPRING SEMESTER				
ASL 202	American Sign Language IV	2	3	3
ASL 208	American Deaf Culture & History	3		3
HUD 105	Interpreting Processes: Theory and Practice	2.5	1.5	3
				9

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
HUD 103	Text/Discourse Analysis for Interpreting	3		3
HUD 108	ASL to English Interpreting	2	2.5	3
				6
SPRING SEMESTER				
HUD 106	English to ASL Interpreting	3	1	3
HUD 110	Interpreting Role and Ethics	3		3
HUD 215	Advanced Techniques of Interpreting	1	2	2
				8
FALL SEMESTER (FIFTH SEMESTER)				
HUD 109	Prev Measures Against CTD in Interpreting	1		1
HUD 216	Field Work in Interpreting			3
				4

*** This track is designed for those who are full time students. The track may differ for those who are part-time students or not taking all the courses as suggested in the track.

+ The Certificate of Completion is designed for those who already have a college degree (Associate's degree or higher).

BIOTECHNOLOGY

THE FREDA & ROBERT N. BROWN BIOTECHNOLOGY PROGRAM

CERTIFICATE

The Biotechnology Certificate program is to educate and provide students with the fundamental knowledge and laboratory skill for the rapidly developing biotechnology industry. After completing the program students will be able to work with scientists in various aspects of DNA isolation and identification, protein purification and characterization and genetic engineering procedures.

WHERE YOU CAN GO FROM HERE

Graduates can work in the pharmaceutical and other industry laboratories.



RECOMMENDED SEQUENCE

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
CIS 100	Intro to Computer Application	2	2	3
ENG 101	English Composition	3	1	3
CHE 111	General Chemistry or			
CHE 113	Principles of Inorganic Chemistry	3	3	4
BIO 101	Intro to Biology or			
BIO 102	Human Biology	3	3	4
MAT119	Algebra*	3		3
				17

SECOND SEMESTER				
BIO 108	Microbiology	3	3	4
CHE 114	Principles of Organic and Biochemistry	3	3	4
BIO 202	Biotechnology	3	3	4
BIO 290	Independent Study/Special Projects	1		1
				13

Prerequisite: Satisfactory performance on the College Basic Skills Placement Test for students entering the program.

*MAT 143 or higher may be substituted.



BIOTERRORISM AND HOMELAND SECURITY

CERTIFICATE

The Certificate in Bioterrorism and Homeland Security is designed for individuals who are working in the area of public safety, emergency response, as well as those who are responsible for developing and implementing strategies and procedures in Bioterrorism and Homeland Security. Students entering this program must have medical training of Emergency Medical Technician – Basic level or higher to enter this program as there is an emphasis on the medical aspects of Bioterror response.

The curriculum is comprised of four courses, which are designed to integrate a common knowledge base in Bioterror and emergency response. Studies include assessment of current emergency procedures and response plans. Classes are interactive to foster discussion. Through participation in small and large-scale disaster exercises the student will integrate and implement the knowledge and skills to facilitate a quick, accurate, response to bioterror event and thus protect homeland security.

Upon completion of this certificate students will be able to:

- establish, implement, and interact within the Incident Command System;
- effectively develop and implement a disaster drill for the purposes of training and collaboration for emergency response;
- understand the historical events that contribute to the escalation of terrorism activity;
- describe the proactive mechanisms in order to handle a disaster situation and provide emergency response to an event;
- identify the human stress response to terror activity as a responder and member of society;
- complete an accurate threat and risk assessment;



- develop an effective emergency response safety plan based upon threats and risks identified;
- develop a disaster response plan that safely allows emergency workers to respond to scenes with chemical, biological, nuclear, or explosive agents present;
- medically treat people exposed to chemical, biological, nuclear, or explosive agents;
- properly decontaminate bystanders, patients or rescuers from exposure to chemical, biological, nuclear, or explosive agents.

WHERE YOU CAN GO FROM HERE

The Certificate in Bioterrorism and Homeland Security is designed for individuals who are working in the area of public safety, emergency response, as well as those who are responsible for developing and implementing strategies and procedures in Bioterrorism and Homeland Security.

RECOMMENDED SEQUENCE

COURSE#	COURSE	LEC.	LAB	Cr.
PREREQUISITES				
ENG 101	English I	3	1	3
PSY 101	Intro to Psychology	3		3
Medical Training EMT-B or higher				

FIRST SEMESTER

EHS 203	Incident Command System	3		3
EHS 204	History of Terrorism	4		4

SECOND SEMESTER

EHS 205	Emergency Planning	3		3
EHS 206	Chemical, Biological, Nuclear, Hazards	3		3

Total credits 13

If students are seeking a full-time student status the following optional courses will enhance their knowledge base and prepare them for a four-year degree.

COURSE#	COURSE	LEC.	LAB	Cr.
PREREQUISITES				
ENG 101	English I Required	3	1	3
PSY 101	Intro to Psychology Required	3		3
Medical Training EMT-B or higher				

FIRST SEMESTER

EHS 203	Incident Command System	3		3
EHS 204	History of Terrorism	4		4
EHS 201	Health Care Leadership	3		3
CHE 113	Principles of Inorganic Chemistry	3	3	4

Total credits 14

SECOND SEMESTER

EHS 205	Emergency Planning	3		3
EHS 206	Chemical, Biological, Nuclear, Hazards	3		3
BIO 119	Fundamentals of Microbiology	3		3
EHS 202	Health Care Administration	3		3
CHE 114	Principles of Organic Chem. & Biochemistry	3	3	4

Total credits 16

CORRECTIONS

CERTIFICATE



Corrections is a 30-31 credit program designed for individuals who are interested in the fields of police, corrections, probation, parole, and juvenile delinquency.

The specific objectives of this program are that the graduate must be able to demonstrate:

- an understanding of the field of criminal justice;
- a knowledge of the administration of the correctional system;
- basic knowledge of criminal law;
- the ability to communicate with emphasis on effective police reports;
- an understanding of criminal justice problems in business and industry;
- an understanding of the dynamics involved with community based treatment of the offender.

AFTER UCC

Graduates can transfer to four-year colleges and universities and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

RECOMMENDED SEQUENCE

COURSE#	COURSE	LEC.	LAB	CR.
CRJ 101	Intro to Criminal Justice	3		3
CRJ 109	Correctional Administration	3		3
CRJ 203	Criminal Investigation	3		3
CRJ 206	Criminal Law	3		3
CRJ 208	Community Based Treatment of the Offender	3		3
CRJ 223	Criminal Justice Problems in Business and Industry	3		3
ENG 101	English Composition I	3	1	3
PSY 101	General Psychology	3		3
MAT	Mathematics or Science Elective			3-4
ADM 101	Keyboarding I or Elective			2-3
				30-31



CRIMINAL JUSTICE

CERTIFICATE

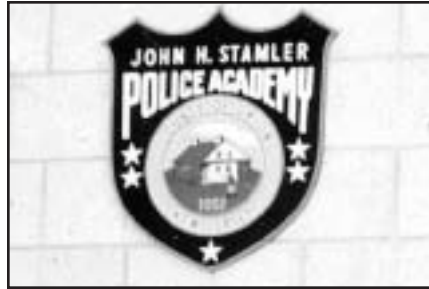
Criminal Justice is a 30-31 credit program designed for individuals who are interested in the fields of police, corrections, probation, parole, and juvenile delinquency.

The specific objectives of this program are that the graduate must be able to demonstrate:

- knowledge of criminal justice, including police organization and administration and police management;
- an awareness of her/his rights and responsibilities as an officer of the law in society;
- a knowledge of the procedures involved in criminal investigation;
- the ability to communicate, in writing, with particular emphasis on the writing of effective police reports.

AFTER UCC

Graduates can work in the field of criminal justice or can further their education in the field.



RECOMMENDED SEQUENCE

COURSE#	COURSE	LEC.	LAB	CR.
CRJ 101	Intro to Criminal Justice	3		3
CRJ 102	Police Administration	3		3
CRJ 201	Police Management Systems	3		3
CRJ 203	Criminal Investigation	3		3
CRJ 205	Police Community Relations	3		3
CRJ 206	Criminal Law or			
CRJ 208	Community Supervision of the Offender	3		3
CRJ 223	Security in Business and Industry	3		3
ENG 101	English Composition I	3	1	3
PSY 101	General Psychology	3		3
MAT Science	Mathematics or Elective			3-4
30-31				

DATABASE SPECIALIST

CERTIFICATE

The Database Specialist Certificate Program is designed to meet the needs of those students who have decided to specialize in database management. Database specialists should possess the skills necessary to design databases. They should be knowledgeable about redundancy and its problems. Additionally, they should be able to write Visual Basic programs that interface with the databases. They need to possess good communication skills.

The specific objectives of this program are that the graduate must be able to demonstrate:

- the ability to communicate effectively with others;
- the ability to work well as a member of a team;
- the ability to work independently;
- an awareness of the current capabilities of database management systems;
- an aptitude for designing logical databases;
- an understanding of the ethical and social issues involved in computing.



AFTER UCC

Graduates can work in the field of Database Management or upgrade their skills with advanced education.

RECOMMENDED SEQUENCE

COURSE#	COURSE	LEC.	LAB	Cr.
CIS 101	Intro to Information Systems	2	2	3
CIS 116	Access	2	2	3
CIS 130	Introductory Visual Basic	2	2	3
CIS 204	Database Management	2	2	3
CIS 202	Systems Analysis and Design	3	1	3

Prerequisites for required courses must be successfully completed prior to registering for courses.



DEAF-BLIND INTERPRETING

CERTIFICATE

This certificate is designed for individuals who want to obtain a certificate of completion in Deaf-Blind Interpreting. The program will be designed to admit students who have any Associate Degree or higher and have graduated from an interpreting training program, be either state screened or nationally certified, and/or be currently working as interpreters. Deaf persons will be eligible to enroll in the program, provided they have a minimum of 60 credits or an Associate degree and have two letters of recommendation from agencies or programs which provide services to the Deaf and Hard of Hearing population or the Deaf-Blind population. The introductory course, Intro to Deaf-Blindness and Deaf-Blind Community, will be open to anyone with an Associate degree or higher who has an interest in learning more about this subject area. The short certificate program will be 9 college credits.

The specific objectives of this program are that the graduate must be able to demonstrate:

- define deaf-blindness and understand how Deaf-Blind people differ from people who are hearing and sighted, blind, or deaf;
- understand the hallmarks of Deaf-Blind people's lives, particularly regarding mobility and transportation, community services, relationships, and the diversity of communication modes that exist within the Deaf-Blind community;
- be familiar with the etiquette and importance of touch and become comfortable with specialized manners or approaches used with Deaf-Blind people;

- gain basic knowledge regarding the perspective and worldview of Deaf-Blind people and the roles/relationships involved in working and/or socializing with Deaf-Blind people;
- possess basic knowledge about common community resources and typical career paths of Deaf-Blind people;
- have a basic understanding of the anatomy of the eye;
- identify the basic similarities and differences across etiologies of deaf-blindness;
- be familiar with the causes of deaf-blindness and its impact on the Deaf-Blind person's communication and worldview;
- recognize the implication of the differences as they relate to language and communication preferences, visual conditions, mobility, social and emotional adjustment, education, and identification with culture and community;
- be aware of the various modifications to communication that may be necessary when interpreting for Deaf-Blind people (e.g., inclusion of visual, cultural, and contextual information, pacing, condensing, vocabulary, and conceptual adjustments);
- be aware of the psychosocial impacts of deaf-blindness and one's cultural identity; be able to use this awareness to interact with Deaf-Blind people in a respectful manner.

RECOMMENDED SEQUENCE

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
DBI 201	Intro to Deaf-Blindness and Deaf-Blind Community	3		3
DBI 205	Communication Methods and Sighted Guide Techniques	2	1	2
SPRING SEMESTER				
DBI 210	Interpreting Strategies for Deaf-Blind Interpreting	3	3	4

The short certificate program will be 9 college credits.

WHERE YOU CAN GO FROM HERE

This certificate is designed for individuals who want to obtain a certificate of completion in Deaf-Blind Interpreting. The program will be designed to admit students who have any Associate Degree or higher and have graduated from an interpreting training program, be either state screened or nationally certified, and/or be currently working as interpreters.

DENTAL ASSISTING

CERTIFICATE

The dental assistant is a valuable member of the dental health care team. The scope of the dental assistant's responsibilities is determined by educational preparation, type of practice, and the laws of the state in which one is employed. The dental assistant works at the chairside with the dentist. Chairside duties include receiving and preparing the patient for treatment; sterilizing and selecting instruments; assembling materials and equipment; organizing the work area; maintaining the operative field; exposing, processing, and mounting dental radiographs; and providing instructions in oral hygiene and nutritional counseling. Other responsibilities include office management and the performance of basic laboratory procedures. The dental assistant schedules appointments, maintains patient records and financial accounts, answers the telephone, prepares insurance forms, collects payments, orders supplies and maintains an inventory of same. Basic laboratory tasks such as pouring impressions, trimming study models, fabricating custom trays, and preparing base plates and bite rims are also provided by the dental assistant.

The New Jersey Dental Auxiliaries Act of 1979 provides for the extension of the functions normally performed by dental assistants. The rules and regulations for this legislation outline specific tasks which may be assigned to dental assistants possessing state "registration in expanded functions." The teaching of expanded functions is an integral component of the UMDNJ-UCC curriculum.

By virtue of an agreement between UCC and the School of Health Related Professions (SHRP) of the University of Medicine and Dentistry of New Jersey (UMDNJ) a certificate in dental assisting is conferred upon successful program graduates.

A high school diploma or its recognized equivalency with a minimum of a 2.0 cumulative grade-point average is required for admission into the program. In addition, scores from the College Placement Test must be forwarded for review. Those persons who lack certain basic skills will have to complete the indicated remedial courses and demonstrate competence in all basic skills before entering the Program. Candidates are rank ordered according to GPA. The dental assistant must possess manual dexterity, and good vision health and oral hygiene habits.



The program is approved by the New Jersey Department of Higher Education and accredited by the Council on Dental Accreditation of the American Dental Association, the specialized accrediting agency recognized by the Council on Post-Secondary Accreditation and the U.S. Department of Education.

Admission is limited. For admission information, contact the Union County College admission representative at the Scotch Plains Campus. All students will be attending both Scotch Plains and Newark campuses. Application deadline April 1 annually.

Inextricably related to SHRP's overall mission, the mission of the UMDNJ-SHRP's Department of Allied Dental Education is to promote professional standards of excellence and leadership among its students and health professionals while meeting the health care needs of New Jersey residents through patient care, education, research, and service.

The Department's unique and innovative curriculum reflects the direction of allied dental practice and often presages the evolution of the profession. The Department seeks to develop new and innovative approaches to education while keeping pace with current treatment modalities and research strategies. The students develop a humanistic approach to health care delivery as well as critical thinking, problem solving, independent decision making, and research skills which characterize the professional.

Effective September 2004 all professional courses will be offered through UMDNJ at the University tuition rate.

For further information contact the Scotch Plains campus at 908-889-2483.

The Department strives to instill in its students and members of the allied dental professions, a dedication to life-long learning, and provides opportunities for continued growth within the health professions.

The specific objectives of this program are that the graduate must be able to:

- exhibit competency as clinicians through demonstrated performance on the Certified Dental Assistants Examination (CDA) administered by the Dental Assisting National Board and feedback from Employer Surveys;
- assume responsibility for health promotion and disease prevention for individuals and communities through participation in multiple dental health education projects;
- perform multiple, advanced level dental auxiliary functions as defined in the New Jersey State Dental Practice Act under the auspices of Clinical Assisting and Internship;
- obtain the Registered Dental Assistant credential issued by the State Board of Dentistry of New Jersey;
- demonstrate professional development through membership in the American Dental Assistants' Association and participation in related activities;
- display professionalism in the delivery of comprehensive dental health care through achievement of satisfactory grades in the section of the evaluation form for Clinical Assisting and Internship;
- prepare individuals for employment as dental assistants;
- determine student satisfaction with educational programming.

AFTER UCC

Graduates who successfully complete the program and demonstrate competency through their performance on the Certified Dental Assistants Examination (CDA) may begin their career as a Dental Assistant.

DENTAL ASSISTING

CERTIFICATE cont'd

THREE OF THE GENERAL EDUCATION REQUIREMENTS MUST BE COMPLETED BEFORE ENTERING THE PROFESSIONAL PHASE OF THE PROGRAM:

COURSE#	COURSE	LEC.	LAB	CR.
ENG 101	English Composition I	3	1	3
PSY 101	General Psychology	3		3
BIO 105	Anatomy & Physiology	3	3	4
				10

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
UDC 111	Dental Head & Neck Anatomy (Core Course)	3		3
UDC 120	Intro to the Dental Profession (Core Course)	3	3	4
UDC 124	Medical Emergencies in the Dental Office	1	1	1
UDC 125	Dental Materials (Core Course)	2	3	3
UDC 126	Dental Specialties (Core Course)			1
				12

SECOND SEMESTER

UDC 246	Practice Management (Core Course)	1		1
UDA 232	Dental Science	2		2
UDC 121	Dental Radiology (Core Course)	2	3	3
UDC 231	Dental Health Education (Core Course)	1		1
UDA 270	Clinical Assisting*		12	3
UDA 300	Internship*		8	1
				11

*A total of 300 combined clinical hours must be completed.

Effective Fall 2004, students register for the professional phase courses at the UMDNJ Scotch Plains campus and pay the UMDNJ undergraduate tuition rate and fees.

The nature of the courses may require students to act as dental service providers and patients with fellow students.

Please note that the State Board of Dentistry of New Jersey conducts criminal background checks on all applicants.

ELECTROLOGY

CERTIFICATE

Electrology is the only method of permanent hair removal approved by the Food & Drug Administration. With electrolysis, a fine probe is inserted into the hair follicle and a heat current is applied, effectively eliminating the germinative cells that are responsible for hair growth. Hair removal has become a multi-billion dollar industry. Currently, there are many TEMPORARY methods of hair removal such as tweezing, waxing, shaving, depilatories, prescription cream and even laser. Skin irritations, ingrown hairs, discoloration and scarring may result. These methods contribute to an increase in hair growth activity.

The Electrology Certificate Program is a 28 credit, three-semester program that fulfills the 600-hour New Jersey State licensing requirements for education in electrology. Upon completion of this program, students qualify to take the New Jersey Licensing examination.

When applying to register for this examination, one will be asked to present a copy of the certificate received from the school attended for their 600 hours of electrology study.

After passing this examination, one would be a Board Certified Electrologist and would be allowed to practice in the State of New Jersey. For further information on the New Jersey State requirements for licensing, please contact:

The American Electrology Association
P.O. Box 687
Bodega Bay, CA 94923
(707) 875-9135
(707) 875-3340



The specific objectives of this program are:

- students will develop a background in electrolysis theory;
- students will develop a proficiency in the skill and practice of electrolysis;
- the program will prepare students for the New Jersey Licensure Examination;
- the program will provide students with the business skills necessary to open their own business, if desired;
- to provide the student with a thorough knowledge of the theory and practical applications of the 3 methods of permanent hair removal, galvanic electrolysis, thermolysis and the blend;
- to familiarize students with the various electrolysis machines and equipment on the market today with the emphasis on computerized equipment.

AFTER UCC

Graduates from the Electrology program qualify to take the New Jersey State Examination to become Licensed Electrologists.

RECOMMENDED SEQUENCE

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
ENG 101	English Composition	3	1	3
BIO 102	Human Biology	3	3	4
BUS 200	Small Business Management	3		3
ELG 101	Basic Electrology	3	3	3

13

SECOND SEMESTER

BIO 119	Fundamentals of Microbiology	2	1	3
ELG 102	Clinical Practice in Electrology	5	3	5

8

SUMMER SEMESTER

ELG 201	Advanced Clinical Practice II	5	3	5
ELG 202	Professional Electrologist Business Practices	3	2	2

7

Total Certificate Program Credits 28

License Requirements:

200 hours Electrology Theory
400 hours Electrolysis Practice
600 hours total required

600 hour License Requirement is fulfilled by all students who complete the program.

Graduates will be eligible to take the New Jersey licensing examination.

Program can be taken full or part time.



END-USER COMPUTING

CERTIFICATE

The End-User Computing Certificate Program is designed to meet the needs of those students who require information from computers to aid in decision making and problem solving. End-Users generally work at computer keyboards and either access and apply the information created by others, or develop their own methods for accessing information. End-Users frequently work with productivity software and query languages to obtain the information necessary to perform their task or to assist others.

This certificate is also directed to those students already possessing a degree in other areas who feel the need to supplement their education in the field of computer information systems.

See paragraph "Qualifications for Admission to Certificate and Diploma Programs" for desired high school background (see page 214).

The specific objectives of this program are that the graduate must be able to demonstrate:

- the ability to communicate effectively with clerical personnel, analysts, and users;
- an awareness of state-of-the-art hardware and software;
- an aptitude for using existing application software packages, utilities, and libraries;
- an understanding of ethical and social issues in computing technology;
- a proficiency in communicating effectively and using the Internet and E-mail.

AFTER UCC

Graduates can find work at computer keyboards, work with productivity software and Query languages to obtain the information necessary to perform their tasks or to assist others.

RECOMMENDED SEQUENCE

COURSE#	COURSE	LEC.	LAB	CR.
ADM 101	Keyboarding for the Computer	1	2	2
ENG 101	English Composition	3	1	3
MAT 113	Business Mathematics*	3		3
ADM 213	Word I	2	2	3
CIS 115	Excel I	2	2	3
CIS 204	Database Management	2	2	3
CIS 105	Data Communications and Networks	2	2	3
Technical Electives**				12
				32

*MAT 113 or higher

****CHOOSE FROM THE FOLLOWING TECHNICAL COURSES:**

ACC 210	Microcomputers in Accounting
BUS 101	Intro to Business
BUS 105	Organization and Management
CIS 100	Intro to Computer Applications
COM 107	Desktop Publishing
ADM 135	Technical Editing
CIS 117	Professional Presentations
CIS 120	The Internet
CIS 116	Access

Prerequisites for courses must be successfully completed prior to registering for courses.

ENGLISH FOR SPEAKERS OF OTHER LANGUAGES

(THE INSTITUTE FOR INTENSIVE ENGLISH) CERTIFICATE

The Institute for Intensive English is a full-time program of intensive instruction in English for speakers of other languages. The students' objective is to enhance their English language abilities in order to further their academic, career, and/or personal goals.

After placement testing, students enter one of six levels of instruction commensurate with their abilities. In the first through fourth levels all instruction is covered in integrated courses. In the fifth and sixth levels, students are required to register for four concomitant courses: two core courses covering structure, listening, conversation and study skills; a reading course; and an academic writing course.

In addition, students may enroll in a pronunciation or conversation elective. An ESL Mathematics course is also offered. Students in level six are eligible to enroll in special sections of Business 101 or Psychology 101 with ESL 083-Advanced Reading in Business for ESL or ESL 084-Advanced Reading in Psychology for ESL. Beginning at level 3 students may also enroll in Keyboarding (ADM 101) or an ESL Mathematics course.



At the termination of each course, there is a criterion-referenced exit test where, a student's proficiency is assessed. Levels 1 to 4 receive a grade of Pass/Fail while Levels 5 and higher receive a letter grade.

AFTER UCC

Upon successful completion of the sixth level of instruction, a student is presented an award of completion. The student may then apply to enter a full-time or part-time degree program of study to include ENG 111-112, a two-semester sequence of college composition for ESL students.



FIRE SCIENCE TECHNOLOGY

CERTIFICATE

The Fire Science Technology Certificate Program is tailored to meet the needs of students who desire to limit their enrollment to the technical fire science courses basic to the Associate in Applied Science degree program. It is also directed to those students possessing college degrees in other areas of higher education.

The certificate is endorsed by the Department of Higher Education. Graduates of the Union County Fire Academy will be granted 6 credit hours of advanced standing upon matriculation in this program.

See paragraph "Qualifications for Admission to Certificate and Diploma Programs" for desired high school background (see page 214).



The specific objectives of this program are that the graduate must be able to demonstrate:

- the ability to apply analytical skills to the reading of building blueprints and codes;
- knowledge of fire prevention, including fire prevention systems and building codes;
- the ability to apply problem solving skills to specific fire ground situations;
- knowledge of fire fighting strategies and tactics;
- knowledge of the organization and management of fire departments;
- knowledge of the procedures and management involved with incident command;
- the application of problem solving skills to the detection of fire and its causes.

AFTER UCC

Graduates can work in the field of fire science or transfer to an Associate degree program.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
ENG 101	English Composition I	3	1	3
FST 103	Fire Protection	3		3
				6

SECOND SEMESTER				
FST 102	Building Construction	3		3
FST 105	Fire Prevention	3		3
				6

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
FST 106	Fire Fighting Tactics	3		3
FST 107	Hazardous Materials	3		3
MAT 117	Intro to Mathematical Ideas	3		3
				9

SECOND SEMESTER				
FST 108	Fire Hydraulics	3		3
FST 113	Fire Department Organization & Management	3		3
PSY 101	General Psychology	3		3
				9

Graduates of the Union County Fire Academy will be granted 6 credits of advanced standing when they matriculate in the program.

GERONTOLOGY ACTIVITIES

CERTIFICATE

The Gerontology Activities Certificate is a multi-disciplinary program and is designed for those who plan to work with Senior Citizens. Specific Gerontology courses are aimed at familiarizing students with special problems and needs of older adults, and community resources available to meet those needs. This certificate is for those who have already earned, or are earning a degree in another (or related) field.

See paragraph "Qualifications for Admission to Certificate and Diploma Programs" for desired high school and college background (see page 214).

The specific objectives of this program are that the graduate must be able to demonstrate:

- an understanding of group dynamics and an ability to encourage effective communication among a small group;
- critical thinking and problem solving skills, with emphasis on using community resources to solve specified problems;
- an understanding of the psychological effects of aging;
- an understanding of the social factors affecting diverse populations.



AFTER UCC

Graduates can work in Senior Citizen Centers as Coordinators of Activities, Recreation Specialists, or other related activities. Graduates are also prepared for National Certification Education requirements.

In order to successfully complete this program, the student will be required to take the following courses and may be required to take additional electives. BE SURE TO CONFER WITH A UCC COUNSELOR WHEN PLANNING YOUR COURSE SCHEDULE.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
HUG 101	Multidisciplinary Perspectives on Aging	3		3
HUS 101	Community Resources in Human Services*	3		3
				6

SECOND SEMESTER

PSY 105	Group Dynamics	3		3
PSY 212	Psychology of Aging	3		3
				6

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FIRST SEMESTER				
SOC	A Sociology Elective Course*	3		3
BIO	a BIO Course from the List Below**	4		4
				7

SECOND SEMESTER

Elective	(choose from list below)***	3		3
HUS 201	Externship in Human Services	3		3
				6

*SOC 206, SOC 218, or a topics course (SOC 270) can be taken

**Choose from: BIO 107, BIO 118, BIO 110, or BIO 105 & BIO 106. (BIO 105 and 106 are a two semester sequence.)

***Choose from: any CIS 3-credit computer course, BUS 105, HUG 201 (which together with the externship equals the NCCAP MEPAP credits that can be obtained through the Assessment of Prior Learning Program p. 245), or another related course approved by the Gerontology Coordinator.

Courses in the Gerontology/Activities program meet requirements toward certification by the National Certification Council for Activity Professionals (NCCAP). Students are also encouraged to take the basic course offered by NCCAP.



INFORMATION PROCESSING

CERTIFICATE PROGRAM

The Information Processing Certificate is a 31-credit program which prepares the graduate to perform the functions of a corresponding secretary in an automated office. Emphasis is placed on communication development and hands on experience on various software.



AFTER UCC

Graduates who complete this program can perform the functions of a corresponding secretary in an automated office.

RECOMMENDED SEQUENCE

COURSE#	COURSE	LEC.	LAB	Cr.
ENG 101	English Composition I	3	1	3
MAT 113	Business Mathematics*	3		3
CIS 100	Intro to Computer Applications	2	2	3
CIS 120	The Internet	2	2	3
ADM 103	Shorthand I	3	2	4
ADM 102	Keyboarding for the Computer II	1	2	2
ADM 122	Intermediate Keyboarding	2	3	3
ADM 131	Administrative Procedures	3		3
ADM 135	Proofreading and Editing Skills	3		3
ADM 213	Word I	2	3	3
Total Credits				30

*MAT 113 or higher

Challenge exams may be taken for CIS 100, ADM 101, ADM 102 and ADM 103.

INTERPRETING SPOKEN LANGUAGE

CERTIFICATE



This program prepares its graduates to become court interpreters. Fluency in both English and at least one other language is required for admission to the program. Students will develop their interpreting ability with courses that focus on consecutive interpreting, simultaneous interpreting, and sight translation. Students will also be prepared to enter the workforce as freelance interpreters by learning about how to succeed in the field of professional interpreting and translating. Ethical issues and the responsibilities of the interpreter are also taught.

The specific objectives of this program are that the graduate must be able to demonstrate:

- the ability to perform simultaneous interpreting;
- the ability to perform consecutive interpreting;
- the ability to perform sight translation of legal documents;
- the ability to pass the New Jersey State Certification Exam for Court Interpreters on the level of Journeyman;
- the knowledge of techniques necessary to maintain and improve one's interpreting skills after graduation;
- the ability and the knowledge to enter the workforce as a professional freelance interpreter;
- an awareness of the diverse cultural factors which play a crucial role in language interpreting;
- an awareness of the ethical principles and responsibilities underlying the role of court interpreter.

AFTER UCC

Graduates will be prepared to enter the workforce as freelance or court interpreters by learning about how to succeed in the field of professional interpreting and translating.

RECOMMENDED SEQUENCE

COURSE#	COURSE	LEC.	LAB	Cr.
INT 101	Interpreting I	3		3
INT 102	Interpreting II	3		3
INT 105	Role of Interpreter	3		3
TRN 101	Intro to Written Translation	3		3
ENG 101	English Composition I or	3	1	3
ENG 111	and ENG 112 English Comp. For Speakers of Other Lang	6		6
ENG 128	Dynamics of Communication	3		3
ENG 129	Public Speaking	3		3
General Education Electives:				
	Mathematics or Science			3-4
	Social Science			3
	Humanities (ENG 112 serves as a humanities elective)			
Total Credits				33-34



MARKETING, ADVERTISING AND DESIGN

CERTIFICATE

This unique career-oriented certificate program combines art, commercial photography, graphic arts and the study of film, publication editing with business, and general education. The emphasis is on hands on experience in the classroom, laboratory or studio to develop the skills essential to business-oriented art and communication careers.



The specific objectives of this program are that the graduate must be able to demonstrate:

- the ability to apply the knowledge of graphic arts to creating advertisements;
- the ability to think creatively through project development and implementation;
- provide hands on experience with professional designers and photographers;
- skills in graphic design and commercial photography techniques;
- skills necessary for business-oriented art and communication careers in a laboratory or studio setting;
- creative marketing skills necessary for career success.

AFTER UCC

Graduates will gain hands on experience in marketing, advertising and design, and will have developed skills essential to business-oriented art and communication careers.

RECOMMENDED SEQUENCE

COURSE#	COURSE	LEC.	LAB	CR.
COM107	Publication Editing and Design	3		3
COM101	Mass Communications	3		3
COM109	Intro to Film Study	3		3
FIA 202	Graphic Design I (prerequisite)	3		3
FIA 221	Black and White Photography I	3		3
FIA 108	Art Appreciation	3		3
BUS 208	Principles of Marketing	3		3
BUS 203	Principles of Advertising	3		3
BUS 101	Intro to Business	3		3
ENG 101	English Composition I	3	1	3
PSY 101	General Psychology	3		3

33

MASSAGE THERAPY

CERTIFICATE

This program is designed for individuals who want to obtain a certificate of completion in massage therapy. The program will be designed to admit students who have finished high school (or the equivalent) and meet the requirements for admittance to Union County College. The program also hopes to attract those students already working in the health care field who wish to complete additional certification to become a Massage Therapist. The certificate program is 38 college credits which translates to 720 clock hours as per the Commission on Massage Therapy Accreditation (COMTA). The program is designed to meet all of the standards set by COMTA. Credits have been calculated using the formula required by COMTA. Students applying to the massage therapy program will be expected to have passed the basic skills competency test or to have completed, with a grade "C" or better, the remedial coursework required. Students will be encouraged to take the National Certification Examination for Therapeutic Massage and Bodywork (NCBTMB).



The specific objectives of this program are that the graduate must be able to demonstrate:

- mastery of the six major types of massage techniques;
- a comprehensive knowledge of Anatomy and physiology, Kinesiology and Pathophysiology as they relate to therapeutic massage;
- professional level competency to perform a full body massage;
- knowledge of the indications and contraindications for therapeutic massage;
- the assessment tools to determine when it is appropriate to refer clients to other health care practitioners;
- the ability to design an appropriate treatment plan utilizing professional skills with an appreciation of the ethical responsibilities of a massage therapist/client relationship;
- understanding and skills needed to perform Eastern massage therapy techniques;
- understanding the theory and philosophy of Eastern massage and techniques;
- demonstrate knowledge and skills necessary to operate a massage therapy business.

Students are required to have a valid CPR/BLS certificate from a course approved by the American Heart Association to graduate from the Massage Therapy Program.

RECOMMENDED SEQUENCE

Students must meet the prerequisites before coming into the massage therapy program in the spring.

COURSE#	COURSE	LEC.	LAB	CR.
PREREQUISITES				
BIO 105	Anatomy & Physiology I	3	3	4
ENG 101	English Composition I	3	1	3
				7

SPRING SEMESTER

BIO 106	Anatomy and Physiology II	3	3	4
MST 100	Fundamentals of Massage Therapy	3		3
MST 101	Massage Therapy I	3	3	4
MST 102	Kinesiology for Massage Therapists	3	3	4
MST 103	Clinic I*		2	1
				16

SUMMER SEMESTER I

MST107	Clinic II**		2	1
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FALL SEMESTER

MST 104	Massage Therapy Business Management Seminar	1		1
MST 105	Massage Therapy II	3	3	4
MST 106	Eastern Massage Therapy	3	3	4
IDH 212	Pathophysiology	3		3
MST 108	Clinic III		4	2
				14

TOTAL CREDITS 38

*Begins at Week 8

**Eight (8) week session

Please call the Program Coordinator (908) 791-4916 for counseling on course selection.



MULTIMEDIA DEVELOPMENT

CERTIFICATE

The Multimedia Development Certificate Program is a 30-credit course of study intended to prepare students for careers in multimedia design and development. The certificate is intended for students who have completed a college degree, or have prior field experience and wish to develop skills in computer presentation management, desktop publishing, digital media development, and authoring. Students will be required to develop proficiency in a wide range of software tools and design techniques, and specialize in a content area that will be determined by their choice of electives.



The specific objectives of this program are that the graduate must be able to demonstrate:

- a level of comfort and proficiency with standard productivity software such as word processors, presentation managers, web browsers and databases, as well as an understanding of the ways in which these tools are applied in the communications field;
- facility with the cutting-edge tools necessary to be competitive in the high-technology arena of multimedia development and design;
- the ability to work effectively as a member of a team;
- professional competence in the technical and theoretical skill-set that constitutes the working toolbox of today's multimedia developer and web design specialist.

AFTER UCC

Graduates will be capable of creating compelling multimedia content drawn from a variety of media-digital audio and video, images and text, designed and developed on cutting-edge equipment and ready for delivery in a variety of forms as live presentations, on CD-ROM, and over the Internet.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
COM 100	Communications Technology	3		3
ENG 101	English Composition I	3	1	3
COM107	Publication Editing and Design	3		3
				9

SECOND SEMESTER				
COM206	Television Field Production	3		3
COM112	Multimedia Development I- Presentation Management	3		3
				6

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
COM216	Digital Video Editing and Multimedia Imaging	3		3
COM207	Advanced Publication Editing and Design	3		3
Elective -From list below				6

SECOND SEMESTER				
COM212	Multimedia Development II- Multimedia Authoring	3		3
Elective-From list below				3
				6

Electives: (all 3 credits)

Film: COM 109 Intro to Film Study, COM 209 The Evolution of Film;

Television: COM 106 Intro to Television Production and Theory, COM 214 Communications Practicum- Internship;

Cultural Studies: COM 101 Mass Communications, COM 201 Issues in Mass Media;

Journalism/Technical Writing: COM 102 Reporting and News Writing, COM 202 Advanced Reporting and News Writing, ENG 122 Introductory Technical and Business Writing;

Illustration: FIA 109 Drawing I, FIA 209 Illustration I;

Design: FIA 104 Basic Design, FIA 202 Graphic Design;

Photography: FIA 221 Black and White Photography I, FIA 222 Black and White Photography II, FIA 223 Color Photography

OFFICE PROFESSIONAL

CERTIFICATE

The Office Professional certificate program upgrades a student's skills necessary to survive in the ever-changing office. The program provides a strong background in technology courses using up-to-date software. Prior to entering the program, students must have successfully completed English Composition and Keyboarding. Challenge exams are available for keyboarding. A CLEP exam may be taken for English.

The specific objectives of this program are that the graduate must be able to demonstrate:

- critical thinking and problem solving skills;
- professional communication skills;
- the ability to communicate effectively using E-mail and the Internet;
- the ability to use beginning/advanced features of MS Word;
- the ability to use beginning/advanced features of MS Excel;
- the ability to use beginning/advanced features of MS PowerPoint;
- the ability to use additional application packages.



This certificate is designed for people who need to update their computer application skills. Upon completion of this certificate the student may apply these credits toward the Business Management AAS degree or the Administrative Support/Information Processing AAS degree.

AFTER UCC

Graduates can enter the workforce or the Business Management or Administrative Support/Information Processing degree programs.

RECOMMENDED SEQUENCE

COURSE#	COURSE	CR.
ADM 213	Word I	3
CIS 115	Excel I	3
CIS 117	Powerpoint	3
CIS 120	The Internet	3
Elective	Technical **	3
		15

**Choose from the following technical electives:

CIS 116 Access
CIS 106 Visual J++ Programming
CIS 130 Introductory Visual Basic
ADM 135 Proofreading and Editing Skills
ADM 214 Word II

Prerequisites:

ENG 101 English Composition I
ADM 101 Keyboarding for the Computer (or higher)



PARAMEDIC DIDACTIC TRAINING PROGRAM

CERTIFICATE

The Paramedic Program is intended for participants who are interested in helping and treating patients to the highest level of care outside of the hospital. Prospective students should have an interest in pathophysiology and be able to work in an undynamic environment. This program is based upon the standards set forth by the U.S. Department of Transportation and the National Registry of Emergency Medical Technicians - National Curriculum. The program is approved and sanctioned by the New Jersey Department of Health Office of Emergency Medicine.

Graduates of the paramedic program must be able to demonstrate:

- critical thinking and problem solving skills with an emphasis on therapeutic communication;
- the ability to use and select information from available sources as it relates to patient assessment and emergent patient treatments;
- an understanding of the inter-relationships between patient's symptoms and physiology of disease processes;
- the ability to perform a skillful patient assessment;



- the ability to identify patient complaint, symptoms and presentation with the appropriate patient treatments;
- mastering clinical skill competency associated with emergent patient treatments;
- the ability to formulate a patient chart and provide oral report to the medical command;
- mastering the indications, contraindications and side effects of all NJ DOH MICU 8:40 regulated procedures and pharmaceutical agents;
- mastering roles and responsibilities as outlined in the NJ DOH MICU Regulation 8:40 law;
- proficiency in all National Curriculum standards;
- Obtain a grade of 75 or greater.

Program Entrance Requirements:

- All students of the UCC paramedic program must have hospital sponsorship from an approved NJ Department of Health Mobile Intensive Care Unit hospital. This sponsorship allows students a clinical rotation site once the didactic portion of the program is completed;
- Current New Jersey EMT-B and CPR certification;
- Basic skill proficiency or approval by the program director;
- MAT 022 or approval by the program director;
- A minimum of 9 General Education credits which includes successful completion of ENG 101.

RECOMMENDED SEQUENCE

COURSE#	COURSE	LEC.	LAB	Cr.
FALL SEMESTER				
PMD 106	Paramedic I	7		7
PMD 107	Paramedic Procedures I	6		6
SPRING SEMESTER				
PMD 108	Paramedic II	10		10
PMD 109	Paramedic Procedures II	9		9

NOTE:

- Courses must be taken together and in the order listed.
- Upon successful completion of the program, students complete a clinical rotation at their sponsoring hospital.

WHERE YOU CAN GO FROM HERE

The Paramedic Program is intended for participants who are interested in helping and treating patients to the highest level of care outside of the hospital. The program is approved and sanctioned by the New Jersey Department of Health Office of Emergency Medicine.

PROGRAMMING

CERTIFICATE

The Programming Certificate Program is designed to meet the needs of those students who have decided to specialize in programming. These students should be able to communicate well with others. They need to know the intricacies of programming in various programming languages. They need to know the commonalities of languages. Programmers should be logical, ethical, and knowledgeable about societal issues.

The specific objectives of this program are that the graduate must be able to demonstrate:

- the ability to communicate effectively with others;
- the ability to work well as a member of a team;
- the ability to work independently;
- an aptitude for programming;
- problem solving and critical thinking skills;
- an understanding of the ethical and social issues involved in computing.



AFTER UCC

Graduates will possess knowledge in various programming languages, and they can either work in the field, return for additional college coursework, or earn a college degree.

RECOMMENDED SEQUENCE

COURSE#	COURSE	LEC.	LAB	Cr.
CSC 101	Computer Algorithms	2	3	3
CSC 102	Data Structures	2	2	3
CIS 202	Systems Analysis and Design	3	1	3

CHOOSE TWO OF THE FOLLOWING:

CIS 130	Introductory Visual Basic	2	2	3
CIS 132	Intermediate Visual Basic	2	2	3
CIS 101	Programming Applications Development I	3	1	3
CIS 201	Programming Applications Development II	3	1	3
CIS 106	Java Programming	2	2	3

Prerequisites for required courses must be successfully completed prior to registering for courses.



PUBLIC POLICY

CERTIFICATE

Issues of war, peace and terrorism have profoundly touched the lives of all Americans. Students are provided with an intellectual foundation upon which they can start to build their understanding of these and other issues. This comprehensive certificate offers the student a solid foundation in politics and history accompanied by the study of related areas. Students can incrementally begin earning an Associates degree in Liberal Studies or one of the other Associate degree programs and may start to prepare for careers in government service, law or teaching.



Graduates receiving this certificate must be able to demonstrate:

- an understanding of historical forces that shape the nation;
- a comprehensive understanding of American political institutions, processes, and the formulation of public policies;
- an understanding of bureaucracy, leadership and creation of public policies;
- an appreciation of the impact particular public policies have on the quality of American life;
- an ability to recognize, analyze and assess the ethical dimensions of policies; and
- the ability to communicate effectively.

WHERE YOU CAN GO FROM HERE

Holders of this certificate may apply for entry-level positions in the Federal Government. They are prepared to continue their education at Union County College in the Liberal Studies program or one of the Associate degree programs. Students who earn their Associates degree can transfer to a four-year college or university

RECOMMENDED SEQUENCE

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
CIS 100	Intro to Computer Applications*	2	2	3
COM101	Mass Communications or			
ENG 128	The Dynamics of Communication or			
ENG 129	Public Speaking	3		3
ENG 101	English Composition I	3	1	3
GOV 201	American Government & Politics	3		3
MAT 117	Intro to Mathematical Ideas or Higher level mathematics	3-4		3-4
				15-16

SECOND SEMESTER

CRJ 101	Intro to Criminal Justice	3		3
GOV 202	American National Government or			
GOV 204	Public Administration or			
GOV 207	International Politics	3		3
HIS 202	United States History Since 1865	3		3
ECO 201	Principles of Economics I or			
PHI 210	Ethics	3		3
Elective**		3		3-4
				15-16

*Requires Keyboarding Skills

** It is suggested students choose electives from the following list:

BIO 103	Biology of People and the Environment	3	3	4
BUS 105	Organization & Management	3		3
HIS 201	United States History to 1865	3		3
PSY 101	General Psychology	3		3
SOC 101	Principles of Sociology	3		3
URS 101	Intro to Urban Studies	3		3

WEBMASTER

CERTIFICATE

The Web Master Certificate Program is designed to meet the needs of those students who have decided to specialize in web development. These students should be able to communicate well with others. They should be knowledgeable about the current innovations and development within the area of web programming and design.

The specific objectives of this program are that the graduate must be able to demonstrate:

- the ability to communicate effectively with others;
- the ability to work well as a member of a team;
- the ability to work independently;
- an awareness of the current capabilities of web design tools;
- an aptitude for designing well-planned web sites;
- an understanding of the basics of e-commerce;
- an understanding of the ethical and social issues involved in computing.



AFTER UCC

Graduates will have a strong knowledge of the current innovations and development within the area of web programming and design.

RECOMMENDED SEQUENCE

COURSE#	COURSE	LEC.	LAB	Cr.
CIS 120	The Internet	2	2	3
CIS 122	Web Page Development	2	2	3
CIS 124	Web and Multimedia	2	2	3
CIS 126	E-Commerce Fundamentals	2	2	3

CHOOSE ONE OF THE FOLLOWING:

CIS 106	Java Programming	2	2	3
CIS 130	Introductory Visual Basic	2	2	3
CIS 205	Data Communications & Networks	3	1	3



GENERAL EDUCATION REQUIREMENTS IN ALL PROGRAMS

Programs leading to the Associate in Arts, Associate in Science, and Associate in Applied Science include a distribution of General Education courses in the categories of:

1. Communications (courses enhancing facility in the English Language);
2. Mathematics and Science (courses enhancing mathematical and scientific conceptual understanding and application, including knowledge of computers);
3. Social Sciences (courses enhancing social awareness, including social, economic, and political problems, and the responsibilities of citizenship in an interdependent world);
4. Humanities (courses in literary, philosophical, foreign language, historic, aesthetic, or other humanistic studies enhancing understanding and transmitting values of one's own culture as well as other cultures).

The General Education requirements vary according to the degree program. A.A. Programs require 45 general education credits; A.S. Programs require 30; A.A.S. Programs require 20. No more than 16 hours in one discipline (e.g., English, Chemistry, Psychology, History) may be counted toward the general education requirement for each degree.

Certificate Programs require 6, preferably 9, General Education/credit hours including one Communications course. Diploma Programs require 10 General Education credit hours.

GENERAL EDUCATION CATEGORIES

COMMUNICATION

- COM 102** Reporting and News Writing
COM 202 Advanced Reporting and News Reporting
ENG 101-102 English Composition I-II
ENG 111 English Composition for Speakers of Other Languages I
ENG 122 Introductory Technical and Business Writing
ENG 128 The Dynamics of Communication
ENG 129 Public Speaking
ENG 214 The Technician as Writer
ENG 215 Creative Writing

MATHEMATICS, SCIENCE AND TECHNOLOGY

- ADM 213** Word I
AST 101 Introductory Astronomy
AST 102 Astronomy
BIO 100 Natural History of New Jersey
BIO 101 Intro to Biology
BIO 102 Human Biology
BIO 103 Biology of People and the Environment
BIO 104 A Survey of the Animal Kingdom
BIO 105-106 Anatomy and Physiology I-II
BIO 107 Decisions for Wellness
BIO 108 Microbiology
BIO 109 Nutrition
BIO 111 The Biology of the Organism
BIO 112 Cell Biology
BIO 113 Plants and People
BIO 114 General Horticulture
BIO 115 The Seed Plants

- BIO 116** The Plant Kingdom
BIO 118 Biology of Women
BIO 119 Fundamentals of Microbiology
BIO 204 Marine Biology
BIO 206 Bacteriology
BIO 208 Ecology
BIO 230 Western Science: Its Development
BIO 270-279 Topics in Biology
CIS 100 Intro to Computer Applications
CIS 101 Intro to Information Systems
CIS 102 Applications Program Development I
CIS 106 Java Programming
CIS 115 Excel



- CIS 116** Access
CIS 117 PowerPoint
CIS 120 The Internet
CIS 122 Web Page Development
CIS 124 Web and Multimedia
CIS 126 E-Commerce Fundamentals
CIS 130 Introductory Visual Basic
CIS 201 Application Development II
CIS 202 Structured Systems Analysis
CIS 204 Database Management
CIS 205 Data Communications and Networks
CSC 100 Computer Programming Fundamentals
CSC 101 Computer Algorithms
CSC 102 Data Structures

CSC 115 Intro to Computer Programming

CSC 121 Assembly Language I

CSC 126 Intro to Operating Systems

CSC 231 Computer Organization & Architecture

CHE 101-102 Chemistry I-II

CHE 105 Chemistry-Health Sciences

CHE 106 Consumer and Environmental Chemistry

CHE 108 Principals of Nutrition

CHE 111-112 General Chemistry I-II

CHE 113 Principals of Inorganic Chemistry

CHE 114 Principals of Organic Chemistry and Biochemistry

CHE 211-212 Organic Chemistry I-II

EGG 201 Engineering Mechanics (Statics)

EGG 202 Engineering Mechanics (Dynamics)

GEY 101 Physical Geology

GEY 102 Historical Geology

MAT 117 An Intro to Mathematical Ideas

MAT 119 Algebra

MAT 125 Survey of Special Topics in Mathematics

MAT 126 Mathematics for Management and Social Sciences

MAT 127 Elementary Statistics

MAT 130 Women in Mathematics and Science

MAT 143-144 Elementary Mathematical Analysis I-II

MAT 146 Brief Calculus with Applications

MAT 171-172 Unified Calculus I-II

MAT 246 Business Statistical Analysis

MAT 265 Linear Algebra

MAT 267 Discrete Mathematics

MAT 271 Unified Calculus III

MAT 272 Differential Equations

MAT 280-299 Projects in Mathematics

ADM 213 Word I

PED 101 Concepts of Adult Fitness

PED 107 Decisions for Wellness

PED 110 Beginning Golf

PED 290 Independent Study in Fitness and Wellness

PHY All credit level Physics courses

SOCIAL SCIENCE

BUS 101 Intro to Contemporary Business

BUS 105 Organization and Management

BUS 201-202 Business Law I-II

CRJ 101 Intro to Criminal Justice

ECO 201-202 Principals of Economics I-II



ECO 205 Money and Banking

ECO 207 Urban Economics

ECO 209 The International Economy

EDU 205 Educational Psychology

EDU 208 Current Issues in Education

GOV All credit level Government courses

HUD 107 Deafness and Human Behavior

PSY All credit level Psychology courses

URS 101 Intro to Urban Studies

SOC All credit level Sociology courses

WMS 101 Intro to Women's Studies

HUMANITIES

ARC 101-102 Architectural Design I-II

BIO 230 Western Science: Its Development

COM 101 Mass Communications

COM 109 Intro to Film Study

COM 201 Issues in Mass Media



COM 209 The Evolution of Film

ENG 112 English Composition for Speakers of Other Languages II

ENG 205-206 English Literature I-II

ENG 207-208 American Literature I-II

ENG 216 Contemporary Literature

ENG 217-218 Literature and the Arts I-II

ENG 220 Drama as Literature

ENG 227-228 Black American Literature I-II

ENG 235 Intro to Shakespeare

ENG 245-246 Women in Literature I-II

ENG 270-289 Themes in Literature

FIA All credit level Fine Arts courses

FRE All credit level French courses

GER All credit level German courses

HIS All credit level History courses

HUG 101 Multidisciplinary Perspectives on Aging

ITA All credit level Italian courses

Mod Lang All credit level Modern Languages courses

PHI All credit level Philosophy courses

SPA All credit level Spanish courses

MULTICULTURAL PERSPECTIVE

The College recognizes and respects the diversity of its student body. All faculty are encouraged to attend conferences and workshops to increase their sensitivity to intercultural issues and to integrate into their courses an awareness of the contributions that people of diverse backgrounds have made to each field of knowledge.

GENERAL EDUCATION REQUIREMENTS IN ALL PROGRAMS cont'd

DIVERSITY COURSES

The College is committed to the offering of culturally diverse courses and courses of study in its transfer-oriented programs. The faculty of Union County College believes that diversity in its offerings can only enhance the exchange of ideas, understanding of beliefs and widening of perspective implicit in the notion of a Liberal Education. A course which satisfies the diversity requirement should enable students to:

- Recognize needs and concerns common to culturally diverse peoples;
- Recognize contributions made to society by people from various nations and cultures;
- Recognize and explain the consequences of prejudicial and discriminatory attitudes and actions;
- Recognize why an understanding of diversity is particularly necessary in American society;
- Recognize that cultural practices relate to the geographical and historical conditions from which they arose.

The menu of courses which satisfy the diversity requirement is subject to continual review and revision, current courses are:

ASL 101	American Sign Language I
ASL 102	American Sign Language II
BIO 113	Plants and People
BIO 118	Biology of Women
COM 201	Issues in Mass Media
COM 209	The Evolution of Film
ENG 209	World Literature I
ENG 210	World Literature II
ENG 227	African American Literature I
ENG 228	African American Literature II
ENG 245	Women in Literature I
ENG 246	Women in Literature II
FIA 105	Music Appreciation
FIA 108	Appreciation of Art
FIA 111	History of Art I
FIA 112	History of Art II
FIA 117	Music in the Twentieth Century
GOV 201	American Government & Politics
GOV 202	American National Government
GOV 203	Urban Government and Politics
GOV 207	International Politics
GOV 215	Women and American Politics
GOV 216	Women and the Justice System
HIS 103	Intro to World History I
HIS 104	Intro to World History II



HIS 105	Afro-American History I
HIS 106	Afro-American History II
HIS 201	United States History To 1865
HUG 101	Multidisciplinary Perspectives on Aging
IDH 104	Culture, Diversity and Healthcare
MAT 130	Women in Mathematics and Science
PHI 209	Social Justice
PSY 212	Psychology of Aging
PSY 218	Psychology of Women
SOC 206	Minorities in American Life
SOC 219	Women and Work
URS 101	Intro to Urban Studies
WMS 101	Intro to Women's Studies

LEARNING FROM A DISTANCE

DISTANCE EDUCATION is a way for students to take courses at flexible times and in convenient ways, often without even coming to campus. Union County College uses a wide spectrum of technologies to offer distance education courses. These include Telecourses taught through videotapes, Campus Web courses & Online courses. These delivery systems allow students to earn college credit without sacrificing education quality.



All distance education courses are the equivalent of their traditional on-campus counterparts. They cover the same subject matter, carry the same credit, and are taught by highly qualified UCC faculty. Distance education courses are available fall, winter, spring, and summer sessions. These courses may be applied to a UCC degree or certificate, taken as electives, or for general interest or professional development.

Regardless of the delivery mode, students taking distance education courses have ready access to their instructor by phone, fax, E-mail, and through scheduled office hours.

TELECOURSES allow students to learn and study at home. Most course content is on videotape. Students lease these tapes and correlate them to printed materials. For some telecourses, instructors may schedule periodic class meetings.

ONLINE COURSES require that students use personal computers and Internet connections to access the course. Some online courses may require students to obtain specific software. Attendance on campus is not usually required; however, the classes are structured with definite beginning and ending dates, assignment due dates, and test dates. Some courses may require students to take proctored tests at selected sites. Faculty and students engage in educational activities using resources which may include E-mail, textbooks, electronic bulletin boards, World Wide Web, and other materials. Some courses may require electronic chat room participation. Many course activities may be completed without being connected to the Internet. Because of the unique delivery of online courses, students who repeat a course are strongly advised against taking that course online.



CAMPUS WEB COURSES

require that students spend approximately half of the instructional time on campus, and the remainder of instruction will be provided online.

NEW JERSEY VIRTUAL COMMUNITY COLLEGE CONSORTIUM

Additional courses are available to students through the New Jersey Virtual Community College Consortium (NJVCCC) through which students can register for courses not regularly offered at UCC. All of the NJVCCC courses are provided by distance learning, either on-line or by telecourse. Though these courses are being provided by another educational institution, grades and credits become part of the student's Union County College transcript, and, if applicable will count toward program and graduation requirements. A full listing of NJVCCC courses hosted by UCC each semester is available at www.njvccc.cc.nj.us.



YOUR GUIDE TO UCC'S
COURSE DESCRIPTIONS

SUBJECT	CODE	PG	SUBJECT	CODE	PG
Accounting	ACC	113	Health Studies, Interdisciplinary	IDH	167
Administrative Support	ADM	113	Health Information Technology	HIT	163
American Sign Language & Deaf Studies	ASL	118	History	HIS	161
	HUD	164	Hospitality Management	FHR	151
	HUS	166	Human Services	HUS	166
Architecture	ARC	117	Institute for Intensive English	ESL	149
Astronomy	AST	120	Interdisciplinary Studies	HUM	165
Biology	BIO	120		IDS	167
Business	BUS	125		UCC	199
Chemistry	CHE	127	Interpreting Spoken Language	INT	169
Chinese	CHN	129	Italian	ITA	169
Civil Construction/ Engineering Technology	CIT	133	Library Science	LIS	172
Communications	COM	135	Manufacturing Engineering Technology	CIM	130
Computer Information Systems	CIS	131	Massage Therapy	MST	179
Computer Science/Data Processing	CSC	138	Mathematics	MAT	173
Criminal Justice	CRJ	137	Mechanical Engineering Technology	MET	176
Deaf-Blind Interpreting	DBI	139	Medical Laboratory Technology	UML	
Dental Assisting	UDA	199	Modern Languages, see	CHN	129
	UDC	199		FRE	156
Dental Hygiene	URC	202		GER	159
	UDH	200		ITA	169
Economics	ECO	140		SPA	197
Education	EDU	140	Nuclear Medicine	NMT	181
Electrology	ELG	144		RNT	196
Electronics/Electromechanical Technology	EET	141	Nursing Muhlenburg	NURM	185
Emergency Health Science	EHS	143	Nursing, Practical	PNU	189
Emergency Medical Technician	EMT	145	Nursing, Trinitas	NURE	182
Engineering	EGG	142	Oceanography	OCE	187
English	ENG	145	Paralegal Studies	LGL	169
English as a Second Language	ESL	149	Paramedic	PMD	189
Fine Arts	FIA	151	Philosophy	PHI	187
Fire Science Technology	FST	156	Physical Education	PED	187
Food Industry Marketing & Management	FHR	151	Physical Therapist Assistant	PTA	193
	FIM	155	Physics	PHY	188
	FMG	155	Practical Nursing	PNU	189
French	FRE	156	Psychology	PSY	192
Game Design Development	GDP	158	Psychosocial Rehabilitation	PSRT	191
Geology	GEY	159		UPR	202
Geography	GEO	159	Radiation Therapy	CLET	135
Gerontology	HUG	165		CLPT	135
German	GER	159		MRAT	177
Government	GOV	159	Radiology	RADM	195
Health care	EHS	143	Respiratory Care	URC	202
			Sociology	SOC	197
			Urban Studies	URS	203
			Women's Studies	WMS	204

COURSE NUMBERING

THE COURSE NUMBER SYSTEM IS:

000-099 Institutional Credit. Does not meet graduation requirements and will not transfer to four-year colleges.

100-199 Freshman Courses

200-299 Sophomore Courses

ACC 103 ACCOUNTING I

Theory of debit and credit, the purpose and use of a balance sheet, income statement, controlling accounting accounts, subsidiary ledgers, and special journals. Description of negotiable instruments, worksheets, depreciation methods, accounting for accruals and deferrals, and accounting for inventories. Financial Accounting Theory. Equivalent course may be substituted. See Departmental Chair. Prerequisite: ENG 088. 4 lecture hours per week. 4 credit hours.

ACC 104 ACCOUNTING II

A continuation of ACC 103. Topics include accounting for current liabilities, investment, preparation, interpretation and evaluation of financial statements and reports, comparison of corporation and partnership accounting. Managerial Accounting. Prerequisite: ACC 103 or the equivalent. See Departmental Chair. 4 lecture hours per week. 4 credit hours.

ACC 203 INTERMEDIATE ACCOUNTING I

Application of accounting theory to classification of assets, liabilities, equity, fixed assets. Accounting for intangible assets, consigned inventory and cash management included. FASB oriented. Prerequisite: ACC 104 or the equivalent. 4 lecture hours per week. 4 credit hours.

ACC 204 INTERMEDIATE ACCOUNTING II

Continuation of Intermediate Accounting I with an analytical approach to statements of income, retained earnings, and changes in financial position; influences of federal taxation on financial reporting, consolidation and branch accounting. FASB oriented. Prerequisite: ACC 203. 4 lecture hours per week. 4 credit hours.

ACC 205 COST ACCOUNTING

Theory and concepts applied to accounting for costs of manufacturing operations: methods of controlling and costing material inventory, procedures for charging labor and overhead costs to production; production data and flow; job order and process cost cycles; planning flexible budgets and standard cost variance analysis. Prerequisite: ACC 104 or equivalent. 4 lecture hours per week. 4 credit hours.

ACC 210 MICROCOMPUTERS IN ACCOUNTING

The study and development of skills in the application of accounting and financial functions on the microcomputer. The course will provide the student with hands-on experience in various accounting software applications and spreadsheet use. Prerequisite: ACC 104 and familiarity with the IBM-PC. 2 lecture and 2 laboratory hours per week. 3 credit hours.

ACC 211 FEDERAL TAXES I

A study of Internal Revenue codes commonly used by individuals and small businesses for returns, rates, credits, gross income inclusions, gains and losses, bases, dividends, deductions, preparation of individual returns. Prerequisite: ACC 103 or equivalent. Course open to all majors. 4 lecture hours per week. 4 credit hours.

ACC 212 FEDERAL TAXES II

A continuation of ACC 211 with emphasis on partnerships and corporations, estates and trusts. Social Security taxes and Federal Estate tax complement subject matter covered. Prerequisite: ACC 211. 2 lecture and 1 laboratory hour per week. 2 credit hours.

ACC 285 SPECIAL TOPICS IN ACCOUNTING

Topics of current interest in accounting. Course content arranged to satisfy particular needs and interests of student. Credit by arrangement.

ACC 290 CO-OP EDUCATION EXPERIENCE

An externship of approximately 200 hours in an accounting position with a local business or industry, with or without compensation. If an externship cannot be arranged, a term project on or off campus will be assigned. A weekly seminar on campus is included. An elective may be substituted. This course is open only to matriculated students in the A.A.S. degree accounting program. Prerequisite: ACC 203 or the equivalent or arrangement with the accounting coordinator. 10 lecture hours and 200 externship hours. 3 credit hours.

ACC 295 INDEPENDENT STUDY

A special research or development project in accounting for the advanced student with individual needs. Prerequisite: GPA of at least 3.0. Credit by arrangement.



ADM 100 NOTETAKING (SUPERWRITE)

This introductory course will help students in every discipline learn to take good notes. The students are taught the SuperWrite system. Students will learn how to read and write notes. This course is ideal for anyone who needs to take better notes either in class or on the job. This course is open to all majors; however, it is not intended as a transfer course. 3 lecture hours. 3 credit hours.

**ADM 101 KEYBOARDING
FOR THE COMPUTER I**

This course is designed for those who plan to use a computer for personal and professional purposes. Students learn the alphabetic, numeric, and symbol keys, including the ten-key pad on PCs. The basic skills needed for document formatting are taught. Reports, letters, and memoranda are introduced. This course is open to all majors. 1 lecture hour and 2 laboratory hours per week. 2 credit hours.

**ADM 102 KEYBOARDING
FOR THE COMPUTER II**

This course is a continuation of Keyboarding for the Computer (ADM 101) where proper keyboarding techniques and computer literacy were stressed. This course begins with production work, while continuing to stress the importance of proper techniques. Topics include: tables, rough-draft reports, bulleted and numbered lists, business and personal letters, reports with footnotes and endnotes, bibliographies, and employment papers. Prerequisite: ADM 101 or Challenge Examination or permission from ADM Coordinator/Business Department Chairman. 1 lecture hour and 2 laboratory hours per week. 2 credit hours.

**ADM 103 SHORTHAND I
(SUPERWRITE)**

Students are introduced to a shorthand system (SuperWrite). Major topics include the presentation of alphabetic strokes, brief forms, and principles. Reading and writing practice on the material presented together with frequent writing drills. A Challenge Examination is available for students who have successfully completed previous shorthand courses using this shorthand system. Prerequisite: ENG 088. 3 lecture and 2 laboratory hours per week. 4 credit hours.

**ADM 104 SHORTHAND II
(SUPERWRITE)**

Reinforcement by intensive review of all shorthand devices previously introduced while developing speed skills. Students are introduced to transcription skills with emphasis on spelling, punctuation, vocabulary, and grammar. Further development of speed skills combined with frequent reviews to reinforce grasp on the theory and principles. Prerequisites: ADM 103 or successful completion of ADM 103 Challenge Examination, ADM 102. 3 lecture and 3 laboratory hours per week. 4 credit hours.

**ADM 122 INTERMEDIATE
KEYBOARDING (WORD)**

Continued development of speed and accuracy, building skill in business correspondence, tabulations, reports, manuscripts, business forms, technical and statistical reports, and employment papers using Word. Students must attain a minimum speed of 40 words a minute. Prerequisite: ADM 102 or permission from ADM Coordinator/Business Department Chair. A Challenge Examination is available for students who have successfully completed previous keyboarding courses on personal computers. 2 lecture hours and 3 laboratory hours per week. 3 credit hours.

**ADM 123 ADVANCED
KEYBOARDING (WORD)**

This course stresses the development of keyboarding skills to a professional level using Word. Development of the ability to sustain high speed and accuracy on production work is also included. Content provides experience in specialized areas such as accounting, legal, medical, and technical offices. Students must attain a minimum speed of 50 words a minute. Prerequisite ADM 122 or successful completion of the ADM 122 Challenge Examination. 2 lecture and 3 laboratory hours per week. 3 credit hours.

ADM 131 ADMINISTRATIVE PROCEDURES

This course discusses general administrative professional orientation, including the role of a professional secretary. This course develops self-confidence and a professional attitude. Lectures and discussions on records management, mail processing, travel arrangements, business meetings, communications responsibilities, financial assistance, investments, human relations in the office, grooming, and career advancement. Development of business vocabulary and business communications skills is included. Also, an overview of employment search activities such as the resume and interview process is covered. 3 lecture hours per week. 3 credit hours.

ADM 135 PROOFREADING AND EDITING SKILLS

This course addresses the complaint of many office supervisors that employees lack business communication skills. Major emphasis is on developing technical editing skills needed for successful employment in a business environment. Students apply these skills to typical business correspondence. This course is ideal for students who are planning a career where communication skills are required. Prerequisites: ENG 088 and ENG 098. 3 lecture hours per week. 3 credit hours.

ADM 140 CUSTOMER SERVICE

This course covers the many aspects of customer service skills needed in business and industry. The course examines the people, practices, and events that are needed in the field of customer service. The course includes an overview of customer service, discusses specific skills and related topics, and provides insight into future customer service trends and issues. This course is beneficial to anyone in business and industry that provide products, services, or information. Prerequisites: ENG 089 and ENG 099. 3 lecture hours per week. 3 credit hours.

ADM 141 MEDICAL OFFICE PROCEDURES I

This course introduces the medical assistant to the administrative portion of the medical assisting curriculum. It is a study of the techniques associated with patient reception, appointment scheduling, processing mail, management of telephone calls, medical record-keeping, maintenance of medical office files, and composing and processing medical correspondence. 2 lecture and 2 laboratory hours per week. 3 credit hours.

ADM 142 MEDICAL OFFICE PROCEDURE II

This course continues the study of the administrative aspects of a medical practice, beginning with professional fees and the establishment of credit to an overview of management responsibilities. CPT-4 and ICD-9 coding will be introduced and the student will code insurance forms. Prerequisite: ADM 141 or permission from ADM Coordinator. 2 lecture and 2 laboratory hours per week. 3 credit hours.

ADM 200 FUNDAMENTALS OF HEALTH CARE COMPUTING I

This course is designed to introduce the student to computer hardware, software, and firmware with emphasis on the potential computer applications that they are likely to encounter. It is an introductory course for non-computer majors, which provides basic proficiency in the essentials of computer technology and its applications in administration and allied health care settings. The main course components include computer systems, computer processing, databases, spreadsheets, and graphics. The topics cover both generic and health-discipline specific applications and exercises. Through demonstrations and class exercises, the course provides ample opportunities for hands-on experiences on commonly used microcomputer applications. It is recommended that students who have never taken a keyboarding course take ADM 101 prior to taking this course. 2 lecture and 2 laboratory hours per week. 3 credit hours.

ADM 201 COMPUTER INFORMATION SYSTEMS AND HEALTH CARE MANAGEMENT

This course is designed to introduce the student to the use of computers in health care management. It introduces management applications that the students are likely to encounter in their career. Students review medical procedures from keyboarding and transcription through business management to patient records and general hospital administration, and examine the role of computers in the simplification of these tasks. 2 lecture and 2 laboratory hours per week. 3 credit hours.

ADM 213 WORD I

This course introduces the student to the use of a current version of Microsoft Word. Topics include: creating/editing documents, formatting, speller/thesaurus/grammar checker, widow/orphan control, headers/footers, multiple windows, find/replace, Auto text, templates, Wizards, borders, Microsoft Draw, WordArt, tables, columns, styles, and more. Materials covered in this course helps prepare the student for the Microsoft Office Specialist (MOS) certificate in Word. This course is also listed as CIS 113. Prerequisite: ADM 101 or higher level keyboarding course or permission from ADM Coordinator/Business Department Chairman. 2 lecture and 3 laboratory hours per week. 3 credit hours.



ADM 214 WORD II

This course is a continuation of Word I, ADM 213/CIS 113. Students learn how to insert pictures and text boxes, create newsletters, control text flow, create and modify styles, insert and edit fields, use electronic forms, use mail merge, create and manage macros, use advanced table-formatting features, create charts and import data into charts, add/edit footnotes and endnotes, create and navigate outlines, create master documents, create and track comments, create hyperlinks and more. Material covered in this course helps prepare the student for the expert level of the Microsoft Office Specialist (MOS) certificate in Word. Prerequisite: ADM 213/CIS 113 and ADM 101 or higher level keyboarding course or permission from ADM Coordinator/Business Department Chair. 2 lecture and 3 laboratory hours. 3 credit hours.

ADM 215 EXCEL I

This course introduces the student to the use of a current version of Microsoft Excel. Students build a worksheet from a beginning level to an intermediate level. Topics include creating and formatting a worksheet, enhancing a worksheet, absolute and relative referencing, functions, advanced formulas, dates, times, financial functions, templates, multiple worksheets/files charts, and more. Material covered in this course helps prepare the student for the Microsoft Office Specialist in Excel. This course is also listed as CIS 115. 2 lecture and 2 laboratory hours per week. 3 credits.

ADM 216 ACCESS

This course introduces the student to the use of a current version of Microsoft Access. Students create a database and learn to maximize productivity. Some of the topics included are creating a database, organizing and retrieving data, working with tables, creating queries and advanced queries, building forms, reports and data access pages, automating and extending Access, entering criteria, sorting, structure, validation, referential integrity, the World Wide Web, Hyperlink fields, briefcase replication, wizards, and macros. Materials covered in this course helps prepare the student for the Microsoft Office Specialist (MOS) certificate in Access. This course is also listed as CIS 116. 2 lecture and 2 laboratory hours per week. 3 credit hours.

ADM 217 POWERPOINT

Students learn how to create professional-looking presentations using a current version of Microsoft PowerPoint. Some of the topics covered are creating and editing, table slides, templates, ClipArt Gallery, autosshapes, drawing tools, organization charts, enhancing presentations, slide time, running an automatic slide show, selecting color schemes, captions, integrating Word and Excel, creating presentations for a Web page, AutoContent, Hyperlinks, and more. Material covered in this course helps prepare the student for the Microsoft Office Specialist (MOS) certificate in PowerPoint. 2 lecture and 2 laboratory hours per week. 3 credit hours.

ADM 220 MANAGEMENT OF THE AUTOMATED OFFICE

This course provides the student with the history of the traditional office and an evolutionary perspective of its current transition to full automation. The student will examine administrative functions, replications, records management, communications, and ergonomics, as well as develop an understanding of the information processing flow. Technical and practical considerations are discussed to achieve the integrated office. Management's role and involvement are discussed in the process of transition to the automated office. 3 lecture hours per week. 3 credit hours.

ADM 290 CO-OP EDUCATION EXPERIENCE

An externship of approximately 200 hours in the office of local business firms. If an externship cannot be arranged, a term project on or off campus will be assigned. Co-op should be taken in student's last year of program. An elective may be substituted for this course. Prerequisite: Permission from Office Administration Coordinator/Business Department Chair. 1 lecture and 20 laboratory hours per week. 3 credit hours.



ARC 101 ARCHITECTURAL DESIGN I

An introduction to architectural design through the examination of basic principles and elements of design. Human needs such as personal identity, privacy, community, and security, are studied and applied to a series of problems in spatial organization. 3 lecture and 5 laboratory hours per week. 5 credit hours.

ARC 102 ARCHITECTURAL DESIGN II

A further exploration of architectural design issues, examining the impact of the environment on physical and mental health, user-groups and their responses to environments, and architectural design as the expression of social values, cultural patterns, and historical heritage. Execution and criticism of a series of related problems. Prerequisite: ARC 101. 3 lecture and 5 laboratory hours per week. 5 credit hours.

ARC 105 INTRODUCTION TO ARCHITECTURE AND CULTURE

An introductory study of architecture and design issues that impact society. This course is for students interested in pursuing studies in architecture and design fields such as landscape architecture, interior design, urban planning, historic preservation, real estate, and facilities design. It explores how architecture and environments impact and shape our lives and communities. The cultural and historic basis for design will be studied and technical aspects of architecture will be introduced through examples. Prerequisite: ENG 088. 3 lecture hours per week. 3 credit hours.

ARC 205 ARCHITECTURAL CAD DESIGN

This course covers the basics of computer technology and software applications used in the architectural profession to design, produce, present, and communicate with other design professionals and clients. Using computer-assisted design, students will perform a series of design assignments. Applications of computer tools in resolving design issues during the various phases of a project will be discussed and utilized. The course will build on the elements of architectural theory and practice. Execution and project reviews will be conducted in a group format. Prerequisite: ARC 102 or permission of instructor. 2 lecture hours and 3 laboratory hours per week. 3 credit hours.

ARC 206 ARCHITECTURAL 3D DESIGN

This course will expose students to the more advanced aspects of computer assisted design of architecture and design projects. The course will require the completion of projects involving the resolution of a more complex set of design issues. Students will be using advanced applications of Computer Aided Design (CAD) and three-dimensional modeling to construct a design project and presentation layout from start to finish. Execution and project reviews will be conducted in a group format. Prerequisite: ARC 205 or permission of instructor. 2 lecture hours and 3 laboratory hours per week. 3 credit hours.

ARC 210 PORTFOLIO DEVELOPMENT AND PRESENTATION METHODS

This course will provide the architecture and design student with the foundation for the preparation of a design portfolio. The individual is encouraged to organize a comprehensive assemblage of work. Various techniques of media images are demonstrated and applied to the student's individual design projects. This portfolio typically is used for transfer evaluations and work/job interviews. Prerequisite: ARC 102 or Permission of the instructor. 1 lecture hour and 3 laboratory hours per week. 2 credit hours.

ARC 216 MATERIALS AND CONSTRUCTION I

Introduction to wood and masonry construction. Weights and strengths of various materials are given and actual shapes and sizes are drafted to produce wall sections of typical wood frames. Building code requirements are also introduced. Knowledge is applied to projects produced in Architectural Design course. 1 lecture and 2 laboratory hours per week. 2 credit hours.

ARC 217 MATERIALS AND CONSTRUCTION II

Introduction to steel and concrete construction, roofing, glazing, and cladding systems for buildings. Prerequisite: ARC 216. 1 lecture and 2 laboratory hours per week. 2 credit hours.



ARC 224 STRUCTURAL DESIGN I

An introduction to the basic principles of static equilibrium of external forces in engineered systems, including the use of free-body diagrams, the location of centroids, and calculation of area moments of inertia. Practical problems involving simple structures, trusses, frames, etc., are analyzed, preparing the student for further study of the strength of materials, structural analysis, and design. Special topics for architectural applications. Calculations use units from both the Customary English System and the International System (Metric). Prerequisite: MAT 143. 3 lecture hours per week. 3 credit hours.

ARC 225 STRUCTURAL DESIGN II

An introduction to the basic principles of strength of materials, structural analysis, and design. Practical problems involving internal stresses and strains, properties of structural materials, shear and moment diagrams, beam stresses and deflections, structural behavior of beams, columns, and connections. It provides the student with the basic knowledge and skills required to analyze and design basic structural elements, including wood and steel tension members, beams, columns, and simple structural connections. Calculations use units from both the Customary English System and International System (Metric). Prerequisites: ARC 224. 3 lecture and 1 laboratory hour per week. 3 credit hours.

ARC 295 INDEPENDENT STUDY

A special research and/or design project in Architecture for the advanced student with individual needs. Prerequisite: Permission of the instructor. 1 to 3 credits by arrangement.

**ASL 101 AMERICAN SIGN LANGUAGE I**

This course is designed to introduce the student to American Sign Language, the visual-gestural language of Deaf persons, and Deaf Culture and to develop receptive and expressive communication skills with incorporation of visual-gestural techniques, ASL vocabulary, basic rules of grammar, syntax and some cultural features of the Deaf community. Prerequisite: Students whose records and tests indicate the need for review in the fundamentals of language will be assigned to Communication skills courses. Students placed in English 098-099 and English 088-089 must demonstrate college level competence before enrolling in American Sign Language & Deaf Studies Program. Co-requisite: ASL 102. 3-1/2 lecture hours and 1-1/2 laboratory hours per week. 4 credit hours.

ASL 102 VISUAL-GESTURAL COMMUNICATION

A skill development course of the visual-gestural aspects of communication, which are an integral part of American Sign Language. Emphasis will be on visual and kinetic readiness via visual/gestural communication techniques, visual discrimination and memory exercises; also kinetic movements and exercises of body, face, arms and hands and their relationship to space. Spatialization and its relationship to the signer's perspective will be developed through exercises. Emphasis will be on mastering visual and kinetic skills related to visual-gestural communication and on non-manual behaviors of American Sign Language. Students will do survey and/or research of similarities and differences between American Deaf Culture visual-gestural/non-manual aspects. Prerequisite: Students whose records and tests indicate the need for review in the fundamentals of language will be assigned to Communication skills courses. Students placed in English 098-099 and English 088-089 must demonstrate college level competence before enrolling in American Sign Language & Deaf Studies Program. Co-requisite: ASL 101. 1-1/2 lecture hours and 1-1/2 class laboratory hours per week. 2 credit hours.

ASL 103 AMERICAN SIGN LANGUAGE II

This course is a continuation of ASL I (ASL 101). It is designed to develop further competency in ASL above the basic level. Students will be exposed to ASL transcription symbols, sentence types, non-manual behaviors, time, pronominalization, subjects and objects, classifiers, locatives, pluralization, temporal and distributional aspects. Some information about the Deaf Community and its culture will also be featured throughout the course. Receptive and expressive sign vocabulary will be featured through class activities leading to basic conversational skills in ASL. Students will be required to interact with the Deaf Community in real-life situations, thereby enhancing various aspects of ASL and Deaf Culture (25 hours). Prerequisite: ASL 101 & 102. Co-requisite: ASL 104 and HUD 104. 3 1/2 lecture hours and 1 1/2 class laboratory hours per week. 4 credit hours.

ASL 104 ASL CLASSIFIERS

This course will expand on understanding the principles of Classifiers, an integral part of American Sign Language (ASL), knowing how to identify different types of ASL classifiers, and application of ASL Classifiers. Students will learn and apply the three types of classifiers, learn and use the representative classifiers (animate and inanimate), descriptive classifiers (size-and-shape, extent, perimeter, and pattern and texture), and instrumental classifiers. This course will provide hands-on experiences & skill building activities needed for appropriate classifier use applied to complex descriptions and images. Eye gaze, role shifting, spatial referencing and appropriate use of ASL classifiers in storytelling and different genres will also be covered. Prerequisite: ASL 101 & 102. Co-requisites: ASL 103 and HUD 104. 2 lecture hours per week. 2 credit hours.

ASL 201 AMERICAN SIGN LANGUAGE III

This course is a continuation of ASL II. It is designed to develop further competencies in ASL, expanding the emphasis on ASL grammar and vocabulary development as well as Deaf Community and Culture. Students will experience additional in-depth receptive and expressive skill development. Development of advanced signing skills includes topicalization of health and drug use. Dialogue, short stories, narratives, and conversations will be featured throughout the course. Prerequisite: ASL 103 & ASL 104, ENG 101, ENG 102. 2 lecture hours and 3 class laboratory hours per week. Co-requisite: ASL 205. 3 credit hours.

ASL 202 AMERICAN SIGN LANGUAGE IV

This course teaches students advanced conversational and discourse skills in American Sign Language and the finer aspects of ASL and American Deaf Culture. Styles /Registers in ASL will be discussed on an advanced level. Development of advanced signing skills include topicalization of medical and sexual behavior, current events, dialogues, sign variants/differences, etc. Text and discourse analysis are incorporated throughout the course. Prerequisite: ASL 201 and ASL 205. 2 lecture hours and 3 class laboratory hours per week. 3 credit hours.

ASL 203 AMERICAN SIGN LANGUAGE V

ASL Vocabulary and usage of ASL are expanded through storytelling and folklore in ASL. Students will enhance skills in storytelling and re-telling which incorporate the dynamics of ASL and its finer aspects. Students learn how to participate in group discussions, to speculate and make analogies, give instructions, and express feelings and intentions as well as applications of ASL discourse styles and registers and rehearse appropriate social/language responses. Prerequisite: ASL 202, ASL 205, and ASL 208. 2 lecture hours and 3 class laboratory hours per week. 3 credit hours.

ASL 205 LINGUISTICS OF AMERICAN SIGN LANGUAGE

Conducted in American Sign Language (ASL), the course is descriptive and data-oriented rather than theoretical. The course gives an historical overview of social and linguistic events that influence transformations in ASL; introduction to structure and organizational properties of ASL as identified through linguistic research; review of other languages that share similar organizational principles; discussion of semantic hierarchy and framework for analyzing semantic properties of ASL. Prerequisite: ASL 103. Co-requisite: ASL 201 or permission of instructor. 3 lecture hours per week. 3 credit hours.

ASL 208 AMERICAN DEAF CULTURE AND HISTORY

This course is a study of the status of Deaf people as both a linguistic and cultural minority group. This course is designed for individuals who may or may not have had prior experience with Deaf people. The course raises questions on the nature of sign language and its varieties, the education of Deaf people, the historical treatment of Deafness, the sociological and cultural make up of Deaf individuals, and the nature of ASL Literature and poetry. The course also covers the history of Deaf people in the Western World, with emphasis on the American Deaf Community and its relation to hearing society. Prerequisite: ASL 201 and ASL 205. Co-requisite: ASL 202. 3 lecture hours per week. 3 credit hours.

ASL 210 AMERICAN SIGN LANGUAGE AND DEAF LITERATURE

Students read and discuss in ASL various genres of American Sign Language and Deaf literature. Students develop basic skills in ASL Literature. Concentration is on the work of current, recognized narrators in both literacy and face-to-face storytelling traditions. Prerequisite: ASL 203. 3 lecture hours per week. 3 credit hours.



ASL 270-289 SELECTED TOPICS IN AMERICAN SIGN LANGUAGE STUDIES

Studies of selected events, issues, topics or skill development in American Sign Language Studies will be offered on the basis of timely concerns, community interests, students' requests, etc. These courses are of a continuation of professional skill development and of a timely or specialized nature and can be best offered not on a regularly scheduled basis, but periodically. Individual topics will be announced prior to registration; one, two, or three credits will be offered depending on the nature of the course format and class hours. 1, 2, or 3 credit hours.



AST 101 ASTRONOMY OF THE SOLAR SYSTEM

This course describes the nature and motions of all the solar objects: sun, planets, satellites, asteroids, comets, and meteoroids. Astronomical discoveries are put into historical perspective. Experiments are carried out in the William Miller Sperry Observatory to determine the mass and size of the earth, the planets, and the sun. Distances and motions are calculated using only high school math. The use of sky charts and coordinate systems is presented. Open book and open notes for quizzes and exams encourage the practical application of the studied material. 3 lecture and 3 laboratory hours per week. 4 credit hours.

AST 102 ASTRONOMY BEYOND THE SOLAR SYSTEM

This course builds upon several concepts of AST 101, but that course is not a prerequisite. Studied are the distances and motions of the stars. The brightness and spectral (color) classes of stars are investigated along with the life history of typical stars. Experiments to determine stellar distances are performed. In the William Miller Sperry Observatory, the spectroscope is employed to examine spectral lines of stellar gases. These lines tell us the stuff of which stars are made. Star clusters from open to globular to galactic are studied. In doing the experiments using basic math, students discover anew what great astronomers of the past have found. Open book and open notes for quizzes and exams encourage the practical application of the studied material. 3 lecture and 3 laboratory hours per week. 4 credit hours.



BIO 002 INTRODUCTION TO ANATOMY AND PHYSIOLOGY

An introduction to the fundamental concepts of anatomy and physiology. The course is designed for students who have had no high school biology or who need a review before enrolling in BIO 105-106 or BIO 110. This course will not fulfill a laboratory science requirement. 3 lecture hours per week. 3 credit hours.

BIO 004 INTRODUCTION TO THE HUMAN BODY

An introduction to the fundamental concepts of anatomy and physiology. The course is designed for students who have passed BIO 102 or BIO 110, and are now seeking enrollment in the Professional Nursing program. This course will be conducted online, with additional assignments to be completed at the Academic Learning Center. This course will not fulfill a laboratory science requirement. Prerequisites: BIO 102 or BIO 110. Lecture is online format. 2 credit hours.

BIO 100 NATURAL HISTORY OF NEW JERSEY

A study of New Jersey's natural history including the flora, fauna, geology, and a historical background of its diverse environments. The lectures focus on man's role in changing the face of New Jersey. Two field trips, to be held on weekends, will explore selected regions of the state. This course is intended to serve as an elective and not to fulfill a lab science requirement. 3 lecture hours per week. 3 credit hours.

BIO 101 INTRODUCTION TO BIOLOGY

A one-semester introductory course for non-Biology majors covering the basics of life science including scientific method, origin of life, the cell, energy processes, genetics, evolution, and other topics which can be applied to everyday living. 3 lecture and 3 laboratory hours per week. 4 credit hours.

BIO 102 HUMAN BIOLOGY

This course is an introduction to human anatomy and physiology for the non-biology major. It is designed to develop an appreciation for the structure and functions of the human body; to point out the relationship of body systems to health and disease; and to emphasize human biology as it relates to everyday living experiences. Not open to students who have taken BIO 105-106. 3 lecture and 3 laboratory hours per week. 4 credit hours.

BIO 103 BIOLOGY OF PEOPLE AND THE ENVIRONMENT

A study of ecological principles and their application to man's role in the biosphere. Population growth, technology, and the social dilemmas posed are viewed in terms of their contributions toward the degradation of environmental quality. The future of man and how he will cope with these problems is discussed. One or more all day field trips on weekends may be required in lieu of some regularly scheduled sessions. Not open to students who have taken BIO 208. 3 lecture and 3 laboratory hours per week. 4 credit hours.

BIO 104 A SURVEY OF THE ANIMAL KINGDOM

A one-semester survey of the principal types of animals for the non-biology major. The course will cover the structure, function, and ecology of the major animal groups. Emphasis will be placed on the importance and interaction of these animals to humans. 3 lecture and 3 laboratory hours per week. 4 credit hours.

BIO 105 ANATOMY AND PHYSIOLOGY I

The study of the organ systems from the perspective of their structure, processes, and regulation. The course specifically deals with cells, tissues, integument, skeletal system, muscular system, and nervous system. Prerequisite: High School Biology and/or Chemistry. 3 lecture and 3 laboratory hours per week. 4 credit hours.

BIO 106 ANATOMY AND PHYSIOLOGY II

A continuation of Anatomy and Physiology I intended to complete the required two-semester sequence. The course covers the following systems: endocrine, respiratory, circulatory, lymphatic, digestive, urinary, and reproductive. Prerequisite: BIO 105. 3 lecture and 3 laboratory hours per week. 4 credit hours.

BIO 107 DECISIONS FOR WELLNESS

A one semester course that focuses on wellness and several quality of life issues. The course will also discuss disease prevention and functioning optimally on a daily basis in order to enhance one's life now as well as in the future. There is no dissection required in this course. 3 lecture and 3 laboratory hours per week. 4 credit hours.

BIO 108 MICROBIOLOGY

A study of microbial life on earth including microbial cell biology, growth and metabolism, genetics, diversity and evolution, effects on the environment, and the interactions between microorganisms and higher forms of life. Emphasis will be placed on the relationship between microorganisms and humans and current efforts to track and control infectious diseases worldwide. Prerequisites: BIO 105 or one semester of college-level chemistry. Not open to students who have taken BIO 207. 3 lecture and 3 laboratory hours per week. 4 credit hours.

BIO 109 NUTRITION

This is an introductory course in nutrition. It is designed to provide the student with the chemistry and function of all essential nutrients. It will also discuss current ideas and thinking in nutrition as well as an introduction to methods of research in nutrition. Diseases associated with nutrients as well as those prevented by nutrients will be discussed. Prerequisites: BIO 101, 102, 105, or 112 or any introductory college chemistry courses. If a student has no science background, permission of the department Chair may be granted to highly motivated students. 3 lecture hours per week. 3 credit hours.

BIO 111 THE BIOLOGY OF THE ORGANISM

This course designed for biology majors is a basic introduction to the structure and function of representative types of plants and animals emphasizing the basic problems facing all multicellular organisms and the variety of solutions which have evolved. The course stresses the evolution of organ systems from simple to complex species. Pre-requirement for biology majors. 3 lecture and 3 laboratory hours per week. 4 credit hours.



BIO 112 CELL BIOLOGY

This course designed for biology majors focuses on the study of the cell as the basic unit of structure and function of all living organisms. The student is introduced to important hypotheses and concepts of modern cell biology including those relevant to molecular organization, organelle architecture and function, cellular activities, specialized cell models, origins of cellular life, and major techniques and methods of studying cells. Requirement for Biology majors. 3 lecture and 3 laboratory hours per week. 4 credit hours.

BIO 113 PLANTS, PEOPLE AND SOCIETY

Life on Earth, including humans, depends on green plants. The development of civilization has paralleled mankind's use and domestication of plants for food, fiber, medicine, fuel, and ornamentation. This course will study how, why, and where plants grow and the direct and indirect effects they have on diverse cultures around the world. Students will learn how the use of certain plants has shaped the modern world and the civilizations from which our societies have evolved. Emphasis will be placed on current events related to plant science and society, including, but not limited to, plants as sources of medicine and how plants can feed an ever-increasing human population. (Will not fulfill the lab science requirement.) 3 lecture hours per week. 3 credit hours.

BIO 114 GENERAL HORTICULTURE

An introduction to the basic principles of horticulture. Theories and methods of plant propagation, control of plant growth, pest management, and pruning are covered. Soils, mineral requirements, growing structures, and plant identification are investigated. One or more all day field trips on weekends may be required in lieu of some regularly scheduled lab sessions. 3 lecture and 3 laboratory hours per week. 4 credit hours.

BIO 115 THE SEED PLANTS

A thorough study of the dominant plant form on earth today - the seed plants. Emphasis is on the morphology and taxonomy of the major angiosperm families. Basic principles of plant physiology are investigated. Laboratory and field exercises. One or more all day field trips on weekends may be required in lieu of some regularly scheduled lab sessions. 3 lecture and 3 laboratory hours per week. 4 credit hours.

BIO 116 THE PLANT KINGDOM

A general systematic study of the plant kingdom from algae to flowering plants. The morphology and physiology of representative groups are studied. Emphasis is on the evolution of the plant kingdom. Laboratory and field exercises. One or more all day field trips on weekends may be required in lieu of some regularly scheduled lab sessions. 3 lecture and 3 laboratory hours per week. 4 credit hours.

BIO 118 INTRODUCTION TO THE BIOLOGY OF WOMEN

This course will present aspects of basic human biology that are unique to the female. This course will emphasize the female lifespan including sex cell formation, menopause, and aging. Topics relevant to women's health will also be discussed. Prerequisite: Completion of all English developmental courses. 3 lecture and 3 laboratory hours per week. 4 credit hours.

BIO 119 FUNDAMENTALS OF MICROBIOLOGY

This course is designed to be a survey of medically important microbes. It will include detection and control methodologies as well as human response to infection. This course will not fulfill a college laboratory science requirement. Permission of Department Chair required. 3 lecture hours per week for ten weeks and 3 laboratory hours per week for 4-5 weeks. 3 credits.

BIO 120 INTRODUCTION TO BIOLOGY

BIO 101 without the laboratory component. This course will not fulfill a college laboratory science requirement. Permission of Department Chair required. 3 lecture hours per week. 3 credit hours.

BIO 121 HUMAN BIOLOGY

BIO 102 without the laboratory component. This course will not fulfill a college laboratory science requirement. Permission of Department Chair required. 3 lecture hours per week. 3 credit hours.

BIO 122 BIOLOGY OF PEOPLE AND THE ENVIRONMENT

BIO 103 without the laboratory component. This course will not fulfill a college laboratory science requirement. Permission of Department Chair required. 3 lecture hours per week. 3 credit hours.

BIO 123 A SURVEY OF THE ANIMAL KINGDOM

BIO 104 without the laboratory component. This course will not fulfill a college laboratory science requirement. Permission of Department Chair required. 3 lecture hours per week. 3 credit hours.

BIO 124 ANATOMY AND PHYSIOLOGY I

BIO 105 without the laboratory component. This course will not fulfill a college laboratory science requirement. Permission of Department Chair required. 3 lecture hours per week. 3 credit hours.

BIO 125 ANATOMY AND PHYSIOLOGY II

BIO 106 without the laboratory component. This course will not fulfill a college laboratory science requirement. Permission of Department Chair required. 3 lecture hours per week. 3 credit hours.

BIO 126 MICROBIOLOGY

BIO 108 without the laboratory component. This course will not fulfill a college laboratory science requirement. Permission of Department Chair required. 3 lecture hours per week. 3 credit hours.

BIO 127 THE BIOLOGY OF THE ORGANISM

BIO 111 without the laboratory component. This course will not fulfill a college laboratory science requirement. Permission of Department Chair required. 3 lecture hours per week. 3 credit hours.

BIO 128 CELL BIOLOGY

BIO 112 without the laboratory component. This course will not fulfill a college laboratory science requirement. Permission of Department Chair required. 3 lecture hours per week. 3 credit hours.

BIO 150 HANDS-ON BIOLOGY FOR TEACHERS

This course focuses on the State of New Jersey's Core Curriculum Content Standards in Science. This course emphasizes the biological topics taught in grades K-12. The course is designed for current and future teachers. Each topic presented will have hands-on activities that can readily be used in the classroom along with background information. This course is intended to serve as an elective and will not fulfill a laboratory science requirement. 3 lecture/laboratory hours per week, 3 credit hours.

BIO 151 PLANT PROPAGATION

A study of the theories, principles and techniques involved in the asexual and sexual propagation of horticulturally important plants. The topics of cuttage, grafting, layering, dividing, micro-propagation, seeding, and plant breeding will be investigated along with the environmental conditions necessary for successful propagation. 3 lecture and 3 laboratory hours per week. 4 credit hours.

BIO 152 PEST MANAGEMENT

The morphology, physiology, identification, and control of plant pests including viruses, bacteria, fungi, weeds, nematodes and the arthropods. Emphasis will be placed on the characteristics and safe use of pesticides and other means of pest control. 3 lecture and 3 laboratory hours per week. 4 credit hours.

BIO 153 PLANT IDENTIFICATION

An intensive study of the trees, shrubs, vines, herbaceous plants, and greenhouse plants of horticultural importance found in New Jersey. In addition to identification, the growth forms, textures, colors, and habitat requirements will be covered. One or more all day field trips on weekends may be required in lieu of some regularly scheduled lab sessions. 3 lecture and 3 laboratory hours per week. 4 credit hours.

BIO 155 GREENHOUSE MANAGEMENT

The management practices necessary for the successful production of greenhouse crops will be studied with an emphasis on the practical operation of greenhouses. Structural designs of greenhouses, equipment, environmental influences, fertilizers, pest control, production costs, and crop scheduling will be covered in relation to the management of the major greenhouse crops. One or more all day field trips on weekends may be required in lieu of some regularly scheduled lab sessions. 3 class and 3 laboratory hours per week. 4 credit hours.

BIO 202 BIOTECHNOLOGY

A one semester course for science students. The course will cover scientific principles and techniques in Biotechnology; products and applications in agriculture, microbiology, food and human health; and ethical, legal and social implications of Biotechnology. Pre-requisites: a college-level biology course or permission of the instructor or Department Chair. 3 lecture and 3 laboratory hours per week. 4 credit hours.

BIO 204 MARINE BIOLOGY

An introduction to the marine environment. Special attention centers on the ways representative species are adapted to various saltwater habitats and on the formation of marine communities. Human relationships with the ocean and the importance of the ocean to life on earth are stressed. In addition, marine legislation and dangers to the marine environment from an environmental view are discussed. One or more all day field trips on weekends may be required in lieu of some regularly scheduled lab sessions. 3 lecture and 3 laboratory hours per week. 4 credit hours.

BIO 208 ECOLOGY

An introduction to basic ecological principles and techniques. Biotic interrelationships are emphasized in the study of aquatic and terrestrial communities. The laboratory combines field investigations with experimental studies. One or more all day field trips on weekends may be required in lieu of some regularly scheduled lab sessions. 3 lecture and 3 laboratory hours per week. 4 credit hours.

BIO 230 WESTERN SCIENCE: ITS DEVELOPMENT

A study of the development of human ideas about the physical world. The course will follow the changes in the Western outlook toward the world and the role of humankind in that world. Topics will also concentrate on the development and growth of the ideas which have formed the modern natural sciences. Prerequisites: HIS 101 and 102 or permission of the instructor. (This course will not fulfill a laboratory science requirement.) 3 lecture hours per week. 3 credit hours.

BIO 241 CLINICAL MICROBIOLOGY

A specialized course for students with a need for knowledge of clinical microbiological procedures. Emphasis is on clinical specimen collection, specimen preparation, and identification procedures for aerobic and anaerobic bacteria, fungi, and parasites. Prerequisite: BIO 108. 3 lecture hours and 3 laboratory hours per week. 4 credit hours.

BIO 266 GENERAL PATHOLOGY

A study of the basic concepts of pathological processes in the body system. Diseases are studied with emphasis on structural and functional interrelationships of etiology, pathogenesis, diagnosis, treatment, and prognosis of disease processes. Prerequisites: BIO 105 and BIO 106. 3 lecture hours per week. 3 credit hours.

BIO 270-279 TOPICS IN BIOLOGY

Studies of selected topics, issues or events in biology. The subjects covered will demonstrate that biology is a dynamic, ever-changing, and expanding scientific domain that impacts on the lives of all individuals. These courses will allow for in-depth studies of current and specific aspects of biology as well as general topics that will appeal to a broad segment of the community. Individual topics are announced prior to registration. These courses do not fulfill a laboratory science requirement. 3 credit hours.

BIO 290 INDEPENDENT STUDY IN BIOLOGY

A one-semester course to cover an approved in-depth exploration of some aspect of Biology. The course is intended to provide the students with an opportunity to expand his or her knowledge in one area beyond that which is presently offered in current Biology courses. This course will not fulfill a laboratory science requirement and requires the recommendation and permission of the Department Chair and instructor as a prerequisite for registration. It is recommended that the student have at least two semesters of college Biology. Prerequisites: BIO 111 and 112 or permission of Department Chair. Course may be taken for 1, 2, 3 or 4 credits.



BUS 101 INTRODUCTION TO CONTEMPORARY BUSINESS

Overview of all phases of business, including ownership, marketing, personnel, finance, managerial controls, and the relationship of government and business. The relationship of business to the social and economic environment in which it operates. Practical orientation and emphasis on relationships between business concepts and potential business careers. 3 lecture hours per week. 3 credit hours.

BUS 102 INTRODUCTION TO INSURANCE

This course will provide basic information for people who want to pursue a career in the financial services industry, especially for people who want to enter the insurance field. An overview of the history, culture, and future of insurance will be explored, including the role of insurance in our society. Career directions and necessary skills will be addressed. 3 lecture hours per week. 3 credit hours.

BUS 105 ORGANIZATION AND MANAGEMENT

Background and development of the structure and functions of modern business; principles of organization and management; functions of major departments of the modern industrial enterprise and analysis of their interrelations and interdependence; methods of executive control and applications of basic principles. Prerequisite: ENG 088. 3 lecture hours per week. 3 credit hours.

BUS 107 PERSONNEL MANAGEMENT

Techniques of personnel administration; job analysis and evaluation; recruitment, interviewing, placement, training, and education; employee health and safety, benefits and morale; public and community relations; personnel research, audits, and reviews. Prerequisites: ENG 088, ENG 098. 3 lecture hours per week. 3 credit hours.

BUS 115 PERSONAL FINANCE

This course is designed to give a practical introduction to personal finance. It addresses realistic ways to manage personal assets effectively. Topics covered include the economy; working, planning, and budgeting; sensible shopping and spending; avoiding fraud and swindles; buying, insuring and financing a car; buying and selling a home; housing costs and regulations; renting a home; banking services; credit and borrowing; investments in stocks, mutual funds and real estate; life, health and income insurance; retirement and estate planning; and income tax. 3 lecture hours per week. 3 credit hours.

BUS 136 RETAILING TECHNIQUES

Function of the retailer. Retail establishments and the changes in merchandising. Management techniques, organizations, effective control, and profitable operation. Prerequisite: ENG 088. 3 lecture hours per week. 3 credit hours.

BUS 137 SALESMANSHIP

A study of the effective methods of retail selling, application of psychological and persuasive selling techniques. Students prepare and conduct sales presentations on an individual and group basis. Prerequisite: ENG 088. 3 lecture hours per week. 3 credit hours.

BUS 138 RETAIL BUYING AND MERCHANDISING

This course introduces the student to the organizational structure at the retail buying and merchandising function. The various techniques for coordinating an effective buying and merchandise program are studied. 3 lecture hours per week. 3 credit hours.

BUS 200 SMALL BUSINESS MANAGEMENT

A course designed to introduce the student to the principles of small business management and the functions of planning, organizing, financing, staffing, marketing, and directing a small business enterprise. 3 lecture hours per week. 3 credit hours.

BUS 201 BUSINESS LAW I

Legal aspects of common business transactions, including judicial procedures, contracts, torts, crimes, and agency law. Prerequisite: ENG 088. 3 lecture hours per week. 3 credit hours.

BUS 202 BUSINESS LAW II

Uniform commercial code and legal aspects of sales, negotiable instruments, corporations, partnerships, real and personal property, government regulation of business, bankruptcy, insurance, and inheritance. Prerequisite: ENG 088. 3 lecture hours per week. 3 credit hours.

BUS 203 PRINCIPLES OF ADVERTISING

A fundamental survey of the field of advertising as it relates to the total marketing program. Major topics covered include: advertising as a part of the marketing program, behavioral considerations in advertising, advertising campaigns, strategy and production, and the legal implications in advertising. This course also focuses on the functional interrelationships of advertisers, agencies, and media. Prerequisites: BUS 208, ENG 088. 3 lecture hours per week. 3 credit hours.

BUS 205 PRINCIPLES OF FINANCE

A study of the fundamental concepts of finance. This includes financial analysis; planning and control; working capital management including bank and non-bank financing; time value of money; capital. Prerequisites: ACC 103 and ECO 201. 3 lecture hours per week. 3 credit hours.



BUS 207 LABOR MANAGEMENT RELATIONS

This course will provide an introduction to the origins, operations, and impact of labor and management relationships in the United States as well as some major international relationships. It will allow an analysis of the environment, economy, and organizational structures of various industrialized countries. The current collective bargaining process as well as the newer alternative methods of management/labor relations will be studied. Prerequisite: BUS 105 or equivalent. 3 lecture hours per week. 3 credit hours.

BUS 208 PRINCIPLES OF MARKETING

Description and evaluations of procedures and institutions involved in the movement of goods from producers to consumers. Analysis of procedures and practices of wholesalers and retailers in relation to the current economic, social, and political environment. 3 lecture hours per week. 3 credit hours.

BUS 209 INTRODUCTION TO GLOBAL BUSINESS

An introduction to the theory and practice of international business: theory of international trade, international investment and monetary system, international marketing, management, finance, foreign exchange markets, importing, exporting trade agreements, NAFTA, GATT, trade barriers and the EU. The impact of cultural, economic and political environments on international business will provide preparation with a global focus. 3 lecture hours per week. 3 credit hours.

BUS 210 MARKETING AND THE GLOBAL ENVIRONMENT

Examines the historical foundation of cultural, political, and economic diversity and its effect on marketing. Discusses the forces related to the emergence of the global market place: trade liberalization 1. advances in communications, 2. the role of mass media in introducing the ideas and the lifestyles of other cultures, and 3. transport technology. Prerequisites: ENG 088, ENG 098, BUS 101, BUS 208. 3 lecture hours per week. 3 credit hours.

BUS 223 INTRODUCTION TO ENTREPRENEURISM

This course will give the student a clear and comprehensive introduction to business skills and principles, which support independent business innovation, ownership, and management. This course departs from the traditional small business management courses by incorporating new themes and principles of management more appropriate to self-conceived and self-directed small business innovators striving to survive in a dynamic global and technological business environment. It will address topics such as the innovative process, creating markets, technology support of innovation, and how a small business can establish a market presence and compete successfully against large competitors. 3 lecture hours per week. 3 credit hours.

BUS 290 CO-OP EDUCATION EXPERIENCE

An externship of approximately 200 hours in a business position with a local business or industry with or without compensation. If an externship cannot be arranged, a term project on or off campus will be assigned. A weekly seminar on campus is included. An elective may be substituted. This course is open to only matriculated students in the A.A.S. degree business program. Co-op should be taken in student's last year of program. By arrangement with the Departmental Chair. Ten lecture hours and 200 externship hours. 3 credit hours.

BUS 295 SPECIAL PROJECTS

Students integrate their knowledge of marketing and apply and analyze theoretical concepts through involvement in marketing projects designed to test their critical thinking abilities. Prerequisite: ENG 088, BUS 136, and BUS 208. 3 credit hours.



CHE 005 INTRODUCTORY CHEMISTRY

Introduction to the fundamental concepts of chemistry for students who have had no high school chemistry or who need a review before enrolling in CHE 105, CHE 111 or CHE 113. Prerequisites: ENG 099, MAT 022 or equivalent. 3 lecture and 3 laboratory hours per week. 4 credit hours.

CHE 025 INTRODUCTORY CHEMISTRY

CHE 005 without the laboratory component. Students will attend same lecture and be responsible for the same assignments (excluding laboratory) as students in CHE 005. This course will not fulfill a college laboratory science requirement. Primarily intended for students who have completed the laboratory requirement at another institution. Permission of the Department Chair required. Prerequisite: CHE 005. 3 lecture hours per week. 3 credit hours.

CHE 101 CHEMISTRY I

The chemical view of matter, atomic structure and theory, chemical bonding, stoichiometry, oxidation reduction and solutions. This course is primarily intended for non-science majors. Students who have not had high school chemistry must take CHE 101. Students offering high school chemistry as an entrance requirement may take CHE 102 as a first course. Prerequisites: ENG 099, MAT 022 or equivalent. 3 lecture and 3 laboratory hours per week. 4 credit hours.

CHE 102 CHEMISTRY II

A continuation of CHE 101, covering nuclear chemistry, organic chemistry, biochemistry, current topics related to pollution and the environment. Prerequisites: CHE 101 or High School Chemistry, ENG 099, MAT 022. 3 lecture and 3 laboratory hours per week. 4 credit hours.

CHE 105 CHEMISTRY-HEALTH SCIENCES

Study of selected topics in general, organic, and biological chemistry oriented toward health sciences. Students pursuing the Bachelor's Degree in Nursing should take CHE 113/114 instead of CHE 105. Prerequisites: High school chemistry and a satisfactory grade on the chemistry placement test or CHE 005, high school algebra or MAT 022, ENG 099. 3 lecture and 3 laboratory hours per week. 4 credit hours.

CHE 106 CONSUMER AND ENVIRONMENTAL CHEMISTRY

A one-semester course primarily for non-science majors presenting as many basic concepts of chemistry as are necessary to convey an appreciative understanding of the nature of the science and its relation to life. The focus is on the interrelationships among atoms, molecules, man and his chemical products. Topics are chosen from the areas of air and water pollution, consumer products, chemical action of the body, drugs and medicines, combustion, and chemical energy. This course is offered online. Prerequisite: ENG 099. 3 lecture and 3 laboratory hours per week. 4 credit hours.

CHE 111 GENERAL CHEMISTRY I

Atomic structure, chemical bonding, molecular geometry, stoichiometry, states of matter, and solutions. Primarily for science and engineering students. Prerequisites: high school chemistry; a satisfactory grade on the chemistry placement test or CHE 005; ENG 099; MAT 119 or higher. 3 lecture and 3 laboratory hours per week. 4 credit hours.

CHE 112 GENERAL CHEMISTRY II

A continuation of CHE 111, covering electro-chemistry, descriptive chemistry of the elements, thermodynamics, chemical kinetics, chemical equilibrium, acids and bases, ionic equilibrium, complex compounds, and nuclear chemistry. Laboratory includes qualitative analysis. Prerequisite: CHE 111 or permission of the instructor. 3 lecture and 3 laboratory hours per week. 4 credit hours.

CHE 113 PRINCIPLES OF INORGANIC CHEMISTRY

Topics in general and inorganic chemistry including elements, compounds, mixtures, atomic structure, gas laws, solutions, acids and bases, radioactivity. This course and CHE 114 serve as a one-year sequence for students seeking a B.S. in nursing or a health-related field. Prerequisites: high school chemistry or CHE 005; high school algebra or MAT 022; ENG 099. 3 lecture and 3 laboratory hours per week. 4 credit hours.

CHE 114 PRINCIPLES OF ORGANIC CHEMISTRY AND BIOCHEMISTRY

Introduction to the basic concepts of organic and biochemistry oriented toward the health-related fields. Topics include nomenclature, reactions, and stereochemistry of the major classes of organic compounds; the basic chemistry of carbohydrates, proteins, lipids, nucleic acids, and enzymes in relationship to the metabolism of living organisms. Prerequisite: CHE 101, CHE 111, or CHE 113. 3 lecture and 3 laboratory hours per week. 4 credit hours.



CHE 120 CHEMISTRY I

CHE 101 but without the laboratory component. Students will attend the same lectures and be responsible for the same assignments (excluding laboratory) as students in the course with laboratory. Students must meet the same prerequisites. This course will not fulfill a college laboratory science requirement. Primarily intended for students who have completed the laboratory requirement at another institution. Permission of the Department Chair required. 3 lecture hours per week. 3 credit hours.

CHE 121 CHEMISTRY II

CHE 102 but without the laboratory component. Students will attend the same lectures and be responsible for the same assignments (excluding laboratory) as students in the course with laboratory. Students must meet the same prerequisites. This course will not fulfill a college laboratory science requirement. Primarily intended for students who have completed the laboratory requirement at another institution. Permission of the Department Chair required. 3 lecture hours per week. 3 credit hours.

CHE 122 CHEMISTRY-HEALTH SCIENCES

CHE 105 without the laboratory component. Students will attend the same lectures and be responsible for the same assignments (excluding laboratory) as students in the course with laboratory. Students must meet the same prerequisites. This course will not fulfill a college laboratory science requirement. Primarily intended for students who have completed the laboratory requirement at another institution. Permission of the Department Chair required. 3 lecture hours per week. 3 credit hours.

CHE 124 CONSUMER AND ENVIRONMENTAL CHEMISTRY

CHE 106 without the laboratory component. Students will attend the same lectures and be responsible for the same assignments (excluding laboratory) as students in the course with laboratory. Students must meet the same prerequisites. This course will not fulfill a college laboratory science requirement. Primarily intended for general interest and for students who have completed the laboratory at another institution. This course is offered online. Permission of the Department Chair required. 3 lecture hours per week. 3 credit hours.

CHE 125 GENERAL CHEMISTRY I

CHE 111 without the laboratory component. Students will attend the same lectures and be responsible for the same assignments (excluding laboratory) as students in the course with laboratory. Students must meet the same prerequisites. This course will not fulfill a college laboratory science requirement. Primarily intended for students who have completed the laboratory at another institution. Permission of the Department Chair required. 3 lecture hours per week. 3 credit hours.

CHE 126 GENERAL CHEMISTRY II

CHE 112 without the laboratory component. Students will attend the same lectures and be responsible for the same assignments (excluding laboratory) as students in the course with laboratory. Students must meet the same prerequisites. This course will not fulfill a college laboratory science requirement. Primarily intended for students who have completed the laboratory at another institution. Permission of the Department Chair required. 3 lecture hours per week. 3 credit hours.

CHE 127 PRINCIPLES OF INORGANIC CHEMISTRY

CHE 113 without the laboratory component. Students will attend the same lectures and be responsible for the same assignments (excluding laboratory) as students in the course with laboratory. Students must meet the same prerequisites. Primarily intended for students who have completed the laboratory at another institution. Permission of the Department Chair required. 3 lecture hours per week. 3 credit hours.

CHE 128 PRINCIPLES OF ORGANIC CHEMISTRY AND BIOCHEMISTRY CHEMISTRY

CHE 114 but without the laboratory component. Students will attend the same lectures and be responsible for the same assignments (excluding laboratory) as students in the course with laboratory. Students must meet the same prerequisites. This course will not fulfill a college laboratory science requirement. Primarily intended for students who have completed the laboratory at another institution. Permission of the Department Chair required. 3 lecture hours per week. 3 credit hours.

CHE 202 INSTRUMENTAL ANALYSIS

An introduction to the theory and application of instrumental methods of analysis. Areas covered include pH measurement, colorimetry, visible and infrared spectroscopy, polarography, atomic absorption, gas column, high pressure liquid and thin layer chromatography. Basic separation techniques of extraction and distillation; measurement of physical properties such as melting point, boiling point, specific rotation, and refractive index. Applications are made to energy and environmental problems and individual work is encouraged. Research Laboratory reports required, personal computers used for some calculation. Prerequisites: CHE 201 or permission of instructor. 2 lecture and 6 laboratory hours per week. 4 credit hours.

CHE 211 ORGANIC CHEMISTRY I

A study of the principal classes of aliphatic and aromatic compounds, types of reactions and reaction mechanisms, molecular orbital approach to bonding, and stereochemistry. The first semester of a two semester sequence. Prerequisite: CHE 112 or permission of the instructor. 3 lecture and 6 laboratory hours per week. 5 credit hours.

CHE 212 ORGANIC CHEMISTRY II

A continuation of the study of functional groups, reactions and reaction mechanisms, spectroscopic examination of organic compounds, introductory biochemistry. The second semester of a two-semester sequence. Prerequisite: CHE 211 or permission of the instructor. 3 lecture and 6 laboratory hours per week. 5 credit hours.

CHE 221 ORGANIC CHEMISTRY I

CHE 211 without the laboratory component. Students will attend the same lectures and be responsible for the same assignments (excluding laboratory) as students in the course with laboratory. Students must meet the same prerequisites. This course will not fulfill a college laboratory science requirement. Primarily intended for students who have completed the laboratory at another institution. Permission of the Department Chair required. 3 lecture hours per week. 3 credit hours.

CHE 222 ORGANIC CHEMISTRY II

CHE 212 without the laboratory component. Students will attend the same lectures and be responsible for the same assignments (excluding laboratory) as students in the course with laboratory. Students must meet the same prerequisites. This course will not fulfill a college laboratory science requirement. Primarily intended for students who have completed the laboratory at another institution. Permission of the Department Chair required. 3 lecture hours per week. 3 credit hours.

CHE 290 INDEPENDENT STUDY IN CHEMISTRY

A one-semester course to cover an approved in-depth exploration of some aspect of Chemistry. The course is intended to provide the students with an opportunity to expand his or her knowledge in one area beyond that which is presently offered in current chemistry courses. This course will not fulfill a laboratory science requirement and requires the recommendation of the instructor. It is recommended that the student have at least two semesters of college chemistry. Prerequisite: permission of Department Chair. Course may be taken for 1, 2, 3 or 4 credits.



CHN 101 BEGINNING MANDARIN CHINESE I

This course will provide solid foundation in pronunciation, grammar, and proficiency in the four language skills of understanding, speaking, reading and writing. Video-audio and Web-based materials will be used to supplement regular classroom instruction. PowerPoint program will be used to present class materials. This course is NOT open to native speakers of Mandarin Chinese. Co-requisite: ENG 088. 3 lecture hours per week. 3 credit hours.



CHN 102 MANDARIN CHINESE II

CHN 102 is a continuation of CHN 101. This course will cover the equivalent of CHN 101. An emphasis in this course will be on building up vocabulary and sentence patterns. Students will be required to prepare and perform role-plays to carry out conversations in Mandarin Chinese on a range of topics and in real life situations that are readily understood by students. Students will be expected to understand, speak, read, and write all new words that appear from the textbook, workbook, character workbook, and the materials from other sources. Video-audio and Web-enhanced instruction will be used to supplement regular classroom instruction. PowerPoint program will be used to present class materials. This course is NOT open to native speakers of Mandarin Chinese. Prerequisite: CHN 101. 3 lecture hours per week. 3 credit hours.

CHN 111 INTERMEDIATE MANDARIN CHINESE I

This course is designed to review and consolidate the fundamentals that students have built in their beginning Mandarin Chinese courses. Students will continue to expand their repertoire of grammatical structures and to build up vocabulary. This course will develop more reading, writing, listening, and speaking skills so that students can apply Mandarin Chinese to good use in and beyond the classroom. Prerequisites: CHN 101, CHN 102 or 2 years high school Mandarin Chinese. Not generally open to native Mandarin Chinese speakers. 3 lecture hours per week. 3 credit hours.

CHN 112 INTERMEDIATE MANDARIN CHINESE II

This course is designed to review and consolidate the fundamentals that students have built in Beginning Mandarin Chinese courses and Intermediate Mandarin Chinese I. Students will continue to expand their repertoire of grammatical structures and to build up vocabulary. This course will develop more reading, writing, listening, and speaking skills so that students can apply Mandarin Chinese to good use in and beyond the classroom. Not generally open to native Mandarin Chinese speakers. Prerequisites: CHN 111 or 2 years high school Mandarin Chinese. 3 lecture hours per week. 3 credit hours.

**CIM 285 SPECIAL TOPICS IN MANUFACTURING ENGINEERING TECHNOLOGY**

Topics of current interest in manufacturing technology. Course content is arranged to satisfy the particular needs and interests of the students. Credit by arrangement.

CIM 290 CO-OP EDUCATION EXPERIENCE

A work externship comprising a minimum of 200 hours of employment related to manufacturing. Prerequisite: permission of the Coordinator. 3 credit hours.

CIM 295 INDEPENDENT STUDY

A special research or development project or a course not currently offered in the Manufacturing Engineering Technology Program. Reserved for the advanced student with individual needs. Credit by arrangement.



CIS 100 INTRODUCTION TO COMPUTER APPLICATIONS

This course introduces students to basic computer concepts. The course also focuses on a current version of Microsoft Office Professional. Students experience hands-on instruction in word processing, spreadsheets, databases, and professional presentations. This course prepares students to succeed in both college and the business world by enabling them to write reports, analyze and chart data, and prepare presentations. Prerequisite: ADM 101 or keyboarding skills, ENG 088, MAT 011. 2 lecture and 2 laboratory hours per week. 3 credit hours.

CIS 101 INTRODUCTION TO INFORMATION SYSTEMS

This course is an introduction to the many facets of computer information systems. The course provides an understanding of system concepts, information technology, and application software. It also introduces students to how information is used in organizations and how information technology enables improvement in quality and timeliness of information. It gives students the characteristics of professionals and of possible career paths. Topics include ethical and societal issues, organizing data and information, telecommunications and networks, e-commerce, and management information systems. With hands-on experience, the course supports the concept of problem solving with computers via applications and the Internet. Prerequisites: CIS 100, ENG 088, MAT 022. 2 lecture and 2 laboratory hours per week. 3 credit hours.

CIS 102 APPLICATIONS PROGRAM DEVELOPMENT I

A course designed to teach the student how to develop simple business applications in a procedural language. The student is introduced to the basic syntax of COBOL. Students learn how to construct a general solution using flowcharts. Prerequisite: CIS 101 or CSC 101. 3 lecture hours and 1 laboratory hour per week. 3 credit hours.

CIS 103 WINDOWS OPERATING SYSTEMS

This course introduces the student to an up-to-date version of a popular operating system, Microsoft Windows. The student will have "hands-on" experience using many of the features of Windows. Topics include: working with applications and documents, managing files, folders and disk, using Windows efficiently, using the control panel, using WordPad, creating graphics with Paint, and using other Windows accessories. 1 lecture and 1 laboratory hour per week. 1 credit hour.

CIS 106 JAVA PROGRAMMING

This course introduces the study of Sun Microsystems Java programming. It begins at the elementary level and continues with more detailed and practical knowledge. Students should have prior programming experience for successful completion of this course (especially C or C++). 2 lecture and 2 laboratory hours per week. 3 credit hours.

CIS 107 OPERATING SYSTEMS FOR HELP DESK

This course is a survey of today's leading operating systems. Students learn operating systems from both an end-user and administrative standpoint. Prerequisites: ENG 089, ENG 099. 3 lecture hours and 1 laboratory hour. 3 credits.

CIS 110 COMPUTER LITERACY

This course introduces students to a variety of computer topics including the history and evolution of computers, DOS and Windows, applications, ergonomics, networks, and the Internet. Corequisite: ADM 101 or equivalent. 1 lecture and 1 laboratory hour per week. 1 credit hour.

CIS 111 INTEGRATING TECHNOLOGY IN THE CURRICULUM

This course provides students with an in-depth knowledge of how to integrate technology into educational environments. Topics include the Internet, introduction to productivity software applications for educators, hardware, analysis of technology, integrating multimedia and education software applications, using digital equipment in the classroom, and creating curriculum pages. 2 lecture and 2 laboratory hours per week. 3 credit hours.

CIS 113 WORD I

This course introduces the student to the use of a current version of Microsoft Word. Topics include: creating/editing documents, formatting, speller/thesaurus/grammar checker, widow/orphan control, headers/footers, multiple windows, find/replace, Auto text, templates, Wizards, borders, Microsoft Draw, WordArt, tables, columns, styles, and more. Materials covered in this course helps prepare the student for the Microsoft Office Specialist (MOS) certificate in Word. This course is also listed as ADM 213. Prerequisite: ADM 101 or higher level keyboarding course or permission from ADM Coordinator/Business Department Chairman. 2 lecture and 3 laboratory hours per week. 3 credit hours.

CIS 115 EXCEL I

This course introduces the student to the use of a current version of Microsoft Excel. Students build a worksheet from a beginning level to an intermediate level. Topics include creating and formatting a worksheet, enhancing a worksheet, absolute and relative referencing, functions, advanced formulas, dates, times, financial functions, templates, multiple worksheets/files charts, and more. Material covered in this course helps prepare the student for the Microsoft Office Specialist in Excel. This course is also listed as ADM 215. 2 lecture and 2 laboratory hours per week. 3 credits.



CIS 116 ACCESS

This course introduces the student to the use of a current version of Microsoft Access. Students create a database and learn to maximize productivity. Some of the topics included are creating a database, organizing and retrieving data, working with tables, creating queries and advanced queries, building forms, reports and data access pages, automating and extending Access, entering criteria, sorting, structure, validation, referential integrity, the World Wide Web, Hyperlink fields, briefcase replication, wizards, and macros. Materials covered in this course helps prepare the student for the Microsoft Office Specialist (MOS) certificate in Access. This course is also listed as ADM 216. 2 lecture and 2 laboratory hours per week. 3 credit hours.

CIS 117 POWERPOINT

Students learn how to create professional-looking presentations using a current version of Microsoft PowerPoint. Some of the topics covered are creating and editing, table slides, templates, ClipArt Gallery, autosshapes, drawing tools, organization charts, enhancing presentations, slide time, running an automatic slide show, selecting color schemes, captions, integrating Word and Excel, creating presentations for a Web page, AutoContent, Hyperlinks, and more. Materials covered in this course helps prepare the student for the Microsoft Office Specialist (MOS) certificate in PowerPoint. 2 lecture and 2 laboratory hours per week. 3 credit hours.

CIS 120 THE INTERNET

This course is all about the Internet. Topics include background of the Internet, ethics and etiquette of the Web, protocols, basic UNIX commands, HTML, designing and creating for the World Wide Web. Students entering this course should have basic keyboarding skills, knowledge of computers and Windows. Prerequisite: ADM 101 or equivalent. 2 lecture and 2 laboratory hours per week. 3 credit hours.

CIS 121 HTML

This course is an in-depth study of HTML (HyperText Markup Language) and its use in creating Web pages. Students will learn to add functionality to Web pages using JavaScript and DHTML (Dynamic HTML). In addition, students will be taught the basics of XML (Extensible Markup Language). Prerequisite: CIS 120. 2 lecture and 2 laboratory hours per week. 3 credit hours.

CIS 122 WEB PAGE DEVELOPMENT

This course introduces students to web page development. Students learn elements of HTML, design, and a current version of Microsoft FrontPage. Topics include web page structures, tables, frames, forms and validation, multimedia web pages, and Java applets. Prerequisite: CIS 120. 2 lecture and 2 laboratory hours per week. 3 credit hours.

CIS 124 WEB AND MULTIMEDIA

This course introduces students to the web and multimedia. Students learn what multimedia is and why it is so important. They should be able to distinguish between appropriate and inappropriate uses of multimedia. Students learn practical applications as well as relevant trends and issues surrounding multimedia, such as copyright, privacy, and censorship. Prerequisite: CIS 120. 2 lecture and 2 laboratory hours per week. 3 credit hours.

CIS 126 E-COMMERCE FUNDAMENTALS

This course is a comprehensive introduction to the world of electronic commerce. It covers key technologies used in electronic commerce. Some of the topics discussed are: strategies for business-to-consumer, business-to-business electronic commerce, security, ethics, legal issues and more. Prerequisite: CIS 120. 2 lecture and 2 laboratory hours per week. 3 credit hours.

CIS 130 INTRODUCTORY VISUAL BASIC

This course is an introduction to object-oriented, event-driven programming and graphical user interfaces using Microsoft Visual Basic. The topics include building an application, working with controls, designing a VB form, changing properties, writing subroutines. Basic knowledge of computers and Windows is essential for successful completion of this course. 2 lecture and 2 laboratory hours per week. 3 credit hours.

CIS 132 INTERMEDIATE VISUAL BASIC

This course is a continuation of CIS 130. It involves learning the elements of good graphical interfaces and how to develop them using graphical programming languages. The design element includes windows, menus, dialog and other boxes, and the use of color and controls. Development includes customizing windows, using tools, and working with files. Prerequisite: CIS 130. 2 lecture and 2 laboratory hours per week. 3 credit hours.

CIS 140 HELP DESK CONCEPTS AND CUSTOMER SERVICE

This course provides an overview of the topics relevant to working at a help desk including customer service skills. Topics discussed in this course include: help desk concepts, roles and responsibilities, help desk operations, help desk processes and procedures, tools and technologies, performance measures, ergonomics, customer satisfaction, listening and communications skills, handling difficult customers, solving and preventing problems, and more. 3 lecture hours and 1 laboratory hour per week. 3 credit hours.

CIS 201 APPLICATIONS PROGRAM DEVELOPMENT II

This course is a continuation of the COBOL that was learned in CIS 102, emphasizing structured programming techniques in program design. Topics include: control break logic, batch transaction validation, table initializing and searching, interactive indexed file, file updating. Prerequisite: CIS 102. 3 lecture hours and 1 laboratory hour per week. 3 credit hours.

CIS 202 STRUCTURED SYSTEMS ANALYSIS AND DESIGN

This course is a general study of concepts related to information systems and the role of the systems analyst. Topics include: the systems development life cycle, feasibility study, data flow diagrams, data dictionaries, file, reports, and business forms. Prerequisite: CIS 201 or CSC 102 or permission of Coordinator. 3 lecture hours and 1 laboratory hour per week. 3 credit hours.

CIS 204 DATABASE MANAGEMENT

This course teaches the student about data base design; modeling concepts, symbols, and techniques; normalization; and form development. One of the leading database managers will be used to construct databases, screen, reports, queries, and data validation routines. Prerequisite: CIS 116 or ADM 216. 2 lecture and 2 laboratory hours per week. 3 credit hours.

CIS 205 DATA COMMUNICATIONS AND NETWORKS

This course teaches students the basics of business data communications and networks. It includes both recent data communications trends and fundamental concepts. Students are introduced to the many types of connections found within computer networks, the technologies necessary to connect computers and networks, and actions that occur when a data transmissions produces an error. Topics include: firewalls, network operating systems, telecommunications, and security. Prerequisite: CIS 101 or CIS 120. 3 lecture hours and 1 laboratory hour per week. 3 credit hours.

CIS 207 PC TROUBLESHOOTING AND REPAIR

This course provides students with a foundation of both PC hardware, software, and Internet concepts. The course also affords students a practical knowledge of baseline IT skills and technologies enabling students to solve basic PC problems. Prerequisite: CIS 107. 2 lecture and 2 laboratory hours. 3 credits.

CIS 210 PRINCIPLES OF INFORMATION SECURITY

This course introduces the student to the field of information security. It presents both the managerial and technical components of security. Students will learn about the legal, ethical and professional issues in Information Security. Other topics include logical and physical design for security, implementing security, and maintaining security. Prerequisites: ENG 089 and ENG 099. 3 lecture hours per week. 3 credit hours.



CIT 104 CONSTRUCTION MANAGEMENT

An introduction to the construction industry, including types of contracts and specifications, project planning and scheduling, construction materials, equipment, methods, and safety. 3 lecture hours per week. 3 credit hours.

CIT 108 SOIL MECHANICS

A study of soil as a construction material, including topics in soil tests and classifications, properties and behavior, site exploration and sampling, compaction, bearing capacity, foundations, and settlement. Common lab and field testing procedures are covered. Prerequisite: MAT 143. 2 lecture and 2 laboratory hours per week. 3 credit hours.

CIT 201 STRUCTURAL DESIGN

Fundamentals of structural design and detailing, including the selection and sizing of steel beams and columns, tension members, and connections; reinforced concrete beams, slabs, and columns; timber beams and columns. Framing plans, shop drawings, and rebar placement drawings are prepared. Prerequisites: CIT 210, MET 109. 3 lecture and 3 laboratory hours per week. 4 credit hours.



CIT 203 ESTIMATING

Fundamentals of quantity take-off, cost estimating, and unit-price bids for construction, including site work and excavation, concrete and masonry work, structural steel, carpentry, and other specialty work. Basics of construction economics and bid preparation will be covered, as well as the use of computerized estimating software. Prerequisite: CIT 104 or permission of the instructor. 2 lecture hours per week. 2 credit hours.

CIT 205 SURVEYING I

Fundamentals of plane surveying, covering the measurement of distances, elevations, angles, and directions. Major topics include use of the steel tape, the level, and the transit. The student is also introduced to the use of the theodolite, electronic distance measurement (EDM), and to basic surveying computations related to taping, leveling, and traversing; plotting of profiles and contours is also covered. Prerequisites: MAT 143, MET 109. 3 lecture and 3 laboratory hours per week. 4 credit hours.

CIT 206 SURVEYING II

A continuing study of plane surveying and applications, including control traverse computations, area partitioning, intersection problems, highway curves and earthwork, topographic surveying and mapping, boundary surveying, and construction surveying. Prerequisites: CIT 205. 3 lecture and 3 laboratory hours per week. 4 credit hours.

CIT 210 STRENGTH OF MATERIALS

A study of the relationship of the external forces on a body to the internal stresses and deformations of that body. Topics include stress, strain, mechanical properties, bolted and welded connections, torsion, shear and bending moment diagrams, beam stresses and deflections, and columns. Calculations use units from both the English and SI (Metric) systems. Computer software programs are used to analyze and solve typical problems. Prerequisite: MET 112. 3 lecture hours and 1 laboratory hour per week. 3 credit hours.

CIT 215 FLUID MECHANICS

A study of pressure, flow, and viscosity in fluids. Forces on submerged areas are computed and the effects of buoyancy on objects are studied. Friction losses in pipelines, valves and fittings are calculated, series piping systems are analyzed, and pumps are sized accounting for Net Positive Suction Head. Applications include analysis of actual piping systems and data collection from actual flow measurement devices such as weirs and venturi meters. Computer software programs are used to analyze and solve typical problems. Prerequisite: MET 112. 3 lecture hours and 1 laboratory hour per week. 3 credit hours.

CIT 285 SPECIAL TOPICS IN CIVIL/CONSTRUCTION TECHNOLOGY

Topics of current interest in surveying and civil/construction engineering technology. Course content arranged to satisfy the particular needs and interests of the students. Prerequisite: permission of the Coordinator. Credit by arrangement.

CIT 290 CO-OP EDUCATION EXPERIENCE

A work-externship comprising a minimum of 200 hours of employment related to surveying or civil/construction engineering technology, with a municipal engineering organization, a building contractor, surveyor, architect, or a private engineering firm. Prerequisite: Permission of the Coordinator. 3 credit hours.

CIT 295 INDEPENDENT STUDY

A special research or design project in surveying or civil/construction engineering technology for the advanced student with individual needs. Prerequisite: permission of the Coordinator. Credit by arrangement.



CLET 01 CLINICAL EXTERNSHIP

This is the portion of the program where the student is given the opportunity to observe at a radiation therapy department of his/her choice pending approval by the school and the selected department.



CLPT 01-03 CLINICAL INTERNSHIP I-III

This is the portion of the program that allows the student to put into practice the concepts and theories taught in the class. During these internships the student will rotate to the affiliate clinical sites to learn the application component.



COM 100 COMMUNICATIONS TECHNOLOGIES

An introduction to the technologies that shape the communications field, with special emphasis on the creative and enabling potential of computer applications and tools. Students will receive hands-on training in the Windows environment, master productivity software such as Microsoft Word, learn the basics of multimedia production using Microsoft PowerPoint, and become familiar with the ways in which current and coming technologies will shape and enhance their futures in Communications. Prerequisites: ENG 088, 098, if required. 3 lecture hours per week. 3 credit hours.

COM 101 MASS COMMUNICATIONS

A survey of the nature of contemporary mass media. Analysis and evaluation of the role of mass media in American life. Prerequisites: ENG 088, 098 if required. 3 lecture hours per week. 3 credit hours.

COM 102 REPORTING AND NEWS WRITING

Instruction in gathering news and interviewing, practice in news writing. Prerequisites: ENG 088, 098 if required. 3 lecture hours per week. 3 credit hours.

COM 103 INTRODUCTION TO RADIO BROADCASTING

This overview course is designed to introduce students to the principles of commercial radio broadcasting. Emphasis is placed on technical theory, programming and format, studio operation, radio sales, F.C.C. broadcast law, and production of audition tapes. Prerequisites: ENG 088, 098 if required. 3 lecture hours per week. 3 credit hours.

COM 105 STORYTELLING FOR DIGITAL MEDIA

This course covers the fundamentals of narrative development and explores the ways in which storytelling serves as an essential medium for human communication, with specific focus on its central role in the creation of video games, multimedia and interactive content. Students will examine traditional narrative theory with special emphasis on its adaptation for interactive digital media. Topics will include world creation, back-story, plot and story arc, genre, character development, and dialogue. Emphasis will be placed on narrative development, multiple narrative outcomes, and the demands of creative development in a collaborative project environment. Prerequisites: ENG 088, ENG 099, if required. 2 lecture and 2 lab hours per week. 3 credits.

COM 106 INTRODUCTION TO TELEVISION: PRODUCTION AND THEORY

An introduction to the methods and equipment used in the production of television programs in a studio environment. Discussion of the technical systems on which television is based. Students gain experience by assuming the role of producer/director and various crew positions such as floor manager, cameraman, etc. A critical look at television and its effect as a communications medium. 3 lecture hours per week. 3 credit hours.

COM 107 PUBLICATION EDITING AND DESIGN

This course provides instruction and practice in editing and layout for print publication. Emphasis is placed on coordinating graphic elements with text to develop effective print communications. Instruction includes computer applications. Microsoft Office and QuarkXPress are used along with complementary image editing and illustration software. Prerequisites: ENG 088, 098 if required. 3 lecture hours per week. 3 credit hours.

COM 108 PRINCIPLES AND PRACTICES OF PUBLIC RELATIONS

Principles and practices of communication between the public and an individual or organization. Topics covered include mass media, planning, publicity, writing and ethics. Prerequisites: Completion of all developmental English requirements. 3 lecture hours per week. 3 credit hours.

COM 109 INTRODUCTION TO FILM STUDY

A study of selected films representing the development of the art of filmmaking. The course includes the study of both the technical and cultural elements of film production. Students will learn to think, speak and write about film and filmmaking. 3 lecture hours per week. 3 credit hours.



COM 112 MULTIMEDIA DEVELOPMENT I

Presentation Management - An introduction to the elements of multimedia design; students will master the skills necessary to create a multimedia product from content creation and design planning to the use of presentation management and web design software. Students will expand their knowledge of Microsoft PowerPoint, learning to incorporate audio, video, animation and other media into their presentations, and build a rich, multimedia website using Microsoft FrontPage and Adobe Dreamweaver. 3 lecture hours per week. 3 credit hours.

COM 201 ISSUES IN MASS MEDIA

An analysis of the role of the media and popular culture in the formation of our society, our beliefs and ourselves. Students will follow current topics in the media, analyze the media treatment of these issues and examine the present state of the media within its historical framework. Prerequisites: ENG 089, 099 if required and COM 101 or the permission of the instructor. 3 lecture hours per week. 3 credit hours.

COM 202 ADVANCED REPORTING AND NEWS WRITING

Focuses on the principles and problems of feature, beat, and specialty reporting. Students will learn how and where to find newsworthy stories, cultivate sources, and become responsible for a particular beat, feature column or specialty topic. Prerequisites: ENG 088, 098, COM 102 or permission of the instructor. 3 lecture hours per week. 3 credit hours.

COM 206 TELEVISION FIELD PRODUCTION

This course provides instruction and practice in single camera field production and post-production editing. Emphasis is placed on coordinating audio and visual elements to communicate effectively to viewers. Prerequisite: COM 106 or permission of the instructor. 3 lecture hours per week. 3 credit hours.

COM 207 ADVANCED PUBLICATION EDITING AND DESIGN

This course builds on material covered in COM 107. Further exploration of principles of attractive layout and design using Quark Xpress and Adobe Photoshop. Emphasis is placed on teaching students to combine graphic elements with text to create attractive and journalistically-sound layouts. Prerequisite: COM 107 or permission of the instructor. 3 lecture hours per week. 3 credit hours.

COM 209 THE EVOLUTION OF FILM

A study of the cultural impact of film, and the effects of film portrayal upon the way in which we see ourselves and others. Students will develop skills and strategies for the analysis of film drawn from a wide variety of disciplines and approaches. Students will have the opportunity to participate in the creation of film and media projects of their own design. 3 lecture hours per week. 3 credit hours.

COM 212 MULTIMEDIA DEVELOPMENT II

Multimedia Authoring - Students will expand their skills in content creation and manipulation and extend their skill set to include imaging using Adobe Photoshop and Macromedia Fireworks, and audio editing using Sound Forge, Audition and Acid Pro. An introduction to animation using Macromedia Flash will round out the multimedia developer's toolkit. 3 lecture hours per week. 3 credit hours.

COM 214 COMMUNICATIONS PRACTICUM I

A variety of assignments offered in cooperation with local newspapers, radio and television stations, and other approved community institutions and agencies. The student must attend periodic seminars and/or prepare reports or other projects as required by the instructor. Prerequisite: permission of the instructor. 90 hours per semester to be arranged. 3 credit hours.

COM 215 COMMUNICATIONS PRACTICUM II

Same as COM 214. 90 hours per semester to be arranged. 3 credit hours.

COM 216 DIGITAL VIDEO EDITING AND MULTIMEDIA IMAGING

In this course students will learn to compose and edit digital video using Adobe Premiere and add special effects using Adobe After Effects. Students will learn to storyboard, shoot and edit their own video projects as well as work as team members on the video productions of their peers. Special emphasis will be placed on the use of digital video in multimedia projects and on the web. 3 lecture hours per week. 3 credit hours.



CRJ 101 INTRODUCTION TO CRIMINAL JUSTICE

Introduction to the background and history of law enforcement, the origin of laws, the beginnings of law enforcement, the causes of crime and definition of a criminal, critical areas of law enforcement as related to crime, public morals, and the public image. Corequisite: ENG 088. 3 lecture hours per week. 3 credit hours.

CRJ 102 POLICE ORGANIZATION AND ADMINISTRATION

Study of the principles of organization and administration as applied to law enforcement agencies; a review of police administration past and present with an evaluation of its future. Course includes study of the impact of behavioral sciences, the changing role and goals of police, the impact of police professionalization, and examination of police organization, administrative services, coordination and consolidation of police services and operational services. Prerequisite: ENG 098. 3 lecture hours per week. 3 credit hours.

CRJ 103 INTRODUCTION TO FORENSIC PROCEDURE

A review of the fundamental techniques used in the analysis and evaluation of physical evidence, including microtechniques, and special subjects of topical interest. Laboratory is included. Analyzing physical evidence using recent developments in non-instrumental and instrumental techniques. Prerequisite: ENG 098. 3 lecture and 3 laboratory hours per week. 4 credit hours.

CRJ 109 CORRECTIONAL ADMINISTRATION

The study of theories, methods and practices in the administration of punishment with special emphasis on the rehabilitation of the adult offender. Among the major topics are trends in punitive policies, probation, the prison community on the local, state, and federal levels including objectives and treatment methods, parole, and crime prevention. 3 lecture hours per week. 3 credit hours.

CRJ 201 POLICE MANAGEMENT SYSTEMS

Analysis of management improvement, the policies and procedures of personnel effectiveness and their specific application to law enforcement, planning, program and performance budgeting, records management, data processing, communications, leadership, decision making, and operations research. Surveys are used for problem identification, problem solving, and operations auditing. Corequisite: ENG 088. Prerequisite: CRJ 102. 3 lecture hours per week. 3 credit hours.

CRJ 203 CRIMINAL INVESTIGATION

A basic course in the methods of searching for truth and relevant information on criminal cases. Includes the police role in preliminary and follow-up investigation, interview techniques, and specialized investigative techniques relative to homicide, rape, robbery and arson. Legal responsibilities and general laboratory and scientific aids to investigation are also included. Corequisite: ENG 098. 3 lecture hours per week. 3 credit hours.

CRJ 205 POLICE ROLE IN THE COMMUNITY

The concepts and ethics of the police profession; the police function as a critically sensitive area of public service; the attitudes and actions of the police and the public which create positive and negative relationships between the two; the tension and conflicts within the individual police officer due to enforcement and non-enforcement of popular and unpopular laws and the police officer's relationship to the work group; sensitivity training in the area of human relations. Corequisites: ENG 088, ENG 098. 3 lecture hours per week. 3 credit hours.

CRJ 206 CRIMINAL LAW

A brief look at the intricacies of the administration of criminal justice, a discussion of the elements of common criminal status, the nature and difficulties of proof, the legal rules governing police practices and procedures, the Federal Civil Rights Act, Criminal and Civil Liabilities of Law Enforcement Personnel, and constitutional provisions of particular importance to the police. Corequisites: ENG 088, ENG 098. 3 lecture hours per week. 3 credit hours.

CRJ 207 SPECIAL POLICE OPERATIONS

This course emphasizes the challenge presented to the American Law Enforcement system by both organized crime and political terrorism and offers recommended measures for their control. Corequisites: ENG 088, ENG 098. 3 lecture hours per week. 3 credit hours.

CRJ 208 COMMUNITY SUPERVISION OF THE OFFENDER

A study of theories, practices and the problems of their integration into a meaningful program of supervision in the community for sentenced offenders. Major issues include probation, parole, specialized programs, (e.g. Halfway House, alternative programs, diversionary programs, work and research, and prediction. Corequisite: ENG 098. 3 lecture hours per week. 3 credit hours.



CRJ 223 CRIMINAL JUSTICE PROBLEMS IN BUSINESS AND INDUSTRY

Techniques and practices that assist private commercial establishments, particularly large industrial plants and department stores, in minimizing losses through security control. Issues that will be covered are physical security, procedural controls, special problems such as business and industrial espionage, riots, shoplifting, and dishonest employees. Corequisite: ENG 098. 3 lecture hours per week. 3 credit hours.

**CSC 100 COMPUTER PROGRAMMING FUNDAMENTALS**

This course introduces students to file management and computer development. Topics include computer instructions, program logic, coding programs, and testing programs. Problem solving, critical thinking and programming techniques are emphasized throughout the course. This course is strongly recommended for students interested in the Computer Science degree programs who have little or no programming background. Prerequisite: ENG 088, MAT 022. 2 lecture and 2 laboratory hours per week. 3 credit hours.

CSC 101 COMPUTER ALGORITHMS

This course introduces students to the logic used to develop solutions to common problems in the computer science field. These step-by-step detail solutions are called algorithms and serve as the basic methods utilized in most computer problems. In the lab component of this course these algorithms are written and tested in C++. Topics include number systems, logical operators, one and two-dimensional arrays and methods of sorting arrays, graphs of functions, and string manipulation. Prerequisites: CSC 100. 2 lecture and 3 laboratory hours per week. 3 credit hours.

CSC 102 DATA STRUCTURES

An introduction to data representation and structures C++: strings, arrays, linked lists, queues, and stacks. The course extends the knowledge gained in CSC 101 to process information stored in the structures described above. Prerequisite: CSC 101 with a grade of "C" or better. 2 lecture and 2 laboratory hours per week. 3 credit hours.

CSC 115 INTRODUCTION TO COMPUTER PROGRAMMING

This course is an introduction to computers and programming. Topics include: components of the computer system, problem solving techniques, processing data, manipulating files, creating mathematical functions, controlling processes using the BASIC programming language. Prerequisite: MAT 022. 2 lecture and 2 laboratory hours per week. 3 credit hours.

CSC 121 ASSEMBLY LANGUAGE I

An introduction to the organization and operation of a computer system. The course will focus on machine representation of instructions and data through the study of a low level, machine-oriented assembly language. Topics include memory dumps, registers, and internal data representation. Prerequisite: CIS 102 or CSC 101. 3 lecture and 1 laboratory hour per week. 3 credit hours.

CSC 126 INTRODUCTION TO OPERATING SYSTEMS

A survey of technical topics related to computer systems with emphasis on the relationships between hardware architectures, system software, and application software. Topics include computer systems components, process management and scheduling, data and file management system organization, protection and security, and command procedure languages. Prerequisite or Corequisite: CSC 121. 3 lecture hours per week. 3 credit hours.

CSC 217 ADVANCED C++ PROGRAMMING

This course introduces the student to object-oriented programming through the use of the C++ Programming Language. The course will focus on features and applications especially suited to the capabilities of the C++ language. Prerequisite: CSC 102 with a grade of "C" or better. 2 lecture and 2 laboratory hours per week. 3 credit hours.

CSC 218 VISUAL C++

This is a basic course in Microsoft Visual C++ focusing on object-oriented design. Topics covered include the visual C++ toolset, the Microsoft Foundation Class (MFC) library and application framework; and implementing the user interface through menus and toolbars, dialog boxes, and controls. Basic knowledge of computer, Windows, and C++ programming are necessary for successful completion of this course. Prerequisite: CSC 217 or C/C++ programming experience. 2 lecture and 2 laboratory hours per week. 3 credit hours.

CSC 231 COMPUTER ORGANIZATION & ARCHITECTURE

A study of the components that make up a computer system. Topics include: logic design, common logic families, sequential devices, encoders and decoders, basic processor organization, memory systems, peripheral devices, and data transmission. Prerequisite: CSC 121. 3 lecture hours per week. 3 credit hours.

CSC 285 SPECIAL TOPICS IN COMPUTER PROGRAMMING

Topics of current interest and trends in computer programming are discussed in this seminar course. Course content is arranged to satisfy particular needs and interests of students. This course is intended for students who are completing their degree in Computer Science. Prerequisite: Permission of coordinator. 3 credits.

CSC 290 CO-OP EDUCATION EXPERIENCE

This course is an externship of approximately 200 hours in the departments of local business firms. An elective may be substituted. See Program Coordinator. Prerequisite: Completion of all third semester courses and a GPA of at least 2.0. 200 externship hours. 3 credit hours.

CSC 295 INDEPENDENT STUDY

A special research or development project in computer science for the advanced student with individual needs. Prerequisite: GPA of at least 3.00 and must have completed a minimum of 48 credits. 3 credits.



DBI 201 INTRODUCTION TO DEAF-BLINDNESS AND DEAF-BLIND COMMUNITY

This course presents an overview of the lives and perspectives of members of the Deaf-Blind community and their culture. It includes etiologies, the impact of deaf-blindness on the culture and psyche of Deaf-Blind persons and initial skills development in communication modifications for persons who are Deaf-Blind. It also covers the various roles and relationships of interpreters and support service providers within the Deaf-Blind community, advocacy for the Deaf-Blind community by sharing information, linking and re-linking communities, and being supportive of political or social actions that enhance the lives of people who are Deaf-Blind. Basic level knowledge and experiential activities around meeting, socializing, and working with Deaf-Blind people in a variety of settings are provided. Prerequisites: Program admission requirements or approval of instructor. 3 lecture hours per week. 3 credit hours.

DBI 205 COMMUNICATION METHODS AND SIGHTED GUIDE TECHNIQUES

This course covers various communication methods and techniques used among persons who are Deaf-Blind and training in sighted guide techniques for Support Service Providers (SSPs) and interpreters. The course incorporates visual examples of the methods through specially produced videotapes and activities that will optimize skill acquisition. Training in sighted guide techniques used with Deaf-Blind people will stress safety factors and mobility issues. Basic issues faced by interpreters and SSPs regarding logistics of group settings are also addressed. Prerequisite or Corequisite: DBI 201. 2 lecture hours and 1 laboratory hour per week. 2 credit hours.

DBI 210 DEAF-BLIND INTERPRETING AND INTERPRETING STRATEGIES

Interpreting Roles and Responsibilities covers the various roles and responsibilities of interpreters who work with persons who are Deaf-Blind, ethics, and cross-cultural considerations. Interpreting Strategies focuses on linguistic modifications for tactual and restricted field interpreting and strategies for incorporating environmental aspects into the interpreting process. Specific linguistic modifications such as condensing and editing, utilizing pre- and post-assignment information, and transferring non-manual grammatical signals into a tactual mode. Coordination of Interpreting Services for Groups, and Conferences with Deaf-Blind Participants covers the planning, coordinating, and effective provision of interpreter/SSP services for events in which persons who are Deaf-Blind participate. The focus is on effective leadership styles and team play when working in these settings. Prerequisites: DBI 201 and DBI 205. 3 lecture hours and 3 laboratory hours per week, 12 hours of field observation of Deaf-Blind interpreting and interaction in Deaf-Blind community. 4 credit hours.



ECO 105 BASIC ECONOMICS

A one-semester course, concentrating on macro-and micro-economic issues. Operations of a market economy using the fundamental principles of supply and demand, production costs and basic market models. National income and our monetary system. Interaction of monetary and fiscal policies to accomplish economic objectives. Students will be able to understand the overall functioning of our market and national economy. Prerequisites: ENG 087, MAT 011. 3 lecture hours per week. 3 credit hours.

ECO 201 PRINCIPLES OF ECONOMICS I

An introduction to economic problems of GDP growth, full employment, price stability, and national debt and deficits. Topics include national income accounting, aggregate economics sectors, money and banking, income determination and fiscal and monetary policies. Students will be able to evaluate and measure the nation's economic health. Prerequisites: ENG 089, ENG 099, MAT 022. 3 lecture hours per week. 3 credit hours.

ECO 202 PRINCIPLES OF ECONOMICS II

An introduction to theory of a firm (a micro unit). Analysis of a firm under fundamental principles of supply and demand and consumer behavior. Cost analysis and profit maximization under various market models. The pricing of resources and contemporary issues. Students will be able to analyze behavior of a firm. Prerequisites: ENG 089, ENG 099, MAT 022. 3 lecture hours per week. 3 credit hours.

ECO 205 MONEY AND BANKING

Study of the evolution and functions of money, monetary standards, credit and development of banking. The course examines banking and credit institutions, theory and practice of bank operations, the Federal Reserve System, foreign exchange, and recent banking developments. Prerequisites: ENG 089, ENG 099, MAT 022, ECO 201 or ECO 202. 3 lecture hours per week. 3 credit hours.

ECO 207 URBAN ECONOMICS

An introduction to the basic principles of urban and regional economics with applications to current metropolitan problems. Emphasis is on the determination of a viable economic base that allows maximum employment, the provision of adequate public services, the impact of federal and state policies on urban transportation and income distribution, fiscal conditions, and the supply of housing. Prerequisites: ENG 089, ENG 099, MAT 022. Corequisite: ECO 201 or ECO 202. 3 lecture hours per week. 3 credit hours.

ECO 209 THE INTERNATIONAL ECONOMY

An introduction to international trade theory and policy. An historical examination of emergence of trade and basis and gains from trade. Balance of payment equilibrium and U.S. trade deficit. Tariff and other trade barriers, foreign exchange markets, capital flows, and multinational corporations. Special topics include GATT, EEC and NAFTA. Students will be able to use analytical ability and vocabulary needed in the international trade, commercial, and financial institutions. Prerequisites: ENG 089, ENG 099, MAT 022. Corequisite: ECO 201. 3 lecture hours per week. 3 credit hours.

**EDU 205 EDUCATIONAL PSYCHOLOGY**

Psychology applied to teaching and learning processes. The course helps students apply understanding and methods of psychology to problems in teaching/learning situations. Prerequisites: ENG 101 or 112. 3 lecture hours per week. 3 credit hours.

EDU 215 FIELD WORK IN EDUCATION

With permission of the department, any student who has successfully completed EDU 205 and PSY 101 or SOC 101, or students with exceptional qualifications may elect to engage in field work. The student must attend regular classes and/or prepare reports or other projects as required by the department. Credit will be based on a minimum of 30 hours in an approved institution in addition to the classes. (Note: Students must: 1. be matriculated in Liberal Arts Education or Liberal Arts Early Childhood; 2. have completed 30 credits in the above mentioned program; 3. fill out an application form, available through the department, by APRIL 15th for the Fall semester or NOVEMBER 15th for the Spring semester; and 4. proof of a Mantoux test with a negative reading is required.) 3 credit hours.

EDU 270-289 TOPICS IN EDUCATION

Studies of selected events, issues or topics in education chosen on the basis of timely concerns, community interests, student requests, to be offered not on a regularly scheduled basis but rather periodically. Individual topics will be announced prior to registration; one, two or three credits will be offered depending on hours and format.



EET 101 PRINCIPLES OF DC CIRCUITS

Analysis of passive DC networks using standard network theorems such as superposition, mesh and nodal analysis, Thevenin, current and voltage source conversions. Laboratory emphasizes the use and understanding of basic instrumentation and measurement techniques. Prerequisite: ENG 088. Corequisite: MAT 143 or MAT 119. 3 lecture and 3 laboratory hours per week. 4 credit hours.

EET 102 PRINCIPLES OF AC CIRCUITS

Continuation of EET 101, including analysis of passive devices in AC networks, resonance and characteristics of transformers. Laboratory introduces measurement techniques utilizing signal generators, oscilloscopes and frequency counters. Prerequisite: EET 101. 2 lecture and 3 laboratory hours per week. 3 credit hours.

EET 103 INTRODUCTION TO COMPUTER AND NETWORKING TECHNOLOGY

The course will empower the students with the knowledge and skills needed to build and test computer systems and to configure, in both hardware and software, various field replaceable units (FRU's) including motherboards, hard drives, memory, CD ROM drives, sound cards, graphics adapters, and network interface cards. Further, the students will install and configure network software on a small local area network (LAN) and install and debug common PC applications for Microsoft Windows. Ownership of a PC compatible computer is strongly advised. 2 lecture and 2 laboratory hours per week. 3 credit hours.

EET 111 DIGITAL COMPUTER FUNDAMENTALS

A study of the fundamentals of digital computers including number systems, Boolean algebra, Karnaugh maps, logic functions, logic gates, and the implementation of logic functions using discrete and integrated circuit components. Combinations of fundamental circuits are developed to form counters, registers, encoders, decoders, multiplexers, demultiplexers, arithmetic, and memory units. In the laboratory the student is introduced to breadboarding, analysis, synthesis, testing and troubleshooting of digital circuits through the use of digital test instruments such as pulse generators, oscilloscopes, and logic probes. Prerequisite: ENG 088. Corequisite: MAT 143 or MAT 119. 3 lecture and 3 laboratory hours per week. 4 credit hours.

EET 204 ELECTROMECHANICAL DEVICES AND SYSTEMS/ROBOTICS

The analysis, synthesis, and integration of systems encompassing electromechanical, electronic, electrical, and mechanical subsystems. Actuators, motors, generators, sensors, transducers, tachometers, amplifiers, signal conditioners, and displays are studied. Analog, digital, and hybrid (analog/digital) control systems, instrumentation and measurement techniques are also studied. Further study of the integration of automatic control systems and computers involve programmable controllers, robotics, and automated manufacturing systems. In the laboratory the student performs experiments on these systems and subsystems with emphasis on diagnostic testing, interfacing, measurement, troubleshooting, calibration, programming, and servicing techniques. Prerequisites: EET 211 and EET 213. 3 lecture and 3 laboratory hours per week. 4 credit hours.

EET 211 COMPUTER SYSTEMS /MICROPROCESSORS

A continuation of EET 111. A study of digital computer sub-assemblies such as the central processing unit (CPU), data registers, data bus configurations, address registers, and various peripherals. Hardware, software, and firmware aspects of computer systems are studied with emphasis on microprocessor architecture and machine language programming. In the laboratory the student is required to build and troubleshoot complex control circuits and to program and interface a microprocessor with various input/output (I/O) devices and peripherals. Prerequisite: EET 111. 3 lecture and 3 laboratory hours per week. 4 credit hours.



EET 213 SEMICONDUCTOR DEVICES AND CIRCUITS

The study of solid state devices such as diodes, bipolar junction transistors, field effect transistors, unijunction transistors, silicon controlled rectifiers, and other four-layer devices and their application in basic circuits. Multistage amplifiers, differential amplifiers, operational amplifiers, rectifiers, regulators, and control circuits are also studied. In the laboratory the student is required to analyze, synthesize, test, troubleshoot and evaluate circuits and devices, and become proficient in the use of test equipment and development of measurement techniques.

Prerequisite: EET 102. 4 lecture and 3 laboratory hours per week. 5 credit hours.

EET 265 FIBER OPTIC COMMUNICATION SYSTEMS

Principles and techniques associated with the transmission of digital and analog signals through optical waveguides (fibers). Topics will include: properties of optical fibers and waveguides, components and basic circuits of optical communication systems, baseband and pulse modulation, quantization, digital signaling techniques, multiplexing and coherent optical communications. The laboratory component will provide hands-on experience in the handling of fibers, splicing and connecting, measurement of fiber properties, the building and testing of a fiber optic communication system.

Prerequisites: EET 213. 3 lecture and 3 laboratory hours per week. 4 credit hours.

EET 285 SPECIAL TOPICS IN ELECTROMECHANICAL TECHNOLOGY

The study of topics of current interest in electromechanical technology. The course content is arranged to satisfy the particular needs and interest of the students. Prerequisite: Permission from EEET Coordinator. Credit by arrangement.

EET 290 CO-OP EDUCATION EXPERIENCE

An externship at the facilities of an appropriate firm, with or without compensation, arranged with program coordinator's approval. 3 credit hours.

EET 295 INDEPENDENT STUDY

A special research and/or development project in electromechanical technology for the advanced student with individual needs. Prerequisite: Permission from EEET Coordinator. Credit by arrangement.

**EGG 105 INTRODUCTION TO FUNDAMENTALS OF ENGINEERING**

Introduction to engineering methods through the study of numerous problems. Orderly analyses and accurate computation are stressed. In addition, the course provides the student with a preliminary insight into the field of engineering and an acquaintance with various aspects of college encountered by engineering students. Prerequisites: MAT 144 and ENG 099. 3 lecture hours per week. 3 credit hours.

EGG 111 ENGINEERING AND COMPUTER GRAPHICS

A study of the fundamentals of engineering drawing using both manual methods and Computer-Aided Drafting (CAD) equipment to construct typical detail drawings. Topics covered include orthographic projection, freehand sketching, dimensioning, sections, and elementary tolerancing. 1 lecture hour and 3 laboratory hours per week. 2 credit hours.



EGG 201 ENGINEERING MECHANICS (STATICS)

A study of basic structural and mechanical systems in static equilibrium. Free-body diagrams, vector algebra, and scalar analysis are used to find resultants of forces and moments, and for solving equilibrium problems; applications including simple structures and machines, dry friction, center of gravity, centroids, area and mass moments of inertia by integration. Prerequisites: MAT 171, PHY 111. 3 lecture hours per week. 3 credit hours.

EGG 202 ENGINEERING MECHANICS (DYNAMICS)

A study of the kinematics and kinetics of motion, including rectilinear and curvilinear motion, force and acceleration, work and energy, impulse and momentum, for particles and rigid bodies. Calculus is used throughout for problem solving. Prerequisites: MAT 172 and EGG 201. 3 lecture hours per week. 3 credit hours.

EGG 203 APPLICATIONS OF COMPUTERS IN SCIENCE AND ENGINEERING

This course emphasizes hands-on experience with stand-alone microcomputers. Simulations, data analysis, graphics techniques, and structured programming are used to show the range of computer problem-solving techniques. Other topics covered are program correctness, operating systems, a survey of computer languages, the relationship of the components internal and external to the computer. The increasingly popular language Pascal is used as necessary. 2 lecture and 3 laboratory hours per week. 3 credit hours.

EGG 205 SURVEYING

Theory and practice of measurements and their applications. Topics include use of instruments, recording of data, computations and mapping; theory and use of simple curves; earthwork measurements and computation. 2 lecture and 3 field laboratory hours per week. 3 credit hours.

EGG 207 PRINCIPLES OF ELECTRICAL ENGINEERING

Introduction to the fundamental concepts of electric circuits. Course covers mesh and nodal analysis, network theorems and applications, steady state analysis, and phasor diagrams. Introduction includes time-varying analysis R-L, R-C, and R-L-C circuits. Prerequisite: PHY 201. Corequisite: MAT 272. 3 lecture and 3 laboratory hours per week. 4 credit hours.

EGG 251 DIGITAL DESIGN

A study of the fundamentals of digital computers including number state machines systems, Boolean algebra, Karnaugh maps, logic functions, logic gates, and the implementation of logic functions using discrete and integrated circuit components. Combinations of fundamental circuits are developed to form counters, registers, encoders, decoders, multiplexers, demultiplexers, arithmetic, and memory units. 3 lecture hours per week. 3 credit hours.



EHS 200 CASE STUDIES IN EMERGENCY MEDICINE

In this course students will prepare emergency medicine patient case studies in an effort to enhance their patient care management. Various teaching methods will be utilized including role-playing, patient care report documentation, transfer of care, mock trial and deposition. This program is intended to provide the student with a better understanding of effective patient care, documentation and their role in the continuum of care. Prerequisites: ENG 102, acceptance into the AS - Emergency Health Science Program. 3 lecture hours per week. 3 credit hours.

EHS 201 HEALTH CARE LEADERSHIP

This course will focus on effective ways to enhance health care leadership styles while focusing on the perspective of Emergency Medicine. Students will review and develop the essentials of leadership personality traits that enhance job satisfaction, customer satisfaction and patient advocacy. Ways to promote the profession and enhance profession growth will be discussed. The curriculum is designed to foster critical thinking, enhance interpersonal and leadership skills, promote ethical sensitivity, and professional responsibility in the delivery of healthcare. Students will work in small groups using their professional work experiences to enhance classroom learning. Prerequisites: ENG 102, acceptance into the AS - Emergency Health Science Program. 3 lecture hours per week. 3 credit hours.

EHS 202 FUNDAMENTALS OF HEALTH CARE ADMINISTRATION

This course is designed to provide healthcare professionals with the necessary tools to be effective and successful managers. The course is designed to provide the student with basic management principles including legal and ethical concerns, quality improvement, human resources and employee relations, occupational safety, planning, and fiscal policy. Prerequisites: ENG 102, acceptance into the AS - Emergency Health Science Program. 3 lecture hours per week. 3 credit hours.



**EHS 203 INCIDENT
COMMAND SYSTEM**

This course is designed to meet the needs of emergency responders who have responsibilities to deploy, implement, or function within an Incident Command System (ICS). General principles include implementation of ICS, structure and function, importance of critique and how ICS can be expanded and used during natural or man-made acts of terror. Special emphasis on response to Bioterror situations will be discussed. The course will complete with participation in a full-scale training exercise. This course is part of the Certificate in Bioterrorism and Homeland Security. Pre-requisites: ENG 101, PSY 101, medical training EMT-B or higher. 9 hours per week for 5 weeks. 3 credit hours.

**EHS 204 HISTORY OF
TERRORISM**

This course will study the evolution of terrorist actions, organization and events leading to major terror activity. Material will include preparation for safe response to the scene of a terror event including a review of the impact and consequences of post-traumatic stress on victims, families, and emergency workers. This course is part of the Certificate in Bioterrorism and Homeland Security. Corequisite: EHS 203. 4 lecture hours per week. 4 credit hours.

**EHS 205 EMERGENCY
PLANNING IN
BIOTERRORISM**

Effective Emergency planning is paramount to effective emergency management. This course will study techniques for survival of natural and man-made disasters. Topics covered will include, risk analysis, threat assessment, pre-planning skills, staffing considerations, resource management, managing an incident, and debriefing skills for post evaluation. This course is part of the Certificate in Bioterrorism and Homeland Security. Prerequisite: EHS 204. 3 lecture hours per week. 3 credit hours.

**EHS 206 CHEMICAL,
BIOLOGICAL,
NUCLEAR, EXPLOSIVE
EXPOSURE - CBRNE**

This course provides an overview of the medical treatment for chemical, biological, nuclear, and explosive exposures during a terrorist attack. Subjects covered will include common agents used in Weapons of Mass Destruction, equipment and response techniques, full-scale exercise coordination and current medical treatment for each potential agent. This course is part of the Certificate in Bioterrorism and Homeland Security. Corequisites: EHS 205. 4.5 lecture hours per week for 10 weeks. 3 credit hours.

**ELG 101 BASIC
ELECTROLOGY**

A one-semester course which provides students with those theoretical aspects of Electrology needed for entry level performance. Topics covered include the historical developments, rationales for various treatment procedures and techniques including consultation, health history assessment, informed consent, record keeping and documentation. Professional associations and Electrology-related ethical business practices are stressed. Topics from biology and physical sciences, business and related health technologies are integrated with Electrology. 3 lecture and 3 laboratory hours per week. 3 credit hours.

ELG 102 CLINICAL PRACTICE IN ELECTROLOGY

A beginning-level clinical course in which students apply learned theoretical knowledge to the practical hands-on aspects of Electrology. Students will observe, practice and gradually acquire skill in applying the procedures and techniques currently used by professional electrologists. Specific topics will also include Advanced Study in Neurology and Angiology, Bacteriology & Disinfection, Thermolysis, The Blend, Needles and Treatment of Specific Areas. Students will treat all areas of the body normally treated by electrologists. Prerequisite and/or corequisite: ELG 101. 5 lecture and 3 laboratory hours per week. 5 credit hours.

ELG 201 ADVANCED CLINICAL PRACTICE IN ELECTROLOGY II

A course in which students continue to refine their skills and develop expertise in all aspects of clinical electrology. Laws which regulate the practice of electrology are also presented. Professional associations, business practices, advertisements and ethical procedures are stressed. Students discuss and plan their own offices. On-site visits are made to professional electrologists' offices. Prerequisite: ELG 102. 5 lecture hours and 3 laboratory hours per week. 5 credit hours.

ELG 202 PROFESSIONAL ELECTROLOGIST BUSINESS PRACTICES

This is a course in which students learn how to set-up a successful electrolysis practice. There is an emphasis on acquiring creditability with clients, gaining professional social skills, and making a "painful" experience quite "painless." Marketing strategies along with useful advertising tips will aid the graduating electrologist in achieving their goals as successful, professional business people. 3 lecture hours and 2 laboratory hours per week. 2 credit hours.



EMT 100 CARDIOPULMONARY RESUSCITATION

This program meets the requirements of the American Heart Association's Basic Life Support for Healthcare Providers, and the American Red Cross' CPR for the Professional Rescuer. This program is designed to teach techniques for basic airway assessment and management, cardiopulmonary resuscitation, and management of foreign-body airway obstruction for adults, children, and infants. The student will also be introduced to the automated external defibrillator (AED), and will become proficient in its use. An American Heart Association or American Red Cross-certified instructor will teach this program. A course completion card will also be issued by the appropriate certifying agency. 1 lecture hour per week. 1 credit hour.

EMT 102 EMERGENCY MEDICAL TECHNICIAN - BASIC

This course meets the requirements of the National Highway and Transportation Safety Administration's Emergency Medical Technician-Basic: National Standard Curriculum. The course is designed to instruct a student to the level of Emergency Medical Technician-Basic (EMT-B). The EMT-B serves as a vital link in the chain of the healthcare team. The student will learn all skills necessary to provide emergency medical care at a basic life support (BLS) level with an ambulance or other specialized service.

Upon successful completion of this course, the student will be eligible to take the National Registry of Emergency Medical Technicians EMT-B Certification Examination, which is required to obtain NJ State and/or National Registry certification as an EMT-B. Prerequisite: EMT 100 or proof of current CPR/AED certification at the healthcare/professional level by the American Heart Association, American Red Cross, or the National Safety Council. 6 lecture hours per week. 6 credit hours.



ENG 087 INTRODUCTION TO LANGUAGE ARTS

Introduction to Language Arts is a preparatory Basic Studies Program course designed to create a context for developmental reading and writing. The primary objectives of the course are to develop in the students the ability to manage time relevant to the requirements of ENG 088 and ENG 098, to assimilate diverse educational materials centered on a theme, and to assist in the expression of their ideas, both written and oral. 6 lecture hours per week. 6 credit hours.

ENG 088 INTRODUCTION TO COLLEGE READING I

Part of a multi-semester sequence designed to help the student whose reading ability indicates the need for concentrated involvement in the reading process, particularly to improve comprehension, critical reading and vocabulary. 4 lecture hours per week. 4 credit hours.

ENG 089 INTRODUCTION TO COLLEGE READING II

Highest level of a multi-semester sequence providing intensive involvement in the reading process. 4 lecture hours per week. 4 credit hours.

ENG 098 INTRODUCTION TO COLLEGE WRITING I

Part of a multi-semester sequence designed to help the student whose writing indicates the need for concentrated attention and practice with the process of language use. Particular attention is given to producing compositions that have sufficient information. 4 lecture hours per week. 4 credit hours.

ENG 099 INTRODUCTION TO COLLEGE WRITING II

Highest level of a multi-semester sequence providing intensive involvement in the writing process. 4 lecture hours per week. 4 credit hours.

ENG 101 ENGLISH COMPOSITION I

First half of a two-semester sequence, completed by either ENG 102 or ENG 122 or required by program of study, which focuses on the development of the student's skill in writing expository prose. Prerequisite: ENG 099, if needed. 3 lecture hours and one conference hour per week. 3 credit hours.

ENG 102 ENGLISH COMPOSITION II

Second half of a two-semester sequence, which focuses on the continued development of the student's skill in writing expository prose as well as an introduction to literature. Prerequisite: ENG 101. 3 lecture hours and 1 conference hour per week. 3 credit hours.

ENG 111 ENGLISH COMPOSITION FOR SPEAKERS OF OTHER LANGUAGES I

This course is the first semester of a two-semester sequence of college composition for students whose first language is not English. The sequence serves in lieu of the foreign language requirement and as a substitute for ENG 101 for non-native speakers of English. Prerequisite: ESL 065 and ESL 092 or ESL Placement Test. 3 lecture hours and 1 conference hour per week. 3 credit hours.

ENG 112 ENGLISH COMPOSITION FOR SPEAKERS OF OTHER LANGUAGES II

This course is the second semester of a two-semester sequence of college composition for students whose first language is not English. The sequence serves in lieu of the foreign language requirement and as a substitute for ENG 101 for non-native speakers of English. Prerequisite: ENG 111 and ESL 082. 3 lecture hours and 1 conference hour per week. 3 credit hours.

ENG 122 INTRODUCTORY TECHNICAL AND BUSINESS WRITING

Second half of a two-semester sequence, with focus on the types of writing used in business and industry, including process analysis, mechanism descriptions, summaries, proposals, research projects, letters, memorandums and resumes. Prerequisite: ENG 101. 3 lecture hours and 1 conference hour per week. 3 credit hours.

ENG 128 THE DYNAMICS OF COMMUNICATION

The study of human relationships with emphasis on communication as a process. Topics covered will include self-concept, perception, listening, language, assertiveness, and conflict resolution and their roles in human relationships. Communication concepts will be supplemented by classroom exercises. 3 lecture hours per week. 3 credit hours.

ENG 129 PUBLIC SPEAKING

Instruction and practice in oral communication. Course includes training in impromptu and extemporaneous speaking, logical organization of material, methods of proof, persuasion, audience analysis, techniques of delivery, and fundamentals of group discussion and debate. 3 lecture hours per week. 3 credit hours.

ENG 201 LITERATURE OF THE WESTERN WORLD I

A survey of the major periods in the development of Western literature from ancient Greece and Rome through the Medieval era, with an emphasis on the major figures such as: Homer, Sophocles, Plato, Virgil, Paul, Augustine, Dante, and Chaucer. The place of literature in the social and political history of the West will also be explored. Prerequisite: ENG 102 or 122. 3 lecture hours per week. 3 credit hours.

ENG 202 LITERATURE OF THE WESTERN WORLD II

A survey of the major periods in the development of Western literature from the Renaissance to the post-modern with an emphasis on the major figures such as Machiavelli, Shakespeare, Voltaire, Goethe, Tolstoy, Kafka, Eliot, and Borges. The place of literature in the social and political history of the West will also be explored. Prerequisite: ENG 102 or 122. 3 lecture hours per week. 3 credit hours.

ENG 205 BRITISH LITERATURE I

Study of the major British poets and prose writers from Beowulf to Pope and Swift, studied in their historical context and in their aspects of enduring merit. Prerequisite: ENG 102 or 122. 3 lecture hours per week. 3 credit hours.

ENG 206 BRITISH LITERATURE II

Study of the major British poets and prose writers from the pre-Romantic poets to the present, studied in their historical context and in their aspects of enduring merit. Prerequisite: ENG 102 or 122. 3 lecture hours per week. 3 credit hours.

ENG 207 AMERICAN LITERATURE I

A survey of major works in American Literature from Colonial diarists to Whitman. Prerequisite: ENG 102 or 122. 3 lecture hours per week. 3 credit hours.

ENG 208 AMERICAN LITERATURE II

A survey of major works in American Literature from Dickinson to the present. Prerequisite: ENG 102 or 122. 3 lecture hours per week. 3 credit hours.

ENG 209 WORLD LITERATURE I

A study of some of the representative classics of both Western and Eastern literature from antiquity to 1650. Readings may include selections from the Bible, the Greek and Roman classics, Gilgamesh, Confucius and The Mahabharata, The Dhammapada, The Qur'an, the Popol Vuh, Beowulf, Chaucer, as well as Machiavelli, Shakespeare, Donne, and Milton. Through a study of these texts, students should develop a knowing appreciation of some of the great cultural traditions of the world. Prerequisite: ENG 102 or 122. 3 lecture hours per week. 3 credit hours.

ENG 210 WORLD LITERATURE II

A study of some of the major representative classics of both Western and Eastern literature from 1650 to the present. Readings will include selections from Asia, the Middle East, Africa, Oceania, as well as Europe and the Americas. Through a study of the texts from these diverse cultures, students should develop a knowing appreciation of some of the great cultural traditions of the world. Prerequisite: ENG 102 or 122. 3 lecture hours per week. 3 credit hours.

ENG 215 CREATIVE WRITING

An introduction to the various forms of creative writing with emphasis on the development of superior craftsmanship in imaginative writing. Assignments are given to encourage students who have demonstrated advanced skills in writing to experiment with various forms. Prerequisite: ENG 101 and 102 or 122 or instructor's permission. (Note: This course does not fulfill the 200-level literature requirement). 3 lecture hours per week. 3 credit hours.

ENG 216 CONTEMPORARY LITERATURE

A study of writers from 1945 to the present, presenting major literary movements and their philosophical implications. Emphasis is on those novelists, playwrights, and poets who represent the contemporary trends in form, content, and style. Prerequisite: ENG 102 or 122. 3 lecture hours per week. 3 credit hours.

ENG 217 LITERATURE AND THE ARTS I

A period study of literature using the fine arts to reveal the artistic environment of each era. The fine arts, films, and other creative media are used to show how artists working in their various disciplines have handled the same themes as those which are read, from Ancient Greece to Impressionism. Prerequisites: ENG 102 or ENG 122, HIS 101-102, or permission of instructor. 3 lecture hours per week. 3 credit hours.

ENG 218 LITERATURE AND THE ARTS II

A period study of literature using the fine arts to reveal the artistic environment of each era. The fine arts, films, and other creative media are used to show how artists working in their various disciplines have handled the same themes as those which are read, from Impressionism to the present. Prerequisite: ENG 102 or 122, HIS 101-102, or permission of the instructor. 3 lecture hours per week. 3 credit hours.

ENG 220 DRAMA AS LITERATURE

A study of techniques, thematic approaches, and critical analyses of dramatic literature. Students read to critically analyze plays and attend actual performances. Additional activities may include student line readings, character portrayals, and participation in a performance. Prerequisite: ENG 102 or 122. See also FIA 205-206, Introduction to Drama. 3 lecture hours per week. 3 credit hours.



ENG 227 AFRICAN AMERICAN LITERATURE I

A survey of selected writings by African Americans emphasizing the literary significance of each work and author, studied in its historical and sociological contexts from slave narratives and early folk tradition to the beginnings of the Harlem Renaissance of the 1920's. Prerequisite: ENG 102 or 122. 3 lecture hours per week. 3 credit hours.

ENG 228 AFRICAN AMERICAN LITERATURE II

A survey of the selected writings by African Americans emphasizing the literary significance of each work and author, studied in its historical and sociological contexts from the Harlem Renaissance of the 1920's to the resurgent cultural self-consciousness of the 1960's to the present proliferation of African American literature. Prerequisite: ENG 102 or 122. 3 lecture hours per week. 3 credit hours.

ENG 229 INTRODUCTION TO POETRY

An introductory study of the major poets and genres of poetry in English, beginning with early ballads and songs, visiting each of the major periods and styles, featuring in-depth views of major figures in the development of poetry (Shakespeare, Blake, Whitman, etc.) and concluding with a study of representative 20th Century voices. Technical aspects of poetry will be discussed, as well as the cultural context and enduring nature of poetic expression. 3 lecture hours per week. 3 credit hours.

ENG 230 AMERICAN POETRY

An introductory study of the major poets and genres of American poetry, beginning with Colonial and Federal era poets, visiting each of the major periods and styles, featuring in-depth views of major figures in the development of American poetry (Whitman, Dickinson, Williams, Eliot, Ginsburg, etc.) and concluding with a study of representative 20th and early 21st Century voices. Technical aspects of poetry will be discussed, as well as the cultural context and enduring nature of poetic expression within a specifically American idiom. Prerequisite: ENG 102. 3 lecture hours per week. 3 credit hours.

ENG 235 INTRODUCTION TO SHAKESPEARE

An introductory study of Shakespeare as poet and dramatist, with close reading of the representative plays. The enduring nature of Shakespeare's ideas is stressed. Prerequisite: ENG 102 or 122. 3 lecture hours per week. 3 credit hours.

ENG 245 WOMEN IN LITERATURE I

A study of major female characters in literature from ancient times to the 1900's. The main emphasis is an examination of the changing role of the female through the ages as reflected in literature. Consideration will be given to historical feminist articles in an effort to understand the changing role of the woman in society. Prerequisite: ENG 102 or 122. 3 lecture hours per week. 3 credit hours.

ENG 246 WOMEN IN LITERATURE II

A study of major female characters in great works of literature from the 1900's to present. The main emphasis will be an examination of the changing role of the female as reflected in novels and plays. Consideration will be given to contemporary feminist articles in an effort to understand the image of the woman's role in today's society. Prerequisite: ENG 102 or 122. 3 lecture hours per week. 3 credit hours.

ENG 279 SURVEY OF YIDDISH LITERATURE

A survey of Yiddish literature in English translation from Yiddish medieval romance through the "Classical" period (including Sholem Aleichem, I.L. Peretz and Mendele Mocher Sefarim) to the writers of the modern era. The literature will be studied in relation to the social background of each period. An analysis of the origin and development of the Yiddish language will also be included. Prerequisites: ENG 101 or 102 or permission of the instructor. 3 lecture hours per week. 3 credit hours.

ENG 270-289 THEMES IN LITERATURE

A study of the way one theme (or several related themes) finds embodiment in literature and of the way it influences literary form and structure. Works chosen for reading and discussion express intense concern for a theme such as the adolescent, violence, the hero, the artist as pariah, death, war, or the absurd. Prerequisite: ENG 102 or 122. 3 lecture hours per week. 3 credit hours.



ESL 012, 013, 014, 015 (BEGINNING)

Students learn basic English vocabulary and sentence structure. Simple conversation is developed. Beginning reading and writing skills are introduced. Prerequisite: ESL Placement Test. 12 lecture hours per week. 3 credit hours each.

ESL 022,023,024,025 (HIGH BEGINNING)

Students learn high beginning English vocabulary and sentence structure. Conversation, listening, basic reading and writing skills are further developed. Prerequisite: ESL Placement Test or successful completion of ESL 015. 12 lecture hours per week. 3 credits each.

ESL 032,033,034,035 (LOW INTERMEDIATE)

These courses develop low intermediate vocabulary, conversation, listening, and sentence structure. Intermediate reading and writing skills are developed. Prerequisite: ESL Placement Test, successful completion of ESL 025, or by the instructor's recommendation. 12 lecture hours per week. 3 credits each.

ESL 042,043,044,045 (INTERMEDIATE)

These courses further develop intermediate vocabulary, conversation, listening, and sentence structure. Intermediate reading and writing skills are emphasized. Prerequisite: ESL Placement Test, successful completion of ESL 035, or by the instructor's recommendation. 12 lecture hours per week. 3 credits each.

ESL 046 BIOGRAPHIES OF THE 20TH CENTURY

This course is part of the fourth level of instruction for students who have graduated from a U.S. high school and who have been designated for special assistance with reading, writing and academic English. The course content focuses on personalities of the 20th century who have made significant contributions in a variety of fields. Prerequisites: ESL 035 or placement into an ESL level four section designated for U.S. high school graduates. Corequisites: Project Succeed sections of ESL 042, ESL 043, ESL 044, ESL 045 (Project Succeed is a special section of ESL level four reserved for U.S. high school graduates who place into intermediate ESL.) 3 lecture hours per week. 3 credit hours.

ESL 054, 055 HIGH INTERMEDIATE ENGLISH FOR THE NON-NATIVE SPEAKER

These courses are part of the fifth level of ESL instruction. They cover (a) high intermediate level structure skills and (b) high intermediate level conversation and listening practice based on academic contexts and on study skills topics. The goal is to give students English language preparation to succeed at the college level and comprehensive introduction to the American college. Prerequisite: ESL 045 or ESL Placement Test. Corequisites: ESL 081 and ESL 091. 6 lecture hours per week. 3 credit hours each.

ESL 064, 065 ADVANCED ENGLISH FOR THE NON-NATIVE SPEAKER

These courses are part of the sixth level of instruction. They cover (a) advanced level structure skills with emphasis on the systems of the English language and (b) advanced level conversation and listening practice based on academic contexts and on study skills topics. The goals are to help students enhance their language proficiency in order to succeed at the college level. Prerequisite: ESL 055 or ESL Placement Test. Corequisites: ESL 082 and 092. 6 lecture hours per week. 3 credit hours each.

THE INSTITUTE FOR INTENSIVE ENGLISH

Non-native students whose tests indicate insufficient fluency in English are required to take courses for Speakers of Other Languages, offered in the Institute for Intensive English or ENG 111-112.

PROGRAM OF STUDY IN THE INSTITUTE FOR INTENSIVE ENGLISH

After an oral interview and a written examination to determine language proficiency, a student enters one of six sequential levels. During the final week of each semester, the student's ability is again measured. A student either advances to the next level or repeats the course if additional study is needed. Upon satisfactory completion of the sixth level, a certificate is awarded.



ESL 071 ADVANCED CONVERSATION AND CULTURE

This course reinforces and expands English communication skills in a conversational cultural setting. It meets the individual needs of advanced students of English as a Second Language. Prerequisite: ESL 045 or ESL Placement Test. 3 lecture hours per week. 3 credit hours.

ESL 080 AMERICAN ENGLISH PRONUNCIATION FOR ESL SPEAKER

This course provides instruction in the pronunciation of the unique aspects of spoken American English. The goal is increased oral/aural intelligibility and fluency. Prerequisite: ESL 025 or ESL Placement Test. 3 lecture hours per week. 3 credit hours.

ESL 081 READING I

This course is part of the fifth level of instruction. The purpose of the course is to acquaint students with American narrative and expository texts and to assist students in their written interaction with these texts. Prerequisite: ESL 045 or ESL Placement Test. Corequisites: ESL 054, ESL 055, ESL 091. 3 lecture hours per week. 3 credit hours.

ESL 082 READING II

This course is part of the sixth level of instruction. The course focuses on reading comprehension and fluency for academic purposes. Students read and respond to narrative and expository texts from multicultural sources. Prerequisite: ESL 081 or ESL Placement Test. Corequisites: ESL 064, ESL 065, ESL 092. 3 lecture hours per week. 3 credit hours.

ESL 083 ADVANCED READING IN BUSINESS FOR ESL

This course is paired with and serves as a support course for ESL level six students enrolled in a sheltered section of Business 101. The purposes of the course are (1) to give students practice in reading and responding to academic texts in the area of business as presented in expository texts and (2) to help students develop reading skills and strategies they can apply in other

academic work. Prerequisite: ESL 081 or ESL Placement Test. Corequisites: BUSE 101, ESL 064, ESL 065, ESL 092. 3 lecture hours per week. 3 credit hours.

ESL 084 ADVANCED READING IN PSYCHOLOGY FOR ESL

This course is paired with and serves as a support course for ESL level six students enrolled in a sheltered section of Psychology 101. The purposes of the course are (1) to give students practice in responding to expository texts, fiction and articles in the area of psychology and (2) to help students develop reading skills and strategies they can apply in other academic work. Prerequisite: ESL 081 or ESL Placement Test. Corequisites: PSYE 101, ESL 064, ESL 065, ESL 092. 3 lecture hours per week. 3 credit hours.

ESL 087 ADVANCED READING IN CHEMISTRY FOR ESL

This course is paired with and serves as a support course for ESL level six students enrolled in a sheltered section of Chemistry 005. The purposes of this course are to give students practice in (1) reading definitions of terms used in chemistry and paraphrasing them in English in their own words, (2) reading, comprehending, and responding to a standard chemistry academic text, (3) developing skills and strategies that apply to reading expository academic texts, (4) reading non-fiction books that are related to chemistry and chemical discoveries, and (5) researching topics related to chemistry on the Internet as well as traditional texts. Prerequisites: ESL 081 or ESL Placement Test, MAT 022 or equivalent, permission of instructors. Corequisites: CHE 005, ESL 064, ESL 065, ESL 092. 3 lecture hours per week. 3 credit hours.

ESL 091 WRITING I

This course is part of the fifth level of instruction. The purpose of the course is to develop in students the ability to express their concerns and experiences in clear, organized American English. Prerequisite: ESL 045 or ESL Placement Test. Corequisites: ESL 054, ESL 055, ESL 081. 3 lecture hours per week. 3 credit hours.



ESL 092 WRITING II

This course is part of the sixth level of instruction. Students write papers which range from the personal narrative to projects which incorporate information from a variety of sources. Prerequisite: ESL 091 or ESL Placement Test. Corequisites: ESL 064, ESL 065, ESL 082. 3 lecture hours per week. 3 credit hours.



FHR 101 CAREER ORIENTATION AND PROFESSIONAL DEVELOPMENT IN THE HOSPITALITY BUSINESS

This course provides an overview of various hospitality management career areas; defines professionalism; and investigates each student's specific interests in relation to these areas. Prerequisite: Completion of all required developmental work or acceptable scores on basic skills tests. 1 lecture hour per week. 1 credit hour.

FHR 102 PROFESSIONAL SKILL DEVELOPMENT: WORK EXPERIENCE

Students develop job acquisition, problem solving, interpersonal, stress and time management skills, and prepare for monitored work experience, generally in the following summer, of 400 hours. Prerequisite: FHR 101. 1 lecture hour per week. 1 credit hour.

FHR 103 MANAGEMENT VALUES AND PROFESSIONAL STANDARDS

Focuses on management and attitudes consistent with professional standards, and the manager's role in the business and community. Prerequisite: FHR 102. 1 lecture hour per week. 1 credit hour.

FHR 104 THE HOSPITALITY MANAGER AND LAW: WORK EXPERIENCE

Students examine various legal considerations in a professional hospitality management environment and prepare for a monitored work experience, generally in the following summer, of 400 hours. Prerequisite: FHR 103. 1 lecture hour per week. 1 credit hour.

FHR 105 MANAGERIAL CHALLENGES IN THE NEW WORKPLACE

This course focuses on the application of professionalism in the workplace, emphasizing contemporary issues, challenges and opportunities. 1 lecture hour per week. 1 credit hour.

FHR 204 PROPERTY MANAGEMENT

Students study the planning, design and management of hospitality facilities and systems. Competencies are developed in: theories of operations, property support systems, management of records and preventive maintenance routines, protection of public and employee comfort, health and safety, contemporary issues confronting facility managers, e.g., indoor air quality, ADA, safety training, energy and resource conservation, construction and renovation, land use planning, utility and engineering systems. 3 lecture hours per week. 3 credit hours.

FHR 225 CASINO MANAGEMENT

The student who successfully completes this course will have an understanding of the organization structure of key casino operating departments as well as an understanding of the positive and negative impact that a casino/hotel will have on urban society. The course material will consist of lectures, group discussions, hand-outs with a major emphasis placed on student participation. 3 lecture hours per week. 3 credit hours.

FHR 320 HOSPITALITY OPERATIONS

Examines many areas of the hospitality industry including tourism, hotel management, restaurant management, hospitality accounting, and human resource management. The course will look inside each of these areas and examine the components and systems that enable an operation to perform efficiently and effectively. Competencies are developed in: organizational structures of the food service and lodging industries, effective marketing and sales planning, and proper accounting systems. Classes will utilize various methods including lectures, experimental exercises, and presentation of student papers and case studies. 3 lecture hours per week. 3 credit hours.



FIA 103 FUNDAMENTALS OF MUSIC

The acquisition of basic music skills including learning to read music, playing simple instruments, conducting and teaching songs by note. This course should be of particular interest to those considering a career in elementary education. 3 lecture hours per week. 3 credit hours.

FIA 104 BASIC DESIGN

This studio art course using several mediums provides a practical and theoretical analysis of the elements of design (line, shape, color, texture, and value) in the image-making process. Additionally, this course examines the principles of organization and aesthetics that govern their interaction in a formal compositional setting. This course serves as an introduction and prerequisite to studio art and architecture courses. 3 lecture hours per week. 3 credit hours.



FIA 105 MUSIC APPRECIATION

Development of a greater sensitivity for the "Aesthetic Experience" through music. The emphasis is on discussions of and listening to classical, non-western and women composers in music. This course also includes discussions of and listening to rock and jazz, where appropriate. 3 lecture hours per week. 3 credit hours.

FIA 106 HISTORY OF MUSIC

Introduction to the development of different styles and periods of music. Discussions and listening illuminate differences and similarities of these various styles as well as their causes. A general look at how music reflects the period in which it was written provides a historical perspective. 3 lecture hours per week. 3 credit hours.

FIA 107 INTRODUCTION TO DANCE

Begins with the explanation of the elements of Modern Dance--time, space, and energy. During the last half of the semester these elements are applied to the fundamental study of ballet. The course is taught through basic studio movement (warm-up, technique, and dance phrases) and through concert attendance, readings, videotapes, lectures, and discussions. 3 lecture hours per week. 3 credit hours.

FIA 108 APPRECIATION OF ART

A lecture course examining the aesthetics of the visual arts. The course will focus in on the many ways to see and understand two and three dimensional art forms. Studies include painting, sculpture, drawing, photography, the crafts, and other visual expressions examined through formal, iconographic, and conceptual means. A variety of art will be covered ranging from western, eastern, African, feminist, and other alternative, culturally significant art forms. 3 lecture hours per week. 3 credit hours.

FIA 109 DRAWING I

Study of basic visual elements in drawing, emphasizing observation, selection, and recording of perceptual form. Value relationships, spatial organization, linear gesture, composition, and balance are explored using graphic media. 3 lecture hours per week. 3 credit hours.

FIA 110 PAINTING I

Exploration of the basic visual elements using painting media and techniques. 3 lecture hours per week. 3 credit hours.

FIA 111 HISTORY OF ART I

A historical and visual survey of art and architecture from prehistoric beginnings through the Medieval Period. Study includes aesthetic, cultural, historic, and formal examination of works of art in a chronological, evolutionary sequence. A considerable amount of time is spent focusing on diversity and multi-cultural issues that have defined and shaped the process of development historic to human creative activity. Lecture course with supplemental visual presentation. 3 lecture hours per week. 3 credit hours.

FIA 112 HISTORY OF ART II

A visual survey of art and architecture from the Gothic Period through the 19th Century. Study includes an aesthetic, formal, historic, and cultural examination of painting, drawing, sculpture, and architecture in a chronological, evolutionary sequence. Time is spent focusing on how issues of cultural diversity and gender define and shape creative activity. Lecture course with supplemental visual presentation. 3 lecture hours per week. 3 credit hours.

FIA 115 DRAWING II

Advanced drawing study using graphic media as a tool for expressive interpretation of the human figure and other visual problems. Study focuses on the tools, techniques, concepts, and approaches of two-dimensional image making. 3 lecture hours per week. 3 credit hours.

FIA 116 PAINTING II

Advanced study of painting concepts and technical processes involving light, shape, form, space, and composition. 3 lecture hours per week. 3 credit hours.

FIA 117 MUSIC IN THE TWENTIETH CENTURY

An examination of the development of Classical, Film, Musical Theater, Non-Western, Jazz and Rock music composed in the twentieth century, including Women, Latino, and African-American composers and their contribution to twentieth century music. 3 lecture hours per week. 3 credit hours.

FIA 119 HISTORY OF ARCHITECTURE I

This course examines the history of Western architecture from primitive building structures up to the Early Medieval period (c. 600-1000 AD). Included periods (and their related arts) are Egyptian, Greek, Roman, and Islamic. Student renderings from these and other periods will help visualize these structures in terms of architectural schema. 3 lecture hours per week. 3 credit hours.

FIA 120 HISTORY OF ARCHITECTURE II

This course examines the history of Western architecture from the Romanesque Period (c. 1000-1150) up to contemporary structures. Included periods are Gothic, Renaissance, Baroque and Rococo, neo-classical, art nouveau, deStijl, Bauhaus, International, and Post-Modernism. Student renderings and criticisms from these and other periods will help visualize these structures in terms of architectural schema. Prerequisite: FIA 119 or permission of instructor. 3 lecture hours per week. 3 credit hours.

FIA 121 ARCHITECTURAL GRAPHICS/PERSPECTIVE

Study of graphic styles used in architecture and development of perspective renderings of interior and exterior buildings. Prerequisite: FIA 109 or permission of instructor. 3 lecture hours per week. 3 credit hours.

FIA 202 GRAPHIC DESIGN I

An introductory design studio course which provides a basic vocabulary and fundamental understanding of the technique, concepts, and processes involved in the visual communication field of Graphic Design. Topics include a historic and contemporary examination of graphic communication, paste-up, layout, preparation of comps, roughs, and mechanicals, and an introduction to computers and design related software. Prerequisite: Basic Design or permission of instructor. 3 lecture hours per week. 3 credit hours.

FIA 203 MODERN DANCE

The study of three major modern dance styles focusing on technique and choreography. The course is designed to lead students to the development of their own movement style through studio dance, lecture, readings, concert attendance, videotapes, films, and discussions. Prerequisite: FIA 107 or permission of instructor. 3 lecture hours per week. 3 credit hours.

FIA 204 GRAPHIC DESIGN II

An advance course in graphic design that serves as a continuation of Graphic Design I. A more specific emphasis on beginning and advanced design problem solving is provided using learned graphic design skills. Study includes a more complete understanding of the graphic design production process including typesetting, typography and lettering, advanced use of computers and software duotone and four color production. Prerequisite: Graphic Design I or permission from instructor. 3 lecture hours per week. 3 credit hours.

FIA 205 INTRODUCTION TO DRAMA I

A study of the classics of European drama both as "text" and "event." Readings of selected masterworks together with active class participation in several modes of drama through scene study, criticism, improvisation, field trips and, for those interested, playwriting and directing. Readings include Aeschylus, the Elizabethans, and Moliere. Prerequisite: ENG 101. 3 lecture hours per week. 3 credit hours.

FIA 206 INTRODUCTION TO DRAMA II

A study of classics from the modern theater both as "text" and "event". Readings of selected masterworks together with active class participation in several modes of drama through scene study, criticism, improvisation, field trips and, for those interested, playwriting and directing. Readings include Ibsen, Shaw, Tennessee Williams, Harold Pinter, and others. Prerequisite: ENG 101. 3 lecture hours per week. 3 credit hours.

FIA 207 ACTING I

Basics of voice, movement, and interpretation. Development of imagination and observation leading to the ability to present these skills in all forms of dramatic presentations. Prerequisite: FIA 205 or FIA 206, or permission of instructor. 3 lecture hours per week. 3 credit hours.

FIA 208 ACTING II

Advanced work on developing voice, body, and imagination as components of the actor's "instrument". Discovering styles suitable for works from different periods and the relationship between the actor and the text. An examination of tradition and techniques of the principal modes of theater: tragedy, comedy, realism, fantasy, and farce. Prerequisite: FIA 207, or permission of instructor. 3 lecture hours per week. 3 credit hours.

FIA 209 ILLUSTRATION I

An introductory studio course which provides the student with a basic vocabulary and fundamental understanding of the concepts, techniques, and skills involved in the visual arts communication field of illustration. Along with a historic and contemporary examination of illustration, the student is taught to differentiate between product, journalistic, and advertising forms of illustration. Considerable time is spent on specific studio approaches to illustration including use of pencil and dry media, pen and ink, watercolor, oil, gouache, tempera, acrylic painting techniques and applied computer technology. Prerequisites: FIA 109 or FIA 110, or permission of instructor. 3 lecture hours per week. 3 credit hours.



FIA 210 ILLUSTRATION II

An advanced commercial art course in illustration that serves as a continuation of the Illustration I course. A more specific focus on beginning and advanced problem solving is provided using learned studio illustration skills. Study includes the preparation of black and white, three-color, and four-color illustrations and comps for various journalistic, product, and advertising purposes. Emphasis is on visualization, originality of expression, and concept/problem solving using applied computer technology. Prerequisites: FIA 109, or FIA 110 and FIA 209, or permission of instructor. 3 lecture hours per week. 3 credit hours.

FIA 220 HISTORY OF PHOTOGRAPHY

A course examining the history of photography from 1839 to the present. Emphasis is placed on a study of the evolution of photographic processes, art historical and sociological impact, trends and major artists. 3 lecture hours per week. 3 credit hours.

FIA 221 BLACK-AND-WHITE PHOTOGRAPHY I

An introduction to photography principles and practices including 35mm camera operation, film development, print processing, exposure technique, and some contemporary issues of photographic practice in the arts. Prerequisite: Students must have their own appropriate camera (or access to one). 3 lecture hours per week. 3 credit hours.

FIA 222 BLACK-AND-WHITE PHOTOGRAPHY II

An advanced black and white photography course with an emphasis on the zone system exposure and printing methods. Course includes an introduction to large format cameras and studio lighting. Prerequisite: FIA 221 or equivalent or permission of instructor. 3 lecture hours per week. 3 credit hours.

FIA 223 COLOR PHOTOGRAPHY

An introduction to color photography involving film exposure, print processing, color correcting and analysis, with an exploration of contemporary issues/techniques of color photography. Prerequisite: FIA 221 or equivalent or permission of instructor. 3 lecture hours per week. 3 credit hours.

FIA 224 DIGITAL IMAGING FOR ART AND PHOTOGRAPHY I

This course provides students with an introduction to the technical and creative aspects of manipulating photographic and digitally generated images in a Macintosh computer environment utilizing state of the art hardware and software. It is recommended that students complete study in either FIA 202 Graphic Design I or FIA 221 Black & White Photography I (or FIA 223 Color Photography) or COM 101 Mass Communications before enrolling in Digital Imaging for Art and Photography. 3 lecture hours per week. 3 credit hours.

FIA 225 ADVANCED DIGITAL IMAGING FOR ART AND PHOTOGRAPHY

This course provides students with advanced technical training in the field of digital imaging and an opportunity to apply learned skills to create digitally manipulated images from two-dimensional and three-dimensional photographic and computer generated sources. An integrated component of this course focuses on the use of "state of the art" digital hardware and software to output high resolution, exhibition quality, ink jet and dye sublimation images on a diversity of media. Students are required to complete study in Digital Imaging for Art and Photography I prior to enrollment in the Advanced Digital Imaging for Art and Photography course (or by securing special permission by the instructor). It is also recommended that students complete study in either FIA 202 Graphic Design I, FIA 221 Black & White Photography I (or FIA 223 Color Photography) or COM 101 Mass Communications before enrolling in Advanced Digital Imaging. 3 lecture hours per week. 3 credit hours.



FIM 201 FOOD MARKETING AND MERCHANDISING

Food Marketing and Merchandising provides an introduction to the food industry. Topics include the structure of the food industry, product and service categories, and regulations affecting food merchandising. Students will be introduced to store layout, buying and price management, advertising, and promotion, profitability, and potential career options. Prerequisites: BUS 105, BUS 208. 3 lecture hours per week. 3 credit hours.

FIM 202 ENVIRONMENTAL SANITATION IN FOOD SERVICE OPERATIONS

Techniques and procedures for employing hygienic practice in the food industry including food sanitation and microbiology, food spoilage and foodborne illnesses, and education and training in sanitation of food industry personnel. Government regulations, as they pertain to the food industry, will be studied. 3 lecture hours per week. 3 credit hours.

FIM 203 FOOD DISTRIBUTION SALES AND PRODUCTION

The course focuses on the production as well as the dimensions of channel structure functions of leadership, formulation of channel roles, and marketing logistics. The description and analysis of customer service, logistical cost, and system planning and management are discussed. Topics include transportation, warehousing and handling inventory management, and order processing. The physical and information flows involved in moving food allied products from origin to destination. Discussions include management of the sales force, including structuring and allocation territories, setting quotas, administering the sales force, sales training, and motivation. The role of modern information systems technology in managing the sales force will be assessed. Prerequisite: FIM 201. 3 lecture hours per week. 3 credit hours.

FIM 204 FOOD MANAGEMENT CO-OP

This course enables the student to learn and practice food marketing skills under professional guidance in a college approved work environment. The student's work is supervised by a trained faculty member. Students must work a minimum of 180 hours for the semester and attend the weekly seminar. Prerequisites: FIM 202, FIM 203. 1 lecture and 12 clinical hours per week. 3 credit hours.

FIM 205 ISSUES AND PROBLEMS IN FOOD INDUSTRY MANAGEMENT

Strategic food issues and problems including the strategic basic aspects of food marketing and management are discussed. As the capstone course of the Food Industry Management Program, this course integrates theoretical concepts from a variety of business administration fields with current issues and problems in the food industry. Prerequisites: FIM 202, FIM 203. 3 lecture hours per week. 3 credit hours.



FMG 100 FOOD AND BEVERAGE MANAGEMENT

The course emphasizes the food and beverage concepts essential to all hospitality managers. Areas such as menu planning, beverage operations, food production systems, food service, and delivery systems are studied. Prerequisites: FHR 101, ACC 103. Corequisite: FHR 102. 3 lecture hours per week. 3 credit hours.

FMG 101 FOOD PRODUCTION SYSTEMS AND EQUIPMENT/ FOOD SERVICE SYSTEMS

Design and organization for storage; preparation, and cooking and service in restaurants; quick service, retailing, beverage, commissary, institutional applications are discussed. Specific work systems are discussed with an emphasis on equipment specification, planning for efficiency and effectiveness, organization of personnel, and integrating management concepts. Design and organization of service and delivery including a la carte dining rooms, cafeterias, quick service outlets, vending, beverage units, etc. are discussed. Organizing principles for service staff, equipment, serviceware, furniture and fixtures are emphasized. Prerequisite: FHR 101. Corequisite: FHR 103. 3 lecture hours per week. 3 credit hours.

FMG 102 QUANTITY FOOD PRODUCTION OPERATIONS/ RESTAURANT OPERATIONS

The management of volume food production in catering, healthcare, institutional, commissary, and airline applications are discussed. Menu and production planning and organization, control, analysis and performance improvement are emphasized. Management of food production and food service in ala carte restaurants: management activities in planning, personnel organization, preparation and cooking systems, service and control are stressed. Specific operations are examined in order to develop the organizing concepts of ala carte restaurants. Prerequisites: FHR 103, FMG 101. Corequisite: FHR 104. 1 lecture hour per week.



1 credit hour.

**FRE 101
BEGINNING FRENCH I**

Development of the fundamental skills of understanding, speaking, reading, and writing. Listening practice available. NOT open to native French speakers. Prerequisite: ENG 088. 3 lecture hours per week. 3 credit hours.

**FRE 102 BEGINNING
FRENCH II**

A continuation of FRE 101. NOT open to native French speakers. 3 lecture hours per week. 3 credit hours.

**FRE 111 INTERMEDIATE
FRENCH I**

Review of fundamental skills of understanding, speaking, reading and writing. Not generally open to native French speakers. Prerequisite: FRE 101, FRE 102 or 2 years high school French. 3 lecture hours per week. 3 credit hours.

**FRE 112 INTERMEDIATE
FRENCH II**

A continuation of FRE 111. Not generally open to native French speakers. Prerequisite: FRE 111. 3 lecture hours per week. 3 credit hours.

**FRE 115 FRENCH CULTURE
AND CIVILIZATION
(FOREIGN STUDY)**

A comprehensive survey of French culture and civilization including geographical, social, and economic factors. The achievements in painting, sculpture and architecture will be examined. This course is offered in conjunction with a trip to France or French Canada and fulfills one semester of the French Modern Language requirement. 3 credit hours.

**FRE 121 ADVANCED
FRENCH I**

Further development of skills in reading, composition and conversation. Prerequisites: FRE 111-112, 3 years high school French or its equivalent. 3 lecture hours per week. 3 credit hours.

**FRE 122 ADVANCED
FRENCH II**

A continuation of FRE 121. Prerequisite: FRE 121. 3 lecture hours per week. 3 credit hours.

**FRE 215 HISTORY OF
FRENCH FILM**

A survey of the major periods in the evolution of French film from the silent era through the New Wave to the present, with an emphasis on the major filmmakers: Renoir, Truffaut, Godard. The place of French film in the social and political history of the twentieth-century France will be explored. Prerequisites: ENG 102 or 122. 3 lecture hours per week. 3 credit hours.

**FST 102 BUILDING
CONSTRUCTION**

This course provides professional fire service personnel and individuals in related fields with an understanding of the basic principles of building construction. It presents background information concerning the national and local building codes, the national fire codes and how they affect modern design and building construction. It relates these principles to practical problems of the fire service. Prerequisite: ENG 098. 3 lecture hours per week. 3 credit hours.

FST 103 FIRE PROTECTION

An introductory course designed to examine general aspects of fire protection. Students study the behavior of fire, the extinguishing agents used in suppressing fire, and the strategies used to prevent fires. The roles of public and private fire protection services are also analyzed. 3 lecture hours per week. 3 credit hours.



FST 105 FIRE PREVENTION

A study of the basic principles of fire prevention and inspection with emphasis on the recognition of fire hazards in commercial and in industrial occupancies, the various protection systems dealing with these hazards, the use of practical test facilities, and the enforcement of building laws, fire ordinances, and municipal codes. Prerequisite: ENG 098. 3 lecture hours per week. 3 credit hours.

FST 106 FIRE FIGHTING TACTICS

An examination of the tactical capabilities and limitations of company-level operations at emergency incidents. Particular attention is given to the operation of the basic tactical units of fire departments: Engine, Ladder, and Rescue companies. 3 lecture hours per week. 3 credit hours.

FST 107 HAZARDOUS MATERIALS

A course for professional fire and safety personnel concerned with hazards found in industry and techniques used to control them. A study of the use, proper storage, and transportation of hazardous materials, with particular emphasis placed on safety measures to be followed when handling these materials at a fire or other emergency. 3 lecture hours per week. 3 credit hours.

FST 108 FIRE HYDRAULICS

This course provides fire protection personnel and professional firemen with an understanding of the properties, principles, and concepts of fluid materials, particularly water. The course presents a background of the basic properties of fluids, pressures, flows, pumps, and practical applications. Prerequisites: ENG 088, ENG 098, MAT 011. 3 lecture hours per week. 3 credit hours.

FST 109 FIRE PROTECTION SYSTEMS

Introduction to fire detection and suppression devices. The design, operation and maintenance of, and code requirements for, the various systems are examined, with special emphasis on the special problems created by hazardous occupancies. Prerequisites: ENG 088, ENG 098, MAT 011. 3 lecture hours per week. 3 credit hours.

FST 111 FIRE CAUSES AND DETECTION

The course will provide the student with an understanding of the history, development, and philosophy of fire investigation and detection; the gathering of evidence and development of technical reports; and the processing of criminal evidence and examination of criminal procedures as they relate to arson investigation. Prerequisites: ENG 088, ENG 098, MAT 011. 3 lecture hours per week. 3 credit hours.

FST 112 EMERGENCY RESCUE OPERATIONS

Students are instructed in various aspects of rescue operations. Topics of discussion include: responsibilities of the officer in command, the use of specialized rescue tools and equipment, problems of vehicle rescue, and techniques for handling casualties. Prerequisites: ENG 088, ENG 098. 3 lecture hours per week. 3 credit hours.

FST 113 FIRE DEPARTMENT ORGANIZATION AND MANAGEMENT

The course provides the student with the basic concepts of management and organization of fire departments. It examines the structure and types of fire department organizations, the functions of the manager, and the role of leadership. Prerequisites: ENG 088, ENG 098. 3 lecture hours per week. 3 credit hours.

FST 114 LEGAL ASPECTS OF FIRE PROTECTION

A study of legal rights and obligations, liability concerns and responsibilities involving fire department organizations carrying out their duties. 3 lecture hours per week. 3 credit hours.

FST 115 INSURANCE GRADING SCHEDULES

This course develops an understanding of all aspects of fire insurance. A major emphasis includes its function, type of carriers, provisions, and how rating systems are established. Additionally, it examines handling of risk and settlement claims. 3 lecture hours per week. 3 credit hours.

FST 116 FIRE SAFETY CODE

A study of the history and development of codes, with emphasis on the nature and scope of legal statutes and related codes in fire protection control. Prerequisites: ENG 088, ENG 098, MAT 011. 3 lecture hours per week. 3 credit hours.

FST 119 INCIDENT COMMAND

A study of the command and control of operations at major incidents or disasters. The role of the fireground or incident commander is stressed: major features include central control over and coordination of human and material resources with particular recognition given to the safety of fire personnel and disaster victims. Prerequisite: FST 106. 3 lecture hours per week. 3 credit hours.

FST 218 FIREGROUND STRATEGIES AND CONCEPTS

A study of the advanced tactical procedures and underlying strategic concepts required for effective operations at emergency incidents. Emphasis is on multi-unit and special emergency operations. Prerequisite: FST 106. 3 lecture hours per week. 3 credit hours.



GDP 101 FUNDAMENTALS OF GAME DESIGN

This course covers the many aspects of game design. The course explains the process of how a game is designed and developed from the original concept through its distribution. Other topics included in the course are fundamental rules of good game design, basic storytelling, understanding the importance of game design development teams, and incorporating external resources to complete the game. Prerequisites: ENG 089 and ENG 099. 3 lecture hours per week. 3 credit hours.

GDP 110 GAME DESIGN AND DEVELOPMENT I

This course provides students with the basics of game design. Students will be familiar with videogames, computer games, and just plain games. Students will have the opportunity to learn about a variety of games from non-computer games – *Monopoly* to *Diplomacy* – to computer games. Topics include the four essential elements of game design: imagining a game, defining the way that it works, describing its internal elements, and communicating this information to others. Prerequisites: ENG 089, ENG 099. 3 lecture hours per week. 3 credit hours.

GDP 115 THE BUSINESS OF GAMING

This course covers many aspects about the business of game development including new media and intellectual property. Students learn about legal issues that concern the game industry. Some of these issues are choosing a business entity to finance, human resources, intellectual property protection, publishing contract negotiation, and licensing. This course will help students become more efficient in the game development industry. Prerequisites: ENG 089 and ENG 099. 3 lecture hours per week. 3 credit hours.

GDP 201 PRINCIPLES OF ANIMATION

This course provides students with animation techniques. Students will learn facial animation, cloth simulation, animation blending, soft body mesh deformation. Prerequisites: ENG 101, GDP 110, MAT 119. 2 lecture and 2 laboratory hours per week. 3 credit hours.

GDP 210 GAME DESIGN AND DEVELOPMENT II

This course provides students with the basic mechanics of building a double buffered sprite engine and the ability to write their own games using Visual Basic along with Windows API routines and DirectX. Students will learn about the game engine and how it is used as well as interactivity. Prerequisites: GDP 110, CIS 130, MAT 119. 2 lecture hours and 2 laboratory hours per week. 3 credit hours.

GDP 215 3D GAME PROGRAMMING

This course provides students with the fundamentals of 3D Programming using Maya 5. Students will explore topics such as lighting, materials, particles and dynamics, character animation, rendering and using paint effects. Another topic covered is the modeling technique, NURBS which is Non-Uniform Rational B-Splines. Prerequisites: GDP 210. 2 lecture and 2 laboratory hours per week. 3 credit hours.

GDP 280 GAME DEVELOPMENT PORTFOLIO

In this course students will develop their own games from design to completion. Students will be using the practical skills that they learned in previous courses in game development. This portfolio can then be used by students looking for employment. Prerequisite: Completion of all third semester courses and a GPA of at least 2.0. 3 credit hours.



GEO 201 WORLD GEOGRAPHY

This course is an introduction to the physical and political geography of the world. It explores how the physical features, natural resources, and climate connect with economics and politics to shape the various human cultures on this planet. The major world geographic regions are explored. Corequisite: ENG 101. 3 lecture hours per week. 3 credit hours.



GER 101 BEGINNING GERMAN I

Development of the fundamental skills of understanding, speaking, reading and writing. Listening practice available. Prerequisite: ENG 088. 3 lecture hours per week. 3 credit hours.

GER 102 BEGINNING GERMAN II

A continuation of GER 101. 3 lecture hours per week. 3 credit hours.

GER 105 CONVERSATIONAL GERMAN I

Development of ability to communicate orally in German. The course stresses the development of aural-oral skills through conversation based on topics of everyday life. Students who wish to take German 105 must have completed two years of high school German or German 102, or must have the permission of the instructor. Fulfills one semester of the foreign language requirement. Not open to native German speakers. Prerequisites: ENG 088, ENG 098. 3 lecture hours per week. 3 credit hours.



GEY 101 PHYSICAL GEOLOGY

Study of the origin and nature of rocks and minerals, volcanism and metamorphism, surficial processes of erosion and deposition; problems of water supply and pollution. One or more all day field trips may be required in lieu of some regularly scheduled lab sessions. 3 lecture and 3 laboratory hours per week. 4 credit hours.

GEY 102 HISTORICAL GEOLOGY

Study of structural geology and sedimentation, evolution of continents and ocean basins; evolution of animals and plants, plate tectonics and continental drift; man's place in evolution. One or more all day field trips may be required in lieu of some regularly scheduled lab sessions. 3 lecture and 3 laboratory hours per week. 4 credit hours.

GEY 121 PHYSICAL GEOLOGY

GEY 101 without the laboratory component. This course will not fulfill a college laboratory science requirement. Permission of Department Chair required. 3 lecture hours per week. 3 credit hours.

GEY 122 HISTORICAL GEOLOGY

GEY 102 without the laboratory component. This course will not fulfill a college laboratory science requirement. Permission of Department Chair required. 3 lecture hours per week. 3 credit hours.

GEY 270-299 TOPICS IN GEOLOGY

Studies in an area of the geological sciences. A specialized topic, announced during the prior semester, will be chosen in an area of geology that is of interest or use to students and the general public. Guest lecturers from geology and other disciplines may be involved. Methods of instruction may include lectures by faculty and students, seminar discussions, field trips and visits to museums and other institutions. 1, 2, or 3 credits are offered depending on hours and course format.

GEY 290 INDEPENDENT STUDY IN GEOLOGY

A one semester course to cover an approved in-depth exploration of some aspect of Geology. The course is intended to provide the student with an opportunity to expand his or her knowledge in one area beyond that which is presently offered in current Geology courses. This course will not fulfill a laboratory science requirement and requires the recommendation and permission of the Department Chair or instructor as a prerequisite for registration. It is recommended that the student have at least two semesters of college Geology. 1, 2, 3 or 4 credits.



GOV 105 INTRODUCTION TO CONTEMPORARY GOVERNMENT AND POLITICS

An introduction to the basic concepts of government and politics through analyses of current political events. It is designed to help prepare students for sophomore level courses, particularly in government. Basics of research and writing in this area are covered. Prerequisite: ENG 087. 3 lecture hours per week. 3 credit hours.

GOV 201 AMERICAN GOVERNMENT AND POLITICS

Comprehensive analysis of American political institutions on the federal, state, and local levels. Study of the U.S. Constitution, federalism, public opinion, political parties, elections, pressure groups, and the role of the citizen in the American political process. Prerequisites: ENG 089, ENG 099. 3 lecture hours per week. 3 credit hours.



GOV 202 AMERICAN NATIONAL GOVERNMENT

Comprehensive analysis of the organization, functions, and administration of the American national government, Study of the Presidency, the Congress, the Judiciary, civil rights and civil liberties, constitutional law, domestic and foreign policy. Prerequisites: ENG 089, ENG 099. 3 lecture hours per week. 3 credit hours.

GOV 203 URBAN GOVERNMENT AND POLITICS

An investigation of urban government and politics, and those political structures, forces, and issues that particularly affect the urban community. Topics include machine politics, the politics of reform, the service challenge, and civil disorders. Prerequisites: ENG 089, ENG 099. Corequisite: GOV 201 or GOV 202. 3 lecture hours per week. 3 credit hours.

GOV 204 PUBLIC ADMINISTRATION

An analysis of government utilization of human and material resources in developing and executing public policy. Concepts examined include bureaucracy, leadership, decision making, personnel and fiscal management. Prerequisites: ENG 089, ENG 099. Corequisite: GOV 201 or GOV 202. 3 lecture hours per week. 3 credit hours.

GOV 205 COMPARATIVE GOVERNMENTS

This course provides a traditional introduction to the comparative analysis of political systems. It focuses on governmental institutions and processes. Case studies include the United Kingdom, France, Germany, and Russia, as well as non-Western states. Prerequisite: ENG 101. Corequisite: GOV 201 or GOV 202. 3 lecture hours per week. 3 credit hours.

GOV 207 INTERNATIONAL POLITICS

This course provides a traditional introduction to international politics. The nature of the state system, national power, national interest, war, the rise and collapse of the Soviet Union, the United Nations, and the impact of the so-called Third World are considered. Prerequisite: ENG 101. Corequisite: GOV 201 or GOV 202. 3 lecture hours per week. 3 credit hours.

GOV 208 NEW JERSEY GOVERNMENT AND POLITICS

An analysis of state and urban government with emphasis on New Jersey; local and political problems of the state; governmental organization; the relations of the state with units of local government. Prerequisites: ENG 089, ENG 099. 3 lecture hours per week. 3 credit hours.

GOV 210 SEMINAR ON THE THIRD WORLD, THE UNITED NATIONS, AND INTERNATIONAL LAW

This seminar examines the emergence of the non-Western world since the end of World War II. The role of the United Nations, particularly with regard to issues of decolonization, is discussed, as well as the impact these newly independent states have had on the development of international law. Prerequisites: ENG 101 and GOV 202 or GOV 207. 3 lecture hours per week. 3 credit hours.

GOV 215 WOMEN AND AMERICAN POLITICS

Through an examination of our nation's changing attitudes towards women, their evolving roles in society and current events, the students will come to understand the relationship between gender and politics. The course will examine the roles played by women in our democracy and how they affect the American experience. The distinction between men and women in the political context continues despite the gains women have made in this area. Prerequisite: GOV 201 or GOV 202. 3 lecture hours per week. 3 credit hours.

GOV 216 WOMEN AND THE JUSTICE SYSTEM

The laws of any society are a codification of contemporary values and beliefs. The students will examine legal history and the changing roles of women in society. This includes an examination of the daily challenges women face and the treatment women receive once they have become involved in the justice system (both civil and criminal). It is designed to explore Constitutional, familial, educational, employment and criminal issues. Prerequisite: GOV 201 or GOV 202. 3 lecture hours per week. 3 credit hours.

GOV 270-289 ISSUES IN GOVERNMENT

Selected problems and topics in government and politics are viewed from the perspective of the perennial questions underlying political science. Topics are chosen in accord with the interests of the entire community and their professional suitability. These courses are of a nature so specialized or timely that they can best be offered not on a regular scheduled basis, but rather periodically. Individual topics are announced prior to registration; one, two, or three credits are offered depending on hours and course format. With permission of instructor. Prerequisites: ENG 089, ENG 099.



HIS 091 CONTEMPORARY AMERICAN ISSUES

Conducted within the general framework of American history, this course emphasizes a topical approach to contemporary American issues. These issues form the bases for readings and discussions. Working back into time, the historic origin and development of these issues and their interaction with the total social milieu are explained and analyzed. Prerequisite: ENG 087. 3 lecture hours per week. 3 credit hours.

HIS 101 INTRODUCTION TO WESTERN CIVILIZATION I

This course examines the history of Western Civilization from ancient times to about 1600. It covers the development of the Greek, Roman, Medieval, and Early Modern civilizations. Political, economic, social, religious, and cultural factors are considered. Prerequisites: ENG 088, ENG 098. 3 lecture hours per week. 3 credit hours.

HIS 102 INTRODUCTION TO WESTERN CIVILIZATION II

This course continues the exploration of Western Civilization from the early modern period to the present. It discusses such topics as absolutism, constitutionalism, modern science, revolution, industrialization, colonialism, world wars, totalitarianism, the Cold War, and the forming of a new global civilization. Political, economic, social, religious, and cultural factors are considered. Prerequisites: ENG 088, ENG 098. 3 lecture hours per week. 3 credit hours.

HIS 103 INTRODUCTION TO WORLD HISTORY I

A study of the major elements of world history from ancient times to 1500. Attention is given to prehistoric humans; the irrigation societies of Mesopotamia, Egypt, and India; the classical civilizations of Greece, Rome, India, and China; the later cultures of Byzantium, Islam, East Asia, Africa, the Americas, and Europe. Students may take this course, with its more global emphasis, instead of HIS 101 in any program where HIS 101 is required. Students will not, however, earn credit for both HIS 101 and this course. Prerequisites: ENG 088, ENG 098. 3 lecture hours per week. 3 credit hours.

HIS 104 INTRODUCTION TO WORLD HISTORY II

A study of the major elements of world history from 1500 to the present. Attention is given to the Protestant Reformation, the Enlightenment, the rise of absolutism, the impact of revolution, democracy and nationalism, the world wars, and challenges faced by contemporary humankind in an age of global interdependence. Students may take this course with its more global emphasis, instead of HIS 102 in any program where HIS 102 is required. Students will not, however, earn credit for both HIS 102 and this course. Prerequisites: ENG 088, ENG 098. 3 lecture hours per week. 3 credit hours.

HIS 105 AFRO-AMERICAN HISTORY I

A history of Black people from their advent in the new World to the Civil War. The African heritage and its contributions to the development of African-American culture are considered along with the slave trade and the effects of the institution of slavery. Also included are the early struggles for emancipation, resistance to slavery, the Abolitionist movement viewed from both the black and white perspective, the reasons behind the Emancipation proclamation, and the impact of the Civil War on American society. In order to satisfy degree requirements, students may substitute this course for HIS 101 or HIS 201 with the approval of the Department Chair. Prerequisites: ENG 088, ENG 098. 3 lecture hours per week. 3 credit hours.



HIS 106 AFRO-AMERICAN HISTORY II

A history of Black People from the Reconstruction to the present. The promise and disappointment of freedom in the post-Civil War world and the emergence of the new black leadership in the struggle for equality and dignity are considered. From Booker T. Washington's cooperative approach to the present militancy, the student studies the forces that are shaping the emergence of Black People as full participants in American Life in the twentieth century. In order to satisfy degree requirements, students may substitute this course for HIS 102 or HIS 202 with the approval of the Department Chair. Corequisite: ENG 088, ENG 098. 3 lecture hours per week. 3 credit hours.

HIS 201 UNITED STATES HISTORY TO 1865

An examination of colonial foundations, the struggle for independence, and the early life of the Republic up to the Civil War. Political, economic, social and intellectual factors are considered. Prerequisites: ENG 089, ENG 099. 3 lecture hours per week. 3 credit hours.

HIS 202 UNITED STATES HISTORY SINCE 1865

An examination of the life of the nation from Reconstruction to the current era. Attention focuses on political, diplomatic, economic, social, and intellectual developments. Prerequisites: ENG 088, ENG 099. 3 lecture hours per week. 3 credit hours.

HIS 205 ENGLISH HISTORY FROM 1600 TO THE PRESENT

A study of the major political, economic, social and cultural events and issues from the end of the Tudor period to the present. Emphasis is on the unification of the national state, the growth of parliamentary democracy and its effects on the American Revolution, the Industrial Revolution, the growth and decline of the Empire, the Welfare State, and the entrance into the Common Market. Prerequisites: ENG 089, ENG 099. 3 lecture hours per week. 3 credit hours.

HIS 209 TWENTIETH CENTURY EUROPEAN HISTORY

An examination of the economic, social, and political trends of the twentieth century. The focus is on Europe, but attention is also given to the impact of the two world wars and their after-effects on the rest of the world. Prerequisites: ENG 089, ENG 099. 3 lecture hours per week. 3 credit hours.

HIS 215 THE AMERICAN EXPERIENCE IN THE TWENTIETH CENTURY

An investigation of twentieth century America covering major events, trends, and ideas. Flexibility within the course permits focusing on themes of special interest such as the Great Depression, Urbanization, the Cold War, the Counter-culture, and the complexities of current national life. Prerequisites: ENG 089, ENG 099. 3 lecture hours per week. 3 credit hours.

HIS 270-289 TOPICS IN HISTORY

Studies of selected events, personalities, and issues in history, stressing interpretation and historical methods. Topics are chosen on the basis of their impact on succeeding generations and their connection with present concerns. These courses are of a nature so specialized or timely that they can best be offered periodically rather than on a regular scheduled basis. Individual topics are announced prior to registration; one, two or three credits are offered depending on hours and course format. With permission of instructor. Prerequisites: ENG 089, ENG 099.

HIS 270 THE CLASSICAL HERITAGE OF GREECE AND ROME

An introduction to Greek and Roman history and culture through on site visitations in Sicily and Rome. Sicily has more extant Greek temples than are found in modern day Greece. Rome is a treasure trove of history for any age since the days of the early Roman republic. Personal experiences and guided readings link the present with the past in this exciting course. Prerequisites: ENG 089, ENG 099. 3 lecture hours per week. 3 credit hours.

HIS 279 NEW JERSEY HISTORY

This course covers the history of New Jersey from early exploration and settlement to the present, with more emphasis on the origins and establishment of New Jersey as a colony and a state, and the role the state has played in the development of the nation. The historical background will serve as a springboard for the study of the 19th and 20th century industrial growth that would make New Jersey one of the most influential states in the nation. Prerequisites: ENG 088, ENG 099. 3 lecture hours per week. 3 credit hours.

HIS 281 THE ERA OF THE AMERICAN REVOLUTION

This course is designed as an examination of the people, events, meaning, and impact of the American Revolution. It will undertake an analysis of the transformation of the imperial debate in the mid-eighteenth century between Great Britain and her North American colonies into a political movement that led to resistance, armed rebellion, and ultimately to the creation of the American republic. The course will also explore the military and political events within the context of the cultural, economic, and social developments of the period. Throughout the course students will assess the meaning and legacy of the American Revolution for both contemporaries and for our society today. Prerequisite: HIS 201. Students who register for this course will have earned a grade of B or better in HIS 201. 3 lecture hours per week. 3 credit hours.

HIS 290 INDEPENDENT STUDY

A special research or development project or a course not currently offered in the Economics/Government/History Department. Reserved for the advanced student with individual needs. With permission of instructor. 2 credit hours.



HIT 101 HEALTH CARE ORGANIZATION

A study of the historical development and current characteristics of health care in the United States. This course is designed to provide an understanding of the health care environment and the multiple factors that define the system including the roles of health care professionals within the system. Prerequisite: College-level English and Reading. 2 credit hours.

HIT 102 INTRODUCTION TO HEALTH INFORMATION MANAGEMENT

This course is designed to introduce the development and content of medical records in acute care facilities. Topics include quantitative analysis, accreditation and certification standards, record retrieval and retention, microfilming systems, indexes and registries, and medical staff organization. Prerequisite: Admission into the Health Information Technology Program which includes: College level English, Reading and Math, minimum grade of 'C' in ENG 101, BS 103 and HIT 101. 4 credit hours.

HIT 106 LEGAL ASPECTS OF HEALTH INFORMATION MANAGEMENT

A study of the importance of medical records as legal documents. Includes the legal aspects of hospitals and medical staff organization, release of information and legal actions requiring evidence from medical records. Prerequisite or Corequisite: HIT 102. 3 credit hours.

HIT 201 ICD-9-CM CODING

This course focuses on disease and procedural coding with major emphasis on ICD-9-CM coding. Includes practical application of coding inpatient and outpatient records. Includes coding practice in prospective payment and computerized encoding. Prerequisites: HIT 102, HIT 104, HIT 105, BS 104. Corequisite/Prerequisite: BUS 205 or Permission of Instructor. 4 credit hours.

HIT 202 SUPERVISION AND MANAGEMENT IN HEALTH CARE

An application of the principles of management to health information management. Includes discussion of the management functions of planning, organizing, controlling, and staffing a health information management department. Prerequisites: HIT 105, BUS 222. 2 credit hours.

HIT 204 HEALTH RECORDS IN ALTERNATE CARE SETTINGS

This course provides instruction regarding the development and retention of health records in ambulatory care, psychiatric, long-term care, home health care and mental health care facilities. Course content includes licensure and accreditation stands and record format. Prerequisites: HIT 102. 2 credit hours.



HUD 103 TEXT AND DISCOURSE ANALYSIS FOR INTERPRETING

This course will focus on text and discourse analysis of American Sign Language and English in different registers/styles. Processes of text and discourse analysis, semantics, and pragmatics, Sociolinguistics, structures of ASL and English discourse will be discussed and applied. Application of prerequisite skills for interpreting are enhanced. The course will take an in-depth look at discourse through selected written texts, videotapes and live demonstrations. Lectures and videotapes will be used for skill development in text and discourse analysis and students will practice and apply discourse structures and semantics/pragmatics in ASL and English. Pre- or Co-requisites: HUD 105, ASL 202, and ASL 208 or permission of instructor. 2 lecture hours, 3 class laboratory hours per week. 3 credit hours.

HUD 104 FINGERSPELLING

This course is designed to advance students on the skill development of hand configuration, basic word patterns, rhythm, comprehension of fingerspelled words, phrases, and numbers. Additional focus will be placed on fingerspelled loan signs. Prerequisites: ASL 101/102. Co-requisites: ASL 103 & 104. ½ lecture hours and 1½ class laboratory hours per week. 1 credit hour.

HUD 105 INTERPRETING PROCESSES: THEORY AND PRACTICE

A survey course introducing theories, principles, and practices of interpreting for Deaf persons. The course covers interpreting processes, physical and mental factors, attitudes, ethics, roles of the interpreter, perspectives of the consumers (deaf and hearing), and NIC (RID-NAD) certifications. Prerequisite skills for interpreting will be introduced in this course through instruction for application in interpreting. Students are exposed to basic interpreting situations in a variety of settings through field observations and through use of videotapes. Prerequisites: ASL 201 & ASL 205 or permission of instructor. 3 lecture hours per week and 25 field observation hours. 3 credit hours.

HUD 106 ENGLISH TO AMERICAN SIGN LANGUAGE INTERPRETING

A review of theoretical components and principles of interpreting processes discussed in Interpreting Process: Theory and Practice (HUD 105) for application towards basic skill development in interpreting and transliterating from ASL/Signed English to spoken English. Theories and techniques of public speaking are discussed and applied. Strategies for effective comprehension and text analysis are discussed and practiced. Skill development application will be conducted within class. 12 hours of field observation on specific aspects of ASL to English interpreting will be required. Prerequisites: ASL 202, HUD 103, and HUD 105. 2 lecture hours, 3 class laboratory hours per week and 12 field observation hours. 3 credit hours.

HUD 108 AMERICAN SIGN LANGUAGE TO ENGLISH INTERPRETING

A review of theoretical components and principles of interpreting processes discussed in Interpreting Process: Theory and Practice (HUD 105) for application towards basic skill development in interpreting and transliterating from spoken English to American Sign Language/Signed English. Strategies for effective listening skills, text analysis, conceptual accuracy and linguistics factors of sign language will be discussed and applied. Classroom practice is provided. 12 hours of field observation on specific aspects of sign to voice interpreting will be required. 12 Lab hours are required. Prerequisites: ASL 202 and HUD 105 and demonstration of proficiency via examination. 2 lecture hours, 3 class laboratory hours per week and 12 field observation hours. 3 credit hours.



HUD 109 PREVENTIVE MEASURES AGAINST CUMULATIVE TRAUMA DISORDERS IN INTERPRETING

This course will give sign language students and interpreters information and tools that may help prevent and manage cumulative trauma disorders (CTD). The course will cover an orientation and survey of issues related to CTD among sign language interpreters; factors that can lead to symptoms of overuse; preventive and management techniques to help reduce the likelihood of developing overuse symptoms; management techniques for dealing effectively with existing symptoms due to overuse. Prerequisite: HUD 105 or permission of instructor. 1 lecture hour, 2 class laboratory hours per week. Class meets for 7 sessions (bi-weekly). 1 credit hour.

HUD 110 INTERPRETER ROLE AND ETHICS

This course will provide exploration of ethical standards and dilemmas in interpretation through discussion, case studies, scenarios and role-plays emphasizing the dynamics of the interpreting team and similarities and differences between advocates, peer counselors, and interpreters. Emphasis are on values, ethics, and morality; professional principles, power and responsibility; group dynamics; and decision making. RID-NAD's Code of Ethics are discussed, practiced and applied in role-plays and scenarios. Prerequisites: HUD 105 and HUD 103 or permission of instructor. 3 lecture hours per week. 3 credit hours.

HUD 215 ADVANCED TECHNIQUES OF INTERPRETING

This course is a classroom practicum to provide more in-depth skill and technique development in interpreting and transliterating and introduces students to specialty interpreting situations: education and technical, medical, mental health, legal, oral, deaf-blind, etc. Strategies for enhancing professional attitudes and ethical behaviors in interpreters, team interpreting and working with Deaf interpreters are discussed. This course is highly interactive with lectures and group discussions as part of the instructional approach. Prerequisites: HUD 105 and 108. 1 lecture hour and 2 class laboratory hours per week. 2 credit hours.

HUD 216 FIELD EXPERIENCE IN INTERPRETING

90 hours of interpreting observation and hands on experience with supervision. Students will gain experience interpreting in a variety of settings with Deaf consumers who have diverse linguistic preferences. Attendance to seminars and lab activities are required in conjunction with field experience activities. Development of paper and video portfolio are required for this course. Prerequisites: HUD 215 and HUS 201, demonstration of proficiency via examination and permission of instructor.

HUD 270-289 SELECTED TOPICS IN SIGN LANGUAGE INTERPRETATION

Studies of selected events, contemporary issues, topics or skill development in Sign Language Interpretation on the basis of timely concerns, community interests, students' requests, etc. These courses are of a continuation of professional skill development and of a timely or specialized nature and can be best offered not on a regularly scheduled basis, but periodically. Individual topics will be announced prior to registration; one, two or three credits will be offered depending on the nature of the course format and class hours. 1, 2 or 3 credit hours.



HUG 101 MULTIDISCIPLINARY PERSPECTIVES ON AGING

An introduction to the study of aging and older adulthood, giving an overview of the field, and developing a multidisciplinary background in theory and research along with an understanding of the needs of older adults. The course covers social, physiological, psychological, economic, and health aspects of aging. Prerequisite: ENG 088. 3 lecture hours per week. 3 credit hours.

HUG 201 RECREATION FOR OLDER ADULTS

This course is designed to prepare participants to function ethically and effectively in the prevailing healthcare climate. It introduces the participant to professional organizations and helps students become aware of state and federal regulations. Methods of service delivery in Activities and Recreation for special populations are learned. Various treatment modalities such as use of the arts and reminiscence are also presented. This course, together with its pre- and co-requisites, can also be counted as part of a program leading to national certification. Prerequisites: HUG 101 and HUS 101. Corequisite: HUS 201. 3 lecture hours per week. 3 credit hours.



HUM 001 INTRODUCTION TO THE HUMANITIES

Introduction to the Humanities is a course designed to give you ideas for making life more than "just living", and to give you new experiences in art, music, film, and drama. 3 lecture hours per week. 3 credit hours.





HUS 101 COMMUNITY RESOURCES IN HUMAN SERVICES

An introduction of human service needs and how various community service agencies are organized on the local, county, state and federal levels to meet these needs. The course examines how service agencies function in the areas of public health, welfare, mental health, rehabilitation, employment, correction and protection. Existing programs and their operation in the alleviation of personal and social problems are evaluated. 3 hours per week. 3 credits.

HUS 103 INTRODUCTION TO TECHNIQUES OF INTERVIEWING AND COUNSELING

An examination of various counseling and interviewing styles and techniques and the theoretical foundation of each. Students develop skills and an understanding of developmental behavioral, nondirective, psychodynamic, transactional, and other approaches to individual and group counseling. Interviewing skills are developed through the use of student interaction, role playing, videotape, and recordings of actual student interviews. Specific attention is given to the nature, purpose, objectives, and approaches in health, welfare, social service, and rehabilitation agencies. Prerequisite: HUS 101 or permission of the instructor. It is recommended that the student has completed or is concurrently taking PSY 102. 3 lecture hours per week. 3 credit hours.

HUS 104 UNDERSTANDING SOCIAL RESEARCH

The application of scientific methods to the study of human behavior. The relationship between theory and research is examined. Students develop skills in understanding and using such techniques as case studies, surveys, experiments, participant observation, testing, and basic statistical devices to analyze data. Prerequisite: HUS 101. 3 credit hours.

HUS 105 WORKFORCE AND CAREER DEVELOPMENT I

This is the first course in a series that (together with work experience) helps prepare customer service workers in a variety of workforce development positions for a national Certificate in Career Development Facilitation (Human Resources Management). This is an applied theory and practice course, which focuses on labor market information and resources, helping skills, diverse populations, and technology use in career facilitation. Prerequisites: HUS 101 or present employment in the One-Stop Career Center network. 3 credit hours.

HUS 106 WORKFORCE AND CAREER DEVELOPMENT II

This is the second in a 3-part series that helps prepare customer service workers in a variety of workforce development positions for a national Certificate in Career Development Facilitation (Human Resources Management). This is an applied theory and practice course, which focuses on career development models, advanced helping skills, career development assessment tools, diverse populations, ethical and legal issues, and computer applications for career development. Prerequisite: HUS 105. 3 credit hours.

HUS 107 WORKFORCE AND CAREER DEVELOPMENT III

This is the final course in a series that helps prepare customer service workers in a variety of workforce development positions for a national Certificate in Career Development Facilitation (Human Resources Management). It includes an internship and seminar sessions. Topics covered in the seminar will relate the skills and knowledge acquired in the first two courses – HUS 105 & HUS 106 – to the internship experience. Prerequisite: HUS 106. 3 credit hours.



HUS 201 EXTERNSHIP IN HUMAN SERVICES

A 90-hour field placement of the student as an observer-participant in two or more human service facilities/agencies. The course provides the student with an in-depth study of agencies related to their field of study and acquaints them with the services of the agencies and needs of the agencies' clients. Log reports and seminars are used in conjunction with the field activities. Prerequisite: HUS 101. 3 credit hours.



IDH 100 DYNAMICS OF HEALTHCARE IN SOCIETY

An orientation to healthcare services and delivery, from an interdisciplinary perspective, with a focus on process skills to include critical thinking, problem solving, effective communication, and self-directed learning abilities. The professional competencies will be stressed as applied to general issues and topics common to all healthcare providers. Emphasis will be placed on the role of the allied health practitioner as both provider and consumer of healthcare services. 3 lecture hours per week. 3 credit hours.

IDH 101 FUNDAMENTALS OF HEALTH AND DISEASE

This course is adapted to the needs of the allied health student whose specialization will be as a part of a health care team. The general goal is to provide a survey or introduction to human disease by a method that is somewhat less intensive than the classic and general systematic pathology that is offered to medical students. It is intended to provide the student with a better understanding and appreciation of the human body in both health and disease. An examination of health problems, disease processes, and discussions of normal functions for comparisons occur. Classification, symptoms, and terminology associated with disease and wellness are discussed. An orientation to treatment, diagnosis, and prognosis is presented. 3 lecture hours per week. 3 credit hours.

IDH 102 MATHEMATICS FOR THE HEALTH SCIENCES

This course will introduce the student to the logic in mathematics and measurement, the role of mathematics in the health professions, and the application of mathematics to problems encountered by the health care professional. Emphasis will be placed upon such topics as: basic computation, fractions, decimals, percents, ratios, proportion, and the nature of measurement. The metric system, its nature, and specific applications to dosages and other areas of health care will be examined. 3 lecture hours per week. 3 credit hours.

IDH 103 RESEARCH FOR THE HEALTH CARE PROFESSIONAL

This course is designed to help health care students identify health care issues in their discipline as well as health care in general. It is intended to acquaint the health care student with the resources in the library, to identify and differentiate information that may be pertinent to the student's topic, and to develop a formal approach in presenting a research paper. As the student progresses, the student will begin to organize their thinking; helping the health care student to properly place information in a logical sequence for presentation and defense of the topic in an open forum. 3 lecture hours per week. 3 credit hours.

IDH 104 CULTURAL DIVERSITY, HEALTHCARE AND YOU

This course is designed to explore current issues and diversity in the healthcare arena. An awareness of cultural, racial and religious issues is becoming increasingly vital for today's healthcare providers. The goal of this course is to compare and contrast an understanding of one's own culture to that of the diverse individuals with whom he/she will interact as a healthcare professional. Students will engage in an in-depth exploration of varied cultures and identity groups. The appreciation and understanding of varied cultures will then be linked to the delivery of healthcare in America. Student experiences and point of view will be an integral component of the course. 3 lecture hours per week. 3 credit hours.

IDH 212 PATHOPHYSIOLOGY

This course is adapted to the needs of the allied health student whose specialization will be as a part of a healthcare team. The general goal is to provide a survey or introduction to human disease by a method that is somewhat less intensive than the classic and general systemic pathology that is offered to medical students. It is intended to provide the student with a better understanding and appreciation of the human body in both health and disease. An examination of health problems disease processes, and discussions of normal functions for comparisons occur. Classification, symptoms, and terminology associated with disease and wellness are discussed. An orientation to treatment, diagnosis, and prognosis is presented. 3 lecture hours per week. 3 credit hours.

IDH 261 MEDICAL TERMINOLOGY

This course is a study of the language related to medical science and allied health specialties with emphasis on word analysis, construction, definition, pronunciation, spelling, and standard abbreviations. The program is system structured to facilitate association of terminology with anatomy and physiology, symptomatology, diagnostic operative and therapeutic procedures. Prerequisite: ENG 088. 3 lecture hours per week. 3 credit hours.



IDS 091 CAREER PLANNING PRACTICUM

Directed career exploration for the individual, including the understanding and identification of the relationships among personal needs, interests, values, aptitude, and the demands of various work settings. Human resources and print and non-print resources are used to explore the world of work and to examine and assess the risks and costs involved in choosing each career. The active participation of each student is emphasized in a workshop format. 3 lecture hours per week. 3 credit hours.



IDS 092 INTRODUCTION TO THE SOCIAL SCIENCES I

IDS 092 is designed to introduce the student to various methodologies and concepts characteristic of the social sciences. The course is experiential and seeks to foster the development of critical thinking skills that are required for successful study in the social sciences. 3 lecture hours per week. 3 credit hours.

IDS 093 INTRODUCTION TO COLLEGE: ARTS AND SCIENCES

An introduction to college study in the Arts and Sciences. Overviews academic and career goals. Topics covered include college policies and procedures, study skills, and career opportunities in the Arts and Sciences. The instructor of the course will also be the student's advisor during the student's first semester of study. Recommended for students intending to pursue study in the arts and sciences. 1 credit hour.

IDS 094 INTRODUCTION TO COLLEGE: BUSINESS AND ENGINEERING

An introduction to college study in Business and Technology. Overviews academic and career goals. Topics covered include college policies and procedures, study skills, and career opportunities in Business, Engineering and Technology. The instructor of the course will also be the student's advisor during the student's first semester of study. Recommended for students intending to pursue study in business, engineering and technology. 1 credit hour.

IDS 095 INTRODUCTION TO COLLEGE: NURSING AND ALLIED HEALTH

An introduction to college study in Nursing and Allied Health. Overviews academic and career goals and the health system. Topics covered include college policies and procedures, study skills, and career opportunities in Nursing and Allied Health. The instructor of the course will also be the student's advisor during the student's first semester of study. Recommended for students identified by their curriculum coordinator and for students required to take a developmental course. 2 lecture hours per week. 2 credit hours.

IDS 096 COPING IN COLLEGE

This course is designed to increase the EOF student's success in college by assisting the student in obtaining skills necessary to reach his/her educational objectives. Topics in this course include study techniques, managing interpersonal relations, managing anxiety, test taking, and career planning and development. 1 lecture hour per week. 1 credit hour.

IDS 100 ACADEMIC SURVIVAL SKILLS FOR ATHLETES

This course is designed to meet the needs of student athletes who must face the rigors of college study while balancing the commitment to his/her sport. The academic success of each athlete is the objective of the course which addresses study skills, learning styles, note-taking, time management and other pertinent topics. The course meets once a week throughout the semester and is graded on a pass/fail basis. 1 lecture hour per week. 1 credit hour.

INT 100 INTRODUCTION TO LANGUAGE MEDIATION

An introduction to the skills, tools, and professional opportunities in language mediation for people who speak two languages. The class examines how professionals, such as translators and interpreters create smooth communication in situations where language barriers exist. Students gain an appreciation of their own abilities to translate from one language to another. Students should be proficient in two languages before enrolling in this course. Prerequisites: students must have completed all developmental English and ESL courses prior to enrolling in this course. This course does not count towards the Certificate in Interpreting Spoken Language. Those who seek the certificate should enroll in INT 101. 2 lecture hours per week. 2 credit hours.

INT 101 INTERPRETING I

Interpreting I is the first of a two-part sequence that develops the students' interpreting skills. Bilingual students in any spoken language will learn, practice, and acquire consecutive interpreting skills. These skills include: listening skills, analytical ability, note-taking, short-term memory enhancement, paraphrasing, rapid language switching, and self-monitoring of accuracy. An introduction to sight translation will also be included. 3 lecture hours per week. 3 credit hours.

INT 102 INTERPRETING II

Interpreting II is a continuation of Interpreting I. In this course students will continue to improve on the skills needed to do professional interpreting in spoken languages. Interpreting II will incorporate more difficult passages to interpret and will introduce simultaneous interpreting. Students will focus on the separate skills necessary for the simultaneous interpreting task, such as determining lag time, shadowing, improving comprehension by chunking, focusing on production by modulating delivery, and developing an intuitive ability in their target language. An important aspect of this course will be to teach students techniques they can use to maintain and improve their skills long after they have finished the program. This course is open only to students enrolled in the Certificate Program for Interpreting Spoken Languages. 3 lecture hours per week. 3 credit hours.

INT 105 THE ROLE OF THE INTERPRETER

The Role of the Interpreter will be a practical course on the many aspects of the profession that are not so obvious to the novice. The Interpreters Code of Ethics and Professional Conduct and its implications for impartiality will be stressed. Cultural considerations for interpreting will be discussed, especially the notion of interpreting content and style rather than grammar and vocabulary. The course will also deal with the role of professional organizations and tools that translators and interpreters use in their work. The course requires students to observe professional interpreters in a courtroom. This course is open only to students enrolled in the Certificate Program for Interpreting Spoken Languages. 3 lecture hours per week. 3 credit hours.



ITA 101 BEGINNING ITALIAN I

Development of the fundamental skills of understanding, speaking, reading, and writing. Listening practice available. Not open to native Italian speakers. Prerequisite: ENG 088. 3 lecture hours per week. 3 credit hours.

ITA 102 BEGINNING ITALIAN II

A continuation of ITA 101; not open to native Italian speakers. 3 lecture hours per week. 3 credit hours.

ITA 111 INTERMEDIATE ITALIAN I

Review of fundamental skills of understanding, speaking, reading, and writing. Prerequisite: ITA 102 or 3 years of high school Italian. 3 lecture hours per week. 3 credit hours.

ITA 112 INTERMEDIATE ITALIAN II

A continuation of ITA 111. Prerequisite: ITA 111. 3 lecture hours per week. 3 credit hours.

ITA 115 ITALY: ITS ART AND CULTURE (FOREIGN STUDY)

A survey of Italian art, culture, and civilization. Emphasis is on how geographical, political, social, and economic factors have shaped Italian life through the centuries. The aesthetic achievements in Italian painting, sculpture, and architecture are examined from the ancient period through Renaissance and Baroque art. This course is offered in conjunction with a trip to Italy and fulfills 3 credits in the Modern Language or Fine Arts Department. 3 credit hours.

ITA 215 HISTORY OF ITALIAN FILM

A survey of the major periods in the evolution of Italian film from the silent era through neorealism to the present, with an emphasis on the major filmmakers: De Sica, Fellini, Antonioni. The place of Italian film in the social and political history of twentieth-century Italy will also be explored. Prerequisites: ENG 102 or 122. 3 lecture hours per week. 3 credit hours.



LGL 101 INTRODUCTION TO PARALEGALISM

This course introduces the student to the paralegal profession and the proper role of the paralegal in the legal system. Topics include the regulation of paralegals stressing attorney and paralegal ethics; introduction to the variety of paralegal practice environments and general career trends as well as an overview of the structure of the federal and state court systems and the role of the paralegal in the litigation process. Includes an overview of basic subject areas of law and legal terminology, and introduces the specific skills required of a paralegal in the law office. Prerequisites: All developmental requirements must be met. 3 lecture hours per week. 3 credit hours.



LGL 110 LEGAL RESEARCH

Through the use of hands-on manual research methods and computer based research techniques which include Lexis-Nexis, Internet based research and CD-ROM materials, students will learn to locate federal and state sources of law, including identification of primary and secondary sources of law. The digest system, key system, law reports, encyclopedic materials and the Shephardization process will be taught to familiarize the student with the many resources available in the law library. Students will learn to analyze fact patterns, identify relevant legal issues and understand the concept of precedent. Corequisite: ENG 101. 3 lecture hours per week. 3 credit hours.

LGL 111 LEGAL WRITING

This course is designed to familiarize students with procedures for writing memoranda of law and legal briefs. Students will learn proper format of these documents, including acceptable forms of citations for various types of legal source materials. Emphasis will be placed on developing a legal writing style that is clear and concise. Prerequisites: LGL 101 & LGL 110. 3 lecture hours per week. 3 credit hours.

LGL 120 CONTRACT LAW

This course examines the rules governing formation of contracts and contractual disputes. The student will learn the elements of a valid contract, how to draft a contract, the enforceability of contracts, remedies available when a party fails to perform under a contract and third party interests. An examination of the Uniform Commercial Code and the Restatement of Contracts 2d will enable the students to spot the issues relevant to their case. Students will explore the roles of the paralegal in assisting an attorney in drafting the legal contract in order to avoid potential disputes and how to assist a plaintiff's attorney and a defendant's attorney handling a case involving a contract dispute should one arise. Students will also be introduced to the trend toward arbitration. Prerequisites: LGL 101 & LGL 110. Corequisite: LGL 111. 3 lecture hours per week. 3 credit hours.

LGL 140 PROPERTY LAW

Topics include laws governing real and personal property, types of ownership, the sale and transfer of real and personal property interests, bailments, cooperatives and condominiums, easements and licenses, surveys and land descriptions, and public regulations and encumbrances. Students will examine the procedure for transfer of ownership of real property, including preparation and review of the real estate contract, title examinations, title insurance aspects of real estate finance, mortgage forms and provisions, and the real estate closing. Emphasis is placed upon the role of the paralegal assisting with the real estate closing and ethical considerations. Prerequisites: LGL 101, LGL 110. Corequisites: LGL 111 & LGL 120. 3 lecture hours per week. 3 credit hours.

LGL 210 TORT LAW

This course introduces the concept of Torts – the civil wrongs perpetrated by one citizen against another. These wrongs result in an injury or harm constituting the basis for a claim by the injured party. The three general categories of torts: intentional, negligent, and strict liability will be discussed along with the numerous specific torts including trespass, assault, battery, negligence, products liability, and intentional infliction of emotional distress. Because many judges and states utilize the Restatement of Torts (2nd) as an influential guide, the student will also examine this publication and be able to identify the fact patterns and evidentiary standards. Emphasis will be placed on pleading and discovery practice. Prerequisites: LGL 101, LGL 110 & LGL 111. 3 lecture hours per week. 3 credit hours.



LGL 215 LAW OFFICE MANAGEMENT

Through this course, students will become familiar with the workings of a law office and corporate legal department. Topics include staffing and structure, role of associates and partners and the ethical obligations of attorneys and office employees. Stress will be placed on organizational skills relating to docket and case management, library maintenance and billing procedures. Students will learn, through a hands-on approach, the various software applications including database management systems, litigation support software, telecommunications software, and legal timekeeping and billing software programs. Prerequisites: LGL 101, LGL 110, LGL 111, LGL 120 & CIS 100. 2 lecture hours and 2 laboratory hours per week. 3 credit hours.

LGL 220 LITIGATION I

In this course, students will examine the initial steps of the litigation process including client interviews, pre-litigation investigation and evaluation of the cause of action, drafting complaints and answers. The student will learn the details of filing a lawsuit including the jurisdiction and venue considerations and service of process. The structure of the court system and rules governing litigation are presented and students will explore the workings of a litigation practice and the role played by the paralegal. Emphasis is placed upon forms and documents used in litigation practice, and the ethical guidelines for the paralegal employed in a litigation firm. Prerequisites: LGL 101, LGL 110 & LGL 111. 3 lecture hours per week. 3 credit hours.

LGL 221 LITIGATION II

In this course, students will learn about the discovery and trial preparation process including the preparation of interrogatories, depositions, document production and inspection requests and requests for admissions. Through a hands-on approach, students will learn to abstract depositions and organize case files. Prerequisites: LGL 101, LGL 110, LGL 111 & LGL 220. 3 lecture hours per week. 3 credit hours.

LGL 230 FAMILY LAW

In this course, students will examine issues and procedures in matrimonial and family law matters. Topics include ethical considerations for the attorney and paralegal in family law, premarital agreements, formation and dissolution of marriage, divorce grounds and procedures, spousal and child support, division of property, separation agreements, child custody, legal status of children, adoption, and contemporary issues in the field of family law. Students will become familiar with the forms and documents used in the family law practice. Prerequisites: LGL 101, LGL 110, LGL 111 & LGL 120. 3 lecture hours per week. 3 credit hours.

LGL 231 CRIMINAL LAW

This course will familiarize the student with the criminal law process from criminal investigations through appeal. Topics include probable cause, search and seizure, post arrest issues, evidence in criminal cases, the Miranda rule, arraignment and discovery, accessories and attempt, crimes against the person and crimes against property, crimes against the public order, trial procedure, defenses, sentencing and appeal. Emphasis is placed upon the role of the paralegal and ethical issues involved in working on a criminal case. Prerequisites: LGL 101, LGL 110, LGL 111 & LGL 210. 3 lecture hours per week. 3 credit hours.

LGL 235 WILLS, ESTATES & TRUSTS

This course examines the purpose and need for a will and legal and procedures issues involved with the drafting, execution and administration of an estate. Students will explore the laws of testate or intestate succession, will validity requirements, modification and revocation of a will, probate administration, and types of trusts. Tax considerations in the administration of estates and ethical principles relevant to paralegals will also be discussed. Prerequisites: LGL 101, LGL 110, LGL 111 & LGL 120. 3 lecture hours per week. 3 credit hours.

LGL 238 PARALEGAL INTERNSHIP

Students gain hands-on work experience while working a minimum of ten hours per week in a legal environment. Students meet with department chair each week to discuss internship goals and their progress. Prerequisites: LGL 101, LGL 110, LGL 111, LGL 120, prior approval of Program Director and minimum overall GPA of 3.0

LGL 240 BUSINESS ORGANIZATIONS

In this course, students will study the forms of business organizations and considerations in choosing a business entity. Topics include the formation and organization of sole proprietorships, partnerships, limited liability companies, corporations and tax considerations associated with each of these entities. Students will examine the documentation required to establish and maintain the various types of business organizations including articles of incorporation, stock ledgers, resolutions and minutes and procedures for filing. Prerequisites: LGL 101, LGL 110 & LGL 120. 3 lecture hours per week. 3 credit hours.



**LIS 105 METHODS IN
LIBRARY RESEARCH**

A systematic approach to Library resources in the new technological environment, designed to meet the needs of the student. The course covers the primary tools of a modern academic library: the catalog, the reference collection, online databases, and Internet searching, while developing the conceptual knowledge necessary for effective searching, evaluation, selection and use of information. Methods of research strategy are taught in conjunction with other course-assigned projects. A technology enriched class with many components online. 1 lecture hour per week. 1 credit hour.

**MAT 003 A BRIEF REVIEW
OF COMPUTATIONAL
SKILLS**

The course reviews the basic skills required as a prerequisite for Elementary Algebra. Topics covered include decimals, fractions, whole numbers, and operations involving them. Basic problems involving proportions, percent, and negative integers are emphasized. This course is limited to students who have achieved an appropriate score on the computation portion of the College Basic Skills Placement Test and who are invited by the Department. 1 credit hour.

**MAT 004 BASIC SKILLS
REVIEW IN ELEMENTARY
ALGEBRA**

The course is a brief review of the basic skills necessary to pass the elementary algebra portion of the College Basic Skills Placement Test. The topics covered include polynomials, signed numbers, exponents, factoring, equations, and systems of equations. This course is limited to students who have achieved an appropriate score on the Computation and Elementary Algebra portions of the College Basic Skills Placement Test and who are invited by the Department. 1 credit hour.

**MAT 011 INTRODUCTION
TO MATHEMATICAL
CONCEPTS**

A course for students whose College Basic Skills Test scores indicate the need for preparatory work in arithmetic. A comprehensive study of arithmetic and allied processes with the purpose of preparing students for algebra. Emphasis is on the purpose and techniques of mathematics. Topics include arithmetic operations, fractions, decimals, percents, factors, negative numbers, elementary equations. 3 lecture hours per week. 3 credit hours.

THE MATHEMATICS DEPARTMENT

... offers courses designed to serve the various degree programs in the areas of Biology, Engineering, Engineering Technology, Liberal Arts, Business, Physical Science, and Allied Health fields. In order to meet the degree requirements, students must select courses according to the following guidelines.

College policy requires permission of the Department before you may register for a third attempt at a particular course. No third attempts will be allowed for any mathematics course unless the student involved has successfully completed the prerequisite of that course immediately before the third attempt. This applies to F's and W's. Absolutely no fourth attempts will be permitted.

A.A. AND A.S. PROGRAMS

ENGINEERING AND PHYSICAL SCIENCE PROGRAMS

SEQUENCE:

MAT 143, MAT 144, MAT 171, MAT 172, MAT 271, MAT 272. Through testing students are placed into MAT 143, MAT 144, or directly into MAT 171. Students requiring additional developmental work may be placed into MAT 011, MAT 015 or MAT 022.

BIOLOGY PROGRAM

SEQUENCE:

MAT 143, MAT 144 or MAT 171, MAT 172. Through testing students are placed into MAT 143, MAT 144 or directly into MAT 171. Students requiring additional developmental work may be placed into MAT 011, MAT 015, or MAT 022.

BUSINESS PROGRAMS

SEQUENCE:

See advisor for first semester placement. For their second semester of mathematics students may take MAT 146 or MAT 171. MAT 246 may be substituted for MAT 146. Through testing students are placed into MAT 143, MAT 146, or MAT 171. Students requiring additional developmental work may be placed into MAT 011, MAT 015 or MAT 022.

NOTE 1: Students taking MAT 143 in the first semester may substitute MAT 144 for MAT 146 or MAT 246.

NOTE 2: MAT 146 (or MAT 171) is strongly recommended for all Business students planning to continue their studies in four-year institutions.

LIBERAL ARTS PROGRAMS

A) Students with backgrounds limited to Algebra I and Geometry.

SEQUENCE:

MAT 011, MAT 015, MAT 016, MAT 117 (or MAT 119), or MAT 011, MAT 022, MAT 117 (or MAT 119); in options requiring a full year of credit mathematics the sequence may be completed with one of the following: MAT 125 (Liberal Arts or Education), MAT 126 (Management or Social Science) MAT 127. Through testing, students are placed into MAT 011, MAT 015, MAT 022 or directly into MAT 117 (or MAT 119).

NOTE 1: Students with an algebra deficiency must qualify to take MAT 022 in place of MAT 015, MAT 016.

NOTE 2: Students planning to continue their studies at four-year institutions should consult a counselor to determine if MAT 117 or MAT 119 is more appropriate.

B) Students whose background includes the equivalent of Algebra II or higher may take the sequence in (A) above, but it is recommended that they take one of the sequences shown under the Biology or Business programs.

A.A.S. PROGRAMS

Students in programs leading to an A.A.S. in Business (Accounting/Data Processing, Business Management, Computer Science/Data Processing, Marketing, Office Administration), Engineering Technology (Civil/Construction, Electromechanical, Electronics, Electronics/Laser, Manufacturing, Mechanical), or Health Careers must satisfactorily complete those courses specified in their program outline.

DIPLOMA OR CERTIFICATE PROGRAMS

Students in a program leading to a diploma or certificate must satisfactorily complete those mathematics courses if any, specified in their program outline. Students are expected to complete developmental requirements before admission to most diploma or certificate programs. Consult with your program coordinator for more information.

Students are urged to consult with their advisor whenever in doubt or when their interests lie in programs other than those listed above.

MAT 015 BEGINNING ALGEBRA I

A course designed for students with little or no previous experience with algebra. The course will cover signed numbers, exponents, the solution of equations, and verbal problems. Prerequisite: MAT 011 or satisfactory performance on the College Basic Skills Placement Test. 3 lecture hours per week. 3 credit hours.

MAT 016 BEGINNING ALGEBRA II

A course for students who have successfully completed Beginning Algebra I (MAT 015). This course will cover factoring, radicals, polynomials, rational expressions, verbal problems, quadratics, and exponents. Prerequisite: A grade of "C" or better in MAT 015. NOTE: Completing the MAT 015, MAT 016 sequence is equivalent to completing MAT 022. 4 lecture hours per week. 4 credit hours

MAT 022 INTRODUCTION TO ALGEBRA

A course for students whose College Basic Skills Test scores indicate the need for preparatory work in algebra. The course includes solving equations, polynomials, factoring, and graphing linear equations. Prerequisite: MAT 011 or satisfactory performance on the College Basic Skills Placement Test. 4 lecture hours per week. 4 credit hours.

MAT 113 BUSINESS MATHEMATICS

A course in the essentials of business mathematics to provide general knowledge in the solution of practical financial problems of a business and personal nature. The course includes a comprehensive review of decimals, fractions, and percentages. Business topics covered are: payrolls, cash discounts, trade discounts, markups, simple interest, compound interest, promissory notes, annuities, amortization, depreciation, and stocks and bonds. Prerequisites: MAT 011 and ENG 088, or satisfactory performance on the College Basic Skills Placement Test. 3 lecture hours per week. 3 credit hours.

MAT 117 AN INTRODUCTION TO MATHEMATICAL IDEAS

A course for students enrolled in Liberal Arts and General Education Programs. The course is not recommended for students who have completed Algebra II or higher. Prerequisites: MAT 016 or MAT 022, ENG 089, and ENG 099, or satisfactory performance on the College Basic Skills Placement Test. 3 lecture hours per week. 3 credit hours.

MAT 119 ALGEBRA

The fundamentals of college algebra, including graphs of linear equations, equations of lines, systems of equations, inequalities, the algebra of polynomials, factoring, rational expressions, radical expressions, and rational exponents. Prerequisites: A grade of "C" or higher in MAT 016 or MAT 022, and ENG 089, or satisfactory performance on the College Basic Skills Placement Test. 3 lecture hours per week. 3 credit hours.

MAT 125 SURVEY OF SPECIAL TOPICS IN MATHEMATICS

Logic and the number system in mathematics for students whose major interest is Liberal Arts or Education. Research papers and other writing experiences give students the opportunity for study in topics such as geometry, game theory, and computers. Prerequisites: ENG 089, ENG 099 and MAT 117 or MAT 119 or equivalent. 3 lecture hours per week. 3 credit hours.

MAT 126 MATHEMATICS FOR MANAGEMENT AND SOCIAL SCIENCES

An introduction to linear systems with applications in business and management. Systems of linear equations, matrices, linear programming, the simplex method, and the transportation problem are covered. Prerequisites: ENG 089; a satisfactory score on the mathematics portion of the College Basic Skills Test, or grade of "C" or better in MAT 016 or MAT 022, or successful completion of MAT 117 or MAT 119 or equivalent. 3 lecture hours per week. 3 credit hours.

MAT 127 ELEMENTARY STATISTICS

An elementary course in descriptive statistics and statistical inference. Measures of central tendencies, standard deviation, sampling, and probability distributions, including binomial, normal, and others. Practical problems involving correlation, linear regression, and hypothesis testing are included. Prerequisites: ENG 089; a satisfactory score on the mathematics portion of the College Basic Skills Test, or grade of "C" or better in MAT 016 or MAT 022, or successful completion of MAT 117 or MAT 119, or equivalent. 4 lecture hours per week. 4 credit hours.

MAT 130 WOMEN IN MATHEMATICS AND SCIENCE

This course will focus on the contributions of women to the disciplines of mathematics and science, with both historical and contemporary references. Discussions will emphasize the obstacles encountered in entering these fields as a result of gender issues, as well as the impact these women have had upon their fields and society as a whole. Current trends in education and employment for women in the fields of mathematics and science will be explored. Course structure will combine a mix of lectures, discussion, group work, films and guest speakers. Prerequisites: MAT 117 or higher (MAT 125 recommended). 3 lecture hours per week. 3 credit hours.

MAT 143 ELEMENTARY MATHEMATICAL ANALYSIS I

An introduction to the concepts and techniques needed to proceed to more advanced mathematics and science courses, such as calculus. Topics include the solution of linear and quadratic equations and inequalities; operations with polynomials, rational expressions, and radicals; linear systems; exponents; Cartesian coordinates; slope; circles; parabolas; polynomials; rationals; functions; synthetic division; the factor and remainder theorems; exponential and logarithmic functions. Prerequisites: ENG 089 and a grade of "C" or better in MAT 119 or satisfactory performance on the "Higher Level Mathematics Test". 4 lecture hours per week. 4 credit hours.

MAT 144 ELEMENTARY MATHEMATICAL ANALYSIS II

A continuation of Elementary Mathematical Analysis I, specifically intended for students continuing on to Calculus or studying Engineering Technology. Topics include exponential and logarithmic equations; compound interest; logarithms scales; exponential growth and decay; right triangle trigonometry; angular velocity; graphing trigonometric functions; laws of sines and cosines; inverse trigonometric functions; the sum, difference, double and half angle formulas; trigonometric equations; DeMoivre's Theorem; polar coordinates; conics; and an introduction to matrices and determinants. Prerequisites: ENG 089 and a grade of "C" or better in MAT 143 or a satisfactory score on the Mathematics Department's "Higher Level Mathematics Test." 4 lecture hours per week. 4 credit hours.

MAT 146 BRIEF CALCULUS WITH APPLICATIONS

An elementary course in the application of the fundamentals of calculus to the management, social, and life sciences. Topics include limits, continuity, differentiation, maxima, minima, integration of elementary functions, and applications. Prerequisites: ENG 089 and MAT 143 or equivalent. 3 lecture hours per week. 3 credit hours.

MAT 148 INTRODUCTION TO GRAPHICS CALCULATORS/DERIVE

A course designed to familiarize students with graphics calculators and the Derive computer algebra system. Equation solving, symbolic algebra, graphic features, and calculus applications will be studied. Corequisite: MAT 171 or PHY 111 or permission of the instructor. 1 lecture hour per week. 1 credit hour.

MAT 171 UNIFIED CALCULUS I

Analytic geometry; limits and continuity; differentiation and integration of algebraic and transcendental functions; extrema; definite and indefinite integrals; applications to geometric and physical problems. Prerequisites: ENG 089 and a grade of "C" or better in MAT 144 or permission of the Mathematics Department. Corequisite: MAT 148 or permission of the Mathematics Department. 4 lecture hours per week. 4 credit hours.

MAT 172 UNIFIED CALCULUS II

A continuation of MAT 171. Techniques of integration, infinite series, conic sections, parametric equations, and polar coordinates. Prerequisites: ENG 089 and a grade of "C" or better in MAT 171. 4 lecture hours per week. 4 credit hours.

MAT 246 BUSINESS STATISTICAL ANALYSIS

Application of statistical methods to business. An introduction to descriptive statistics, probability theory, sampling, estimations, hypothesis testing, analysis of frequencies, linear regression and correlation, time-series analysis and computer applications. Recommended as the foundation course in quantitative analysis as generally prescribed by AACSB member colleges for business administration students. Prerequisites: ENG 089, ENG 099, and MAT 143 or permission of the instructor. 3 lecture hours and 1 laboratory hour per week. 4 credit hours.

MAT 265 LINEAR ALGEBRA

Linear algebra over the real number system. Vector spaces, linear transformations, matrices, systems of linear equations, determinants, the Gram-Schmidt Orthogonalization Process, eigenvalues and eigenvectors. Prerequisites: ENG 089 and MAT 172 or permission of the instructor. 3 lecture hours per week. 3 credit hours.

MAT 267 DISCRETE MATHEMATICS

Topics include sets, numbers, algorithms, logic, computer arithmetic, applied modern algebra, combinations, recursion principles, graph theory, trees, and digraphs. Prerequisites: CSC 102, ENG 089, and MAT 143 or permission of the instructor. 3 lecture hours per week. 3 credit hours.

MAT 271 UNIFIED CALCULUS III

Additional topics in calculus and analytic geometry, including indeterminate forms, vector functions and calculus, functions of several variables, multiple integrals, partial derivatives, directional derivatives, divergence, curl, line integrals, and Green's Theorem. Prerequisites: ENG 089 and a grade of "C" or better in MAT 172 or permission of the instructor. 4 lecture hours per week. 4 credit hours.



MAT 272 DIFFERENTIAL EQUATIONS

Fundamental theorems on existence and uniqueness for solutions of ordinary differential equations; solution and applications of equations of the first order and first degree; linear equations of higher order; Laplace transforms; solution by series. Prerequisites: ENG 089 and a grade of "C" or better in MAT 271. 4 lecture hours per week. 4 credit hours.

MAT 280-299 PROJECTS IN MATHEMATICS

Particular topics in mathematics are explored. Topics covered change from semester to semester. Examples are: Mathematics in Art and Music, The Development of Mathematics, Design of Experiments, Non-Euclidean Geometries, game theory, and Basic concepts of Modern Algebra. Prerequisite: Permission of the instructor. 3 lecture hours per week. 3 credit hours.

**MET 104 ENGINEERING DRAWINGS**

A study of the major elements of the engineering drawing. Topics include multiview (2-dimensional), sections and pictorial views, dimensioning practices, ANSI standard limits and fits, surface finishes and fasteners. Geometric dimensioning and tolerances (GD&T) are covered with attention to tolerances of form, orientation, location, and runout. Also included are applications of symbols, datums, material condition modifiers, bonus tolerances, and virtual conditions. 3 lecture hours and 1 laboratory hour per week. 3 credit hours.

MET 106 ENGINEERING MATERIALS AND PROCESSES

A study of metallurgical properties of engineering materials including identification, effects of alloys, structural transformation, heat treating, and corrosion. Principles of machine tool operation, inspection equipment, and both destructive and non-destructive testing are also covered. 2 lecture hours and 3 laboratory hours per week. 3 credit hours.

MET 109 COMPUTER-AIDED DRAFTING

An introduction to Computer-Aided Drafting (CAD), this course covers topics such as operation of the equipment, drawing entities, display configuration, editing techniques, view manipulation and storage, hatching, layers, dimensioning, file management, use of attributes. Representative drawings such as dimensioned machine parts, architectural floor plans and surveying plot plans are generated and plotted in the CAD laboratory. 2 lecture hours and 3 laboratory hours per week. 3 credit hours.

MET 112 MECHANICS-STATICS

A study of the basic principles of static equilibrium of forces including the use of free-body diagrams, the location of centroids, and calculation of moment of inertia. Practical problems involving simple machines, trusses, and frames are analyzed. Calculations use units from both the English Gravitational System and the International System (Metric). Prerequisite: MAT 143. 3 lecture hours per week. 3 credit hours.

MET 213 3-D AUTOCAD

Through the user coordinate system (UCS) and viewpoints, students learn to create 3-D wire frame drawings clad with 3-D faces and meshes in order to create realistic images via hidden line removal, lighting and perspective view. 3-D geometry techniques will be emphasized to increase drawing efficiency. Autoshade and Animator will be illustrated. Prerequisite: MET 109 or permission of instructor. 2 lecture hours and 2 laboratory hours per week. 3 credit hours.

MET 219 CAD/CAM

This course introduces Computer-Aided Manufacturing using Mastercam software. The basics of Numerical Control (NC) programming are covered including G and M codes, absolute and incremental positioning and canned cycles. Part geometry is created and edited using Mastercam software. Job setups are prepared, tool path specified and a tool library is created. Part machining is verified graphically and NC code is post-processed and downloaded to CNC machine tools to produce actual parts. Prerequisites: MET 106 and MET 109. 2 lecture hours and 3 laboratory hours per week. 3 credit hours.

MET 285 SPECIAL TOPICS IN MECHANICAL ENGINEERING TECHNOLOGY

Topics of current interest in Mechanical Engineering Technology. Course content is arranged to satisfy the particular needs and interests of the students. Credit by arrangement.

MET 295 INDEPENDENT STUDY

A special research or development project or a course not currently offered in the Mechanical Engineering Technology program. Reserved for the advanced student with individual needs. Credit by arrangement.



MRAD 102 RADIATION THERAPY MATH

This course is designed to introduce the student to practical math applications related to medical imaging and therapeutic sciences. We will evolve through basic math into formulas that apply radiation exposure, dose, conversions, decay, attenuation, HVL, shielding, radio-pharmaceutical and physics applications for all radiography, nuclear medicine and therapeutic science students. Fall semester. Online, Muhlenberg campus. 3 lecture hours per week. 3 credit hours.



MRAT 100 BASICS OF RADIATION THERAPY

This course is designed to introduce the student to the history of radiation therapy, to review the theories of radiation protection and to introduce the basic theories and terminology used in radiation therapy. This course will also cover basic nursing care of the radiation therapy patient. Spring semester. Muhlenberg campus. 3 lecture hours per week. 3 credit hours.

MRAT 101 INTRODUCTION TO RADIATION THERAPY

This course is designed to introduce the student to the history of radiation therapy, to review the theories of radiation protection and to introduce the basic theories and terminology used in radiation therapy. This course will also cover basic nursing care of the radiation therapy patient. The principles and policies of the program and the professional responsibilities of the radiation therapist will also be discussed and examined. Ethics, legal issues and cultural diversity as they apply to the health care professional and the patient will also be examined and discussed. Spring semester. Muhlenberg campus. 4 lecture hours per week. 4 credit hours.

MRAT 104 TREATMENT PLANNING I

This course is designed to review and expand concepts and theories taught in radiation physics, to introduce the simulation process, treatment planning and the relationship between simulation and treatment planning. Students will learn: treatment prescription; geometric parameters and patient measurements; and the factors involved in dose calculations. Spring semester. Muhlenberg campus. 4 lecture hours per week. 4 credit hours.

MRAT 108 PRINCIPLES AND PRACTICES OF RADIATION THERAPY

This course is designed to cover the radiation equipment, treatment techniques, treatment delivery accessories, treatment delivery, and quality assurance. Spring semester. Muhlenberg campus. 3 lecture hours per week. 3 credit hours.

MRAT 110 TREATMENT PLANNING I

This course is designed to review and expand concepts and theories taught in the radiation physics, to introduce the simulation process, treatment planning and the relationship between simulation and treatment planning. Detailed analysis of the structure of matter, properties of radiation, nuclear transformations, x-ray production and interactions of ionizing radiation are emphasized. Also presented are treatment units used in external radiation therapy, measurement and quality of ionizing radiation produced, absorbed dose measurement, dose distribution and scatter analysis. Spring semester. Muhlenberg campus. 4 lecture hours per week. 4 credit hours.

MRAT 112 NEOPLASTIC DISEASES I

This course is designed to examine and evaluate the management of neoplastic disease. The epidemiology, etiology, pathology, diagnosis, detection and prognosis of neoplastic disease will be presented, discussed and evaluated. The histology, anatomical site and patterns of spread will also be presented and discussed. The theories of disease causation will be introduced. The management of neoplastic disease as it relates to the radiation therapist will be presented and discussed as well. This course covers the anatomic regions from skin to head & neck neoplasms. Spring semester. Muhlenberg campus. 4 lecture hours per week. 4 credit hours.



MRAT 116 RADIATION BIOLOGY

This course is designed to present basic concepts and principles of radiation biology. The student will learn: biophysical events; radiation effects; radiosensitivity and response; and biologic principles of radiation therapy. Fall semester. Online. Muhlenberg campus. 2 lecture hours per week. 2 credit hours.

MRAT 120 PRINCIPLES AND PRACTICES OF RADIATION THERAPY

This course is designed to provide a knowledge base for comparing, and contrasting the type of radiation equipment; patient positioning and immobilization devices; the treatment delivery accessories; the documentation of treatment parameters and delivery; and the quality assurance program. Spring semester. Muhlenberg campus. 3 lecture hours per week. 3 credit hours.

MRAT 121 NEOPLASTIC DISEASES I

This course is designed to examine and evaluate the management of neoplastic disease. The epidemiology, etiology, diagnosis, detection, patient condition, treatment and prognosis of neoplastic disease will be presented, discussed and evaluated in relationship to histology, anatomical site and patterns of spread. The theories of disease causation as it applies to neoplastic disease will be introduced and discussed. This course covers the anatomic regions from skin to head & neck neoplasms. Spring semester. Muhlenberg campus. 4 lecture hours per week. 4 credit hours.

MRAT 130 TREATMENT PLANNING II

This course is designed to establish factors that influence and govern clinical planning of patient treatment. Encompassed are isodose descriptions, patient contouring, radiobiologic considerations, dosimetric calculations, compensation and clinical application of treatment beams. Optimal treatment planning is emphasized along with particle beams. Stereotactic and emerging technologies are presented. Summer semester. Muhlenberg campus. 4 lecture hours per week. 4 credit hours.

MRAT 135 RADIOBIOLOGY

This course is designed to present basic concepts and principles of radiation biology. The interactions of radiation with cells, tissue and the body as a whole and resultant biophysical events will be presented. Discussion of the theories and principles of tolerance dose, time-dose relationships, fractionation schemes and the relationship to the clinical practice of radiation therapy will be discussed, examined and evaluated. Summer semester. Muhlenberg campus. 2 lecture hours per week. 2 credit hours.

MRAT 140 NEOPLASTIC DISEASES II

This course is a continuation of MRAT 121. It is designed to examine and evaluate the management of neoplastic disease. The epidemiology, etiology, diagnosis, detection, patient condition, treatment and prognosis of neoplastic disease will be presented, discussed and evaluated in relationship to histology, anatomical site and patterns of spread. This course covers the anatomic regions from CNS to breast neoplasms, as well as pediatric, AIDS related benign and emergency neoplasms. Summer semester. Muhlenberg campus. 4 lecture hours per week. 4 credit hours.

MRAT 141 REGISTRY PREPARATION

This course is designed to review the material covered during the year in order to prepare the student radiation therapist to take the national exam. The information covered will include but not limited to: radiation protection, quality assurance, treatment planning, patient care and radiobiology. Fall semester. Muhlenberg campus. 1 credit hour.

MRAT 204 TREATMENT PLANNING II

This course is designed to establish factors that influence clinical planning of patient treatment. The student will learn: radiobiologic considerations as it relates to treatment planning; compensation and clinical application of treatment beams; treatment techniques and anatomic relationships; patient monitoring systems and documentation of simulation procedure. Prerequisite: MRAT 104. Summer semester. Muhlenberg campus. 4 lecture hours per week. 4 credit hours.

MRAT 210 REGISTRY REVIEW

This course is designed to be a review of the material covered throughout the year. The student will be prepared to take the national exam. Fall semester. Muhlenberg campus. 1 lecture hour per week. 1 credit hour.

MRAT 212 NEOPLASTIC DISEASES II

This course is a continuation of MRAT 112. It is designed to examine and evaluate the management of neoplastic disease. The epidemiology, etiology, pathology, diagnosis, detection and prognosis of neoplastic disease will be presented, discussed and evaluated. The histology, anatomical site and patterns of spread will also be presented and discussed. The theories of disease causation will be introduced. The management of neoplastic disease as it relates to the radiation therapist will be presented and discussed as well. This course covers the anatomic regions from CNS to breast, as well as pediatric, AIDS related, benign and emergency neoplasms. Prerequisite: MRAT 112. Summer semester. Muhlenberg campus. 4 lecture hours per week. 4 credit hours.



MRNT 102 HEALTH CARE TODAY

This course is designed to create a broad overview of the health care industry today. We will introduce the student to delivery of health-care, economics, insurance programs, administrative roles, leadership, management, budget and planning, internal politics, capital allocation, operating budgets, government roles and employee relations. Fall semester. Online, Muhlenberg campus. 2 lecture hours per week. 2 credit hours.



MST 100 FUNDAMENTALS OF MASSAGE THERAPY

This course introduces the student to the field of massage therapy, concentrating on the philosophy of the massage therapy profession and its role in health care. Topics such as history, certification requirements, education, employment opportunities, professional organizations and the benefits of massage will be discussed. Ethical issues for the massage therapist will be explored. Medical terminology will be introduced. Students will become skilled in the principles of body mechanics, posture, balance and rhythm through the study of Tai Chi. Students will be required to receive at least one full body massage from a professional massage therapist. Prerequisites: BIO 105, ENG 101. Co-requisites: BIO 106, MST 101, MST 102, MST 103. 3 lecture hours per week. 3 credit hours.

MST 101 MASSAGE THERAPY I

The student will become proficient in the delivery of a Swedish massage including the six standard and complementary strokes. Through demonstration and practice the student will be able to perform a one-hour full body Swedish massage. Body mechanics will be re-introduced and used throughout the next ten months. The theoretical principles and scientific study of professional touch will be explored. Students will learn the indications, contraindications, limitations and physiological effects of these techniques. The fundamentals of hydrotherapy will be introduced. Students will learn to take a medical history and perform necessary documentation. The student will learn approaches to care, draping, and professional and client hygiene following OSHA guidelines. Therapist exercise and safety will also be emphasized. Students will also learn about equipment and products used in massage therapy. Prerequisites: BIO 105, ENG 101. Co-requisites: BIO 106, MST 100, MST 102, MST 103. 3 lecture hours and 3 laboratory hours per week. 4 credit hours.

MST 102 KINESIOLOGY FOR MASSAGE THERAPISTS

The study of neuro-musculo-skeletal structures with an emphasis on function of normal human movement. Students will be able to palpate all muscles as well as identify the origins and insertions. Students will gain knowledge of normal movement and biomechanical function of muscles. Postural analysis will be instructed. The relationship of neuromuscular and fascial restriction to postural abnormalities will be studied. Prerequisites: Students whose records and tests indicate the need for ESL or developmental course work must complete the course work prior to entering the MST program. Prerequisites: BIO 105, ENG 101. Co-requisites: BIO 106, MST 100, MST 101, MST 103. 3 lecture hours and 3 laboratory hours per week. 4 credit hours.



MST 103 CLINIC I

An initial clinic experience of 4 hours a week for an 8-week period (beginning mid-semester) will allow the student the opportunity to utilize these skills under direct supervision. Prerequisites: BIO 105, ENG 101. Co-requisites: BIO 106, MST 100, MST 101, MST 102. 4 laboratory hours per week for 8 weeks. 1 credit hour.

MST 104 MASSAGE THERAPY BUSINESS MANAGEMENT SEMINAR

Business management skills will be discussed as they apply to massage therapy. Concepts of marketing, pricing, budgeting and forecasting will be covered. Issues of ethical business practices will be discussed. Students will learn the skills of how to set up their own practice or find a position in massage therapy that is suitable for them. Students will develop a business plan, which will include a resume, business cards, brochures, and other promotional materials. Prerequisites: BIO 105, BIO 106, MST 100, MST 101, MST 102, MST 103, MST 107. Co-requisites: IDH 212, MST 105, MST 106, MST 108. 1 lecture hour per week. 1 credit hour.

MST 105 MASSAGE THERAPY II

Massage therapy treatment techniques such as medical and sports massage will be taught for pathologies such as migraines, sciatica, back pain, TMJ syndrome, tendonitis, carpal tunnel syndrome, muscle strains and sprains, tennis elbow, and shin splints. The indications and contraindications of working with pregnant women will be discussed. The physiological changes related to pregnancy and related medical conditions are also explored. Prerequisites: BIO 105, BIO 106, MST 100, MST 101, MST 102, MST 103, MST 107. Co-requisites: IDH 212, MST 104, MST 106, MST 108. 3 lecture hours and 3 laboratory hours per week. 4 credit hours.

MST 106 EASTERN MASSAGE THERAPY

Students will explore the history of a variety of Eastern massage techniques including Anma, Shiatsu, and Reflexology. This course will introduce the student to the 5-element theory, meridians and Eastern healing techniques as they apply to a variety of conditions. The indications, contraindications, limitations and physiological effects of these techniques will be described. Laboratory experience will provide students with the opportunity to become skilled in the practice of techniques of Anma. Prerequisites: BIO 105, BIO 106, MST 100, MST 101, MST 102, MST 103, MST 107. Co-requisites: IDH 212, MST 104, MST 105, MST 108. 3 lecture hours and 3 laboratory hours per week. 4 credit hours.

MST 107 CLINICAL PRACTICE II

A continuation of MST 103. Students will continue to utilize their skills under supervision. A clinical outreach component of 10 hours will be initiated. Prerequisites: BIO 105, BIO 106, ENG 101, MST 100, MST 101, MST 102, MST 103. 4 laboratory hours per week for 8 weeks. 1 credit hour.

MST 108 CLINICAL PRACTICE III

A continuation of MST 107. Student will continue to treat clients, on a more independent level. Students will complete their community outreach requirement of 10 hours. (10 hours completed in MST 107) Prerequisites: BIO 105, BIO 106, MST 100, MST 101, MST 102, MST 103, MST 107. Co-requisites: IDH 212, MST 104, MST 105, MST 106. 4 laboratory hours per week. 2 credit hours.



NMT 101 INTRODUCTION TO NUCLEAR MEDICINE FOR RADIOGRAPHERS

Introduces radiographers to nuclear medicine instrumentation, procedures, and radiopharmacy; radiation protection and regulations specific to nuclear medicine; reviews biomedical ethics and law and health care safety; discusses the basics of effective communication; covers the basic processes involved in human pathology. 20 lecture and laboratory contact hours during first 3 weeks of fall semester. 1 credit hour.

NMT 102 INTRODUCTION TO NUCLEAR MEDICINE FOR NON-RADIOGRAPHERS

Introduces non-radiographers to nuclear medicine instrumentation, procedures and radiopharmacy; teaches biomedical ethics and law and health care safety; discusses the basics of effective communication; teaches patient care as it applies to nuclear medicine; covers the basic processes involved in human pathology. 20 lecture and laboratory contact hours during first 3 weeks of fall semester, plus 2 lecture hours per week. 3 credit hours.

NMT 110 NUCLEAR MEDICINE PHYSICS

Covers the nature of radiation, radioactive decay, interactions of radiation with matter, and production of radionuclides. 3 lecture hours per week. 3 credit hours.

NMT 120 NUCLEAR MEDICINE PROCEDURES I

Includes a review of the anatomy and physiology of systems covered. Teaches pathology and the nuclear medicine procedures used to evaluate a body system or disease state. Clinical Practicum I is taken concurrently as a laboratory with this course. The student observes, assists with and performs procedures in the clinical setting. Students participate in clinical practice for two full days per week. 4 lecture hours per week. 4 credit hours.

NMT 121 NUCLEAR MEDICINE PROCEDURES II

Includes a review of the anatomy and physiology of systems covered. Teaches pathology, and the nuclear medicine procedures used to evaluate a body system or disease state. Clinical Practicum II is taken concurrently as a laboratory with this course. The student observes, assists with and performs procedures in the clinical setting. Students participate in clinical practice for three full days per week during the fall session and five days per week during the winter intersession. 4 credit hours.

NMT 130 NUCLEAR MEDICINE INSTRUMENTATION I

Covers the components, function, operation, and quality assurance procedures for nuclear medicine imaging equipment, including planar, SPECT, and multicrystal cameras, and 511 keV imaging units. Also includes nuclear medicine computers and image recording devices. 3 lecture hours and 3 laboratory hours per week. 4 credit hours.

NMT 131 NUCLEAR MEDICINE INSTRUMENTATION II

Covers the components, function, operation, and quality assurance procedures for non-imaging nuclear medicine equipment, including survey meters, dose calibrators, well counters, and uptake probes. 3 lecture hours per week. 3 credit hours.

NMT 135 RADIATION BIOLOGY AND RADIATION PROTECTION

For non-radiographers. Teaches radiation biology, radiation protection and regulations specific to nuclear medicine. 2 lecture hours per week. 3 credit hours.

NMT 140 RADIOCHEMISTRY AND RADIOPHARMACY

Covers all aspects of radiopharmacy including kit and dose preparation, biorouting, quality control, interfering agents, chemical composition, and radiation safety. Only offered spring semester. Corequisite/Prerequisite: CHE 105. 3 lecture hours per week and 50 hours of laboratory per semester. 4 credit hours.

NMT 201 HEALTH CARE TODAY

A survey of the current health care delivery system in the United States. Includes discussion of current health care delivery issues. Online course. 1 credit hour.

NMT 202 ELECTROPHYSIOLOGY

Teaches preparation of patient for ECG and interpretation of normal and abnormal ECG's. 2 lecture hours per week for 6 week summer session. 1 credit hour.

NMT 222 NUCLEAR MEDICINE PROCEDURES III

Includes a review of the anatomy and physiology of systems covered. Teaches pathology, and the nuclear medicine procedures used to evaluate a body system or disease state. Clinical Practicum III is taken concurrently as a laboratory with this course. The student observes, assists with and performs procedures in the clinical setting. Student participates in clinical practice for four full days per week. 2 lecture hours per week. 2 credit hours.

NMT 240 NUCLEAR MEDICINE SEMINAR I

Includes studies in interpersonal communications, problem solving, biomedical ethics and medical law. Only offered summer session. Prerequisites: NMT 120, NMT 121, NMT 130, NMT 131, NMT 140, NMTC 120, NMTC 121. 1 lecture hour per week for summer session. 1 credit hour.



NMT 241 NUCLEAR MEDICINE SEMINAR II

Includes clinical correlations of studies with various disease states, case study presentations, and reviews of research and technical literature. Prerequisite: NMT 240. 2 lecture hours per week summer session. 2 credit hours.

**NMTC 100 CLINICAL PRACTICUM I**

Student observes, assists with, and performs procedures in the clinical setting. Student participates in clinical practice for two full days per week for a total of 256 hours of clinical practice. Required course first semester. During the winter intersession, student participates in clinical practice for a single five-day week for a total of 40 hours of clinical practice.

NMTC 121 CLINICAL PRACTICUM II

Continuation of Clinical Practicum I. Student participates in clinical practice for three full days per week for a total of 384 hours of clinical practice. Co-requisite: NMT 121.

NMTC 222 CLINICAL PRACTICUM III

Continuation of Clinical Practicum II. Student participates in clinical practice for four full days per week for a total of 384 hours of clinical practice. Co-requisite: NMT 222.

**NURE 130 NURSING TRENDS AND CONCEPTS**

This course introduces the student to the profession of nursing, its evolution, current trends and issues. The role of the nurse within the health care delivery system is incorporated throughout the course. An overview of nursing theories and conceptual frameworks will be presented, with an emphasis placed on Orem's self-care approach to nursing practice. Nursing process will be introduced as the method of formulating and providing care in nurse-client interactions. A review of basic math principles will be conducted with later emphasis on dosage calculation for medication administration. Students will be introduced to selected nursing care techniques related to client comfort and safety. The theory base provided in NURE 130 will be built upon and applied in subsequent nursing courses. Prerequisites: Completion of all developmental courses and G.P.A. of 2.3 or higher. Corequisites: BIO 105, CHE 105 or CHE 113, ENG 101. 4 lecture hours per week. 4 credit hours.

NURE 131 NURSING I

Nursing 131 is an introductory course designed to establish the foundations of knowledge, attitudes, and perceptual motor skills necessary for beginning practice. Theoretical nursing concepts and related skills will emphasize universal requisites. The basic needs of man across the life span will be the organizational framework of the course. The role of the nurse in the multi-cultural health care delivery system will focus on nursing care for selected health problems. Commonly seen health deviations within the adult population will be introduced. Subsequent nursing courses build and expand on the foundational concepts and skills presented in this course. Students participate in clinical experiences in the Skill Laboratory and acute and convalescent care settings for application of fundamental nursing principles. Prerequisites: NURE 130, BIO 105, ENG 101, CHE 105 or CHE 113. G.P.A. of 2.3 or higher. Corequisites: BIO 106, PSY 101. 4 lecture hours and 12 clinical hours per week. 8 credit hours.

NURE 132 NURSING II

Nursing 132 builds upon the foundation of Nursing 130/131. It explores the role of the professional nurse as a member of the health care team utilizing beginning critical thinking and problem solving skills while caring for adults experiencing acute/chronic disruptions of normalcy. The student will be utilizing the nursing process, developing and refining clinical skills, as well as establishing priorities in predictable health care situations. Teaching/Learning principles are emphasized. Learning experiences are provided in the classroom, skill lab, and in multi-cultural adult medical/surgical facilities and the community. Prerequisites: NURE 131, BIO 106, PSY 101. G.P.A. of 2.3 or higher. Corequisites: BIO 108, PSY 205. 4 lecture hours and 12 clinical hours per week. 8 credit hours.

NURE 231 NURSING III

Nursing 231 builds upon the foundation of NURE 130, 131, and 132, utilizing Orem's Self-Care framework. It explores the nurse's role in caring for the normal pediatric client and childbearing family. In addition, it explores those client situations with acute and chronic disruptions of normalcy, as well as complex health deviations that may be life-threatening. Clinical experiences are provided in a variety of structured multi-cultural health care settings with a parent-child focus. Prerequisites: NURE 132, BIO 108, PSY 205. G.P.A. of 2.3 or higher. Corequisites: ENG 102, SOC 101. 4 lecture hours and 12 clinical hours per week. 8 credit hours.

NURE 232 NURSING IV

This course emphasizes the practice of nursing as it relates to adults experiencing complex health deviations that are potentially life threatening events. Within the context of the nursing process, the NURE 232 nursing student, utilizing critical thinking skills, gains experiences in organizing, prioritizing, and evaluating care for clients by assisting them to overcome those deficits which interfere with self-care. Experiences are provided in a variety of multi-cultural healthcare settings such as the mental health units, acute care units, and medical/surgical units. Prerequisites: NURE 231, SOC 101, ENG 102, CHE 114 if CHE 113 was taken, G.P.A. of 2.3 or higher. Corequisites: (2) Humanities Electives. 5 lecture hours and 15 clinical hours per week. 10 credit hours.

NURE 240-242 SELECTED TOPICS IN NURSING (ELECTIVE COURSES)

Studies of selected events, topics, issues, or skills based on timely concerns, student requests, or community interest. These courses are designed to enhance or expand professional nursing knowledge and skills beyond the core curriculum. Individual topics will be announced prior to registration; one, two, or three credits will be offered depending on the course format and hours. Prerequisite: Permission of the instructor. 1, 2, or 3 credit hours.

NURE 250 NURSING CARE OF THE CLIENT WITH A MEDICAL SURGICAL HEALTH DEVIATION

This introductory transition course is designed to build upon the foundation of the LPN education. This course emphasizes the role of the professional registered nurse within the health care delivery system. An overview of nursing theories and conceptual frameworks with specific consideration to Orem's Self-Care Framework will be presented. A review of pharmacological concepts and medication administration will be conducted. Within the context of the nursing process, the student will be refining and developing clinical skills while caring for clients experiencing acute-chronic disruptions in normalcy with emphasis on critical thinking, physical assessment, and teaching/learning principles. Clinical experiences are provided in a variety of structured, multi-cultural, acute/chronic healthcare settings. Other learning experiences will occur in the classroom with assigned activities in the computer and skills laboratories. Prerequisites: Proof of current LPN license, satisfactory completion of the College Placement Test/Course or waiver, BIO 105, BIO 106, BIO 108, CHE 105, or CHE 113 and CHE 114, ENG 101, ENG 102, PSY 101, PSY 205, SOC 101. G.P.A. of 2.3 or higher. 3 lecture hours and 9 clinical hours per week. 6 credit hours.



NURE 260 NURSING CARE OF CHILDREN AND THEIR FAMILIES

This course builds upon the foundation of NURE 250 and LPN education, utilizing Orem's Self-Care Framework. It explores the role of the professional registered nurse in caring for the pediatric client. Emphasis is placed on pediatric normalcy in a child experiencing an acute or chronic health deviation from infancy through adolescence. A significant aspect of this course is an understanding of the concepts of atraumatic care, family advocacy, and an interdisciplinary approach to health care. The student will continue to utilize and modify the nursing process and teaching/learning strategies while refining critical thinking and clinical skills. Clinical experiences are provided in a variety of structured, multi-cultural, pediatric healthcare settings. Other learning experiences will occur in the classroom with assigned activities in the computer and skill laboratories. Prerequisites: NURE 250. G.P.A. 2.3 or higher. 1.5 lecture hours and 4.5 clinical hours per week. 3 credit hours.

NURE 270 NURSING CARE OF WOMEN AND THE CHILDBEARING FAMILY

This course builds upon the foundation of NURE 250 and LPN education, utilizing Orem's Self-Care Framework. It explores the role of the professional registered nurse as a member of a multi-disciplinary team in caring for women and the childbearing family. Emphasis is placed on health education and community resources in relation to women's health and the childbearing cycle. Deviations from the normal physiologic and psychosocial development are explored. The student will continue to utilize and modify the nursing process and teaching/learning strategies while refining critical thinking and clinical skills. Clinical experiences are provided in a variety of structured, multi-cultural healthcare settings. Other learning experiences will occur in the classroom with assigned activities in the computer and skills laboratories. Prerequisites: NURE 250. G.P.A. of 2.3 or higher. 1.5 lecture hours and 4.5 clinical hours per week. 3 credit hours.

NURE 280 NURSING CARE OF THE CLIENT WITH MENTAL ILLNESS

This course builds upon the foundation of NURE 250 and LPN education, utilizing Orem's Self-Care Framework. It explores the role of the professional registered nurse as a member of a multi-disciplinary team in caring for clients with mental illness. Emphasis is placed on mental health education and community resources available to clients and their families. The student will continue to utilize and modify the nursing process and teaching/learning strategies while refining critical thinking and clinical skills. Clinical experiences are provided in a variety of structured, multi-cultural, psychiatric/mental health care settings. Other learning experiences will occur in the classroom with assigned activities in the computer and skill laboratories. Prerequisites: NURE 250, NURE 260, NURE 270. G.P.A. of 2.3 or higher. Corequisites: Two (2) Humanities electives. 1.5 lecture hours and 4.5 clinical hours per week. 3 credit hours.

NURE 290 NURSING CARE OF THE CLIENT WITH A COMPLEX MULTI-SYSTEM HEALTH DEVIATION

This course builds upon the foundations of NURE 260, NURE 270, NURE 280 and LPN education, utilizing Orem's Self-Care Framework. It explores the role of the professional registered nurse as a member of a multi-disciplinary team in caring for clients with complex multi-system medical-surgical health deviations. Emphasis is placed on organizing, prioritizing, and evaluating nursing care for clients by assisting them with self-care deficits. The student will continue to utilize and modify the nursing process and teaching/learning strategies while refining critical thinking and clinical skills. Clinical experiences are provided in a variety of structured, multi-cultural, acute health care settings. Other learning experiences will occur in the classroom with assigned activities in the computer and skill laboratories. Prerequisites: NURE 250, NURE 260, NURE 270, NURE 280. G.P.A. of 2.3 or higher. Corequisites: Two (2) Humanities electives. 1.5 lecture hours and 4.5 clinical hours per week. 3 credit hours.





NURM 100 MATHEMATICS FOR PHARMACOLOGY

A course primarily designed to prepare students with the definitive mathematical concepts necessary to ensure safe administration of medications. The metric and household systems are reviewed and applied. In addition to mathematical concepts, correlation of pharmacological theory to nursing practice will be emphasized. 1 lecture hour per week. 1 credit hour.

NURM 119 INTRODUCTION TO NURSING

This course is designed to provide the student nurse with the knowledge necessary for registered nurse practice. The role of the accountable, responsible registered nurse is explored through such topics as the profession of nursing, its historical perspectives and Orem's Self Care Theory. Emphasis is placed on the nursing process and the critical thinking necessary for practice. Integrated throughout the course are concepts and issues that relate to nursing practice: the nurse patient relationship, effective communication, self care and wellness, culture, teaching and learning, nutrition, pharmacology and current ethical and legal considerations. The theory base provided for in this course will be built upon and applied in subsequent nursing courses. 3 credit hours.

NURM 120 LPN TRANSITION COURSE

Nursing M120 serves as a bridge course designed to facilitate the transition of the student from the role of the LPN to the role of a student preparing for RN practice. The course will introduce the student to the philosophy, objectives, and conceptual framework of the Muhlenberg Regional Medical Center School of Nursing program. The nursing process will be introduced and utilized in planning care for adults with selected basic care need/self-care deficits. Nursing theory, nutrition, pharmacology, psychosocial, ethical and legal concepts related to nursing practice will be examined. The role of the registered nurse as a member of the nursing and health teams will be explored. Laboratory experiences will be provided in adult medical-surgical clinical and classroom facilities. Prerequisites: Current LPN license, BIO 105 and 106, PSY 101, ENG 101, CHE 105 or 113, and SOC 101. 7.5 lecture and 7.5 laboratory hours per week. 4 credit hours.

NURM 121 NURSING I

This course is designed to establish the foundation of knowledge, attitude and perceptual motor skills necessary for registered nurse practice. The role of the accountable, responsible registered nurse as it relates to the care of clients experiencing actual/potential, commonly occurring simple basic need/health deviations is explored. Within the context of the nursing process, the assessment phase is stressed. The student nurse gains experiences in the systematic data collection through the use of the nursing history and physical examination. Emphasis is placed on the application of beginning problems and teaching and learning principles. Laboratory experiences are provided in the classroom laboratory setting as well as medical-surgical units, nursing homes and any other clinical sites to meet the course objectives. Prerequisites: BIO 105, CHE 105, ENG 101, NURM 100, NURM 119. Corequisites: BIO 106, PSY 101. 4 lecture hours per week and 12 laboratory hours per week. 8 credits.

NURM 122 NURSING II

This course explores the role of the accountable, responsible registered nurse as it relates to the care of the childbearing and childrearing family and clients experiencing actual/potential, commonly occurring, increasing to the complex health deviations. Within the context of the nursing process, the diagnostic phase is stressed. The student nurse gains experiences in analyzing and interpreting patient data for an accurate nursing diagnosis in the clinical setting. Emphasis is placed on the application of effective communication, self care and wellness, current legal, ethical and social problems and teaching/learning principles. Laboratory experiences are provided in the classroom laboratory setting as well as medical-surgical units, nursing homes and any other clinical sites to meet the course objectives. Prerequisites: NURM 121 and its corequisites. Co-requisites: BIO 108, PSY 205. 4 lecture hours and 2 laboratory hours per week. 8 credit hours.

NURM 221 NURSING III

This course explores the role of the accountable, responsible registered nurse as it relates to the care of clients experiencing actual/potential, commonly occurring, complex health deviations. Within the context of the nursing process, the planning phase is stressed. The student nurse gains experiences in setting realistic patient outcomes and personalizing nursing interventions for two clients in the clinical setting. Emphasis is also placed on developing therapeutic communication skills and teaching-learning principles which assist the client in overcoming self-care deficits. Laboratory experiences are provided in the classroom laboratory setting as well as medical-surgical units, psychiatric facilities, extended care facilities and community agencies. Prerequisites: NURM 122 and its corequisites. Corequisites: SOC 101, ENG 102. 4.5 lecture hours and 13.5 laboratory hours per week. 9 credit hours.



NURM 222 NURSING IV

This course emphasizes the role of the accountable, responsible registered nurse as it relates to the care of clients experiencing actual/potential, commonly occurring multiple complex deviations. Within the context of the nursing process, the evaluation phase is stressed. The student nurse gains experience in organizing, prioritizing and evaluating care for a small group of clients in the clinical setting. Emphasis is also placed on increasing therapeutic communication skills and teach-learning principles which assist the client in overcoming self-care deficits. Laboratory experiences are provided in the classroom laboratory setting as well as medical-surgical and critical care units and community agencies. Prerequisites: NURM 221 and its corequisites. Corequisites: 2 Humanities Elective Courses. 4.5 lecture hours and 15 laboratory hours per week. 9 credit hours.

NURM 141 ACCELERATED NURSING

Nursing M141 is a comprehensive course designed to establish a sound foundation of knowledge, attitudes and perceptual motor skills necessary for accountable, registered nurse practice. Theoretical nursing concepts and related skills with emphasis on self-care, developmental requisites and the basic needs of Man form the organizational framework of the course. The nursing process, ethical/legal/historical constructs, communication techniques, teaching-learning principles and nutritional, pathophysiological, pharmacological and psycho-social concepts are applied to meeting the nursing needs of clients experiencing commonly occurring health problems. Prerequisites: Baccalaureate degree or higher and BIO 105 and 106, BIO 108, CHE 105, NURM 100, PSY 101 and 205, ENG 101 and 102, SOC 101, 2 Humanities electives. 6.5 lecture hours and 19.5 laboratory hours per week. 13 credit hours.

NURM 241 ACCELERATED NURSING SUMMER

Nursing M241 explores the role of the nurse as an accountable and responsible member of the health team. The student implements effective systems of nursing care with clients who are experiencing commonly-occurring psychological and psycho-social health deviations as well as the concerns of childbearing and childrearing. Ethical/legal, nutritional, pharmacological, developmental, psychological, and sociological concepts related to meeting the nursing needs of clients are integrated. Emphasis is placed on teaching-learning principles and the development of therapeutic communication techniques within the nurse-client relationship. Prerequisites: NURM 141. 6.5 lecture hours and 20.6 laboratory hours per week. 11 credit hours.

NURM 242 NURSING

This course emphasizes the role of the accountable, responsible registered nurse as it relates to the care of clients experiencing commonly occurring complex health deviations which may be chronic, acute, or potentially life threatening in nature. Within the content of the nursing process, the nursing student gains experiences in organizing, prioritizing and evaluating care for small groups of patients by assisting them to overcome those deficits which interfere with self-care. Nutritional, pharmacological, psychological and sociological needs of patients as well as ethical/legal issues related to the care of chronically ill and acutely ill patients are discussed. Emphasis is also placed on increasing communication skills and implementing teaching learning principles. Experiences are provided in a variety of structured health care settings such as the acute care units and medical-surgical units. Prerequisite: NURM 241. 6.5 lecture hours and 19.5 laboratory hours per week. 13 credit hours.



OCE 101 INTRODUCTION TO MARINE SCIENCES

A field oriented lower division undergraduate course covering the principal disciplines in the marine sciences. The course is designed to help the student evaluate his/her interest in the marine science. No prerequisites. 4 credit hours.

OCE 103 INTRODUCTION TO MARINE BIOLOGY

A field and laboratory oriented undergraduate course covering the biology and characteristics of marine plants and animals. The course is designed to provide the student with instruction and experience in collecting and identifying examples of local marine flora and fauna. No prerequisites. 4 credit hours.

OCE 201 OCEANOGRAPHY

A study of the physical and chemical properties of sea water, oceanic circulation, waves and tides, and estuarine and shoreline processes. Prerequisite: Advanced standing in the physical or biological sciences or permission of the instructor. 4 credit hours.



PED 101 CONCEPTS OF ADULT FITNESS

Through a series of lectures and practicums, various aspects of health and physical fitness are explored. In addition to mastering selected concepts concerning health and physical fitness, each student develops, through self-testing practicums, his/her own physical fitness profile and program. 2 lecture hours per week. 2 credit hours.

PED 107 DECISIONS FOR WELLNESS

Biology 107 without the laboratory component. This course will not fulfill a college laboratory science requirement. Permission of Department Chair required for registration. 3 lecture hours per week. 3 credit hours.

PED 110 BEGINNING GOLF

Beginning golf covers the basic techniques of the game of golf. Also covered in the course are the history of the game, the rules and etiquette of golf, and basic golf equipment. 1 lecture hour and 1 laboratory/demonstration hour per week. 1 credit hour.

PED 290 INDEPENDENT STUDY IN FITNESS AND WELLNESS

A one-semester course to cover an approved in-depth exploration of some aspects of health, fitness, and/or wellness. The course is intended to provide the students with an opportunity to expand his or her knowledge in one area beyond that which is presently offered in current health, fitness, and/or wellness courses. This course will not fulfill a science requirement and requires the recommendation and permission of the Department Chair and instructor as a prerequisite for registration. It is recommended that the student have at least one semester of college biology, PED 101, or a college-level health course. May be taken for 1, 2, 3 or 4 credits.



PHI 105 INTRODUCTION TO LOGICAL THINKING

The understanding and development of the fundamental principles of disciplined thinking, language and thought, patterns of argument and fallacies, reasoning and human life. Prerequisites: ENG 088, ENG 098. 3 lecture hours per week. 3 credit hours.

PHI 205 INTRODUCTION TO PHILOSOPHY

This course is an introduction to philosophy: what philosophy is, what its objectives are and what its major areas of focus and its methods are. The course is organized around a study of major problems and pertinent questions in philosophy, including the nature of being, of the world, of the person, of knowing, and of human conduct. These philosophical problems and related issues are explored through selected readings in philosophy that introduce the student to major philosophers within the Western philosophical tradition. Corequisite: ENG 101. 3 lecture hours per week. 3 credit hours.

PHI 206 HISTORY OF ANCIENT AND MEDIEVAL PHILOSOPHY

A study of the major figures and movements in Western thought from the early Greeks to the end of the Middle Ages. The central part of the course is devoted to Plato, Aristotle, Augustine, and Thomas Aquinas. Selected works are read and analyzed. Prerequisites: ENG 089, ENG 099, HIS 101-102, or consent of the instructor. 3 lecture hours per week. 3 credit hours.

PHI 207 HISTORY OF MODERN PHILOSOPHY

A study of the major figures and movements in Western thought from 1600 to the present. The course focuses on the philosophies of Hobbes, Descartes, Hume, and Kant. Selected works are read and analyzed. Prerequisites: ENG 089, ENG 099, HIS 101-102, or consent of the instructor. 3 lecture hours per week. 3 credit hours.

PHI 209 SOCIAL JUSTICE

An analysis of some of the major theories of social justice, focusing on philosophical assumptions and practical applications. Special consideration is given to problems, such as political obligation and individual autonomy, the distribution of social goods, sovereignty and political disobedience, the nature of law, and justifications of punishment. Prerequisites: ENG 089, ENG 099. 3 lecture hours per week. 3 credit hours.



PHI 210 ETHICS

A focus on both ethical theory and applied ethics as classical and contemporary ethical theories are examined and a variety of ethical issues and dilemmas are considered. This course can serve as either a general elective or a humanities elective. Prerequisite: ENG 101. 3 lecture hours per week. 3 credit hours.

PHI 212 LOGIC AND CRITICAL THINKING

An exploration of the elements of sound reasoning, including the nature of arguments, both deductive and inductive, an examination of informal and formal fallacies, and of the nature of various forms of reasoning. Examples of fallacious reasoning will be drawn from politics, advertising, business, morality, and religion. This course is designed to enhance students' critical thinking and promote success in academic inquiry across the disciplines. Prerequisite: ENG 101. 3 lecture hours per week. 3 credit hours.

**PHY 101 GENERAL PHYSICS I**

Basic concepts of measurement; composition and resolution of forces; force systems; kinematics of a particle; dynamics of a particle; systems of forces; rotational motion; work, energy and power; momentum; elastic properties of solids and liquids; mechanics of fluids; temperature and heat; thermal expansion; heat transfer. Prerequisites: ENG 088, PHY 005 or equivalent, MAT 143. Co-requisite: PHYL 101. 3 lecture hours per week. 3 credit hours.

PHYL 101 GENERAL PHYSICS I LABORATORY

Physics laboratory to accompany PHY 101. Co-requisite: PHY 101. 3 laboratory hours per week. 1 credit hour.

PHY 102 GENERAL PHYSICS II

Ideal gas laws; thermodynamics; wave motion; stationary waves; sound waves; acoustics; light and illumination; reflection; refraction; thin lines; optical instruments; dispersion; spectra; interference and diffraction; polarization of light; electrostatics; capacitance; electric circuits; power; magnetic field of electric current; induced E.M.F.; inductance; alternating current series circuits. Prerequisite: PHY 101. Co-requisite: PHYL 102. 3 lecture hours per week. 3 credit hours.

PHYL 102 GENERAL PHYSICS II LABORATORY

Physics laboratory to accompany PHY 102. Co-requisite: PHY 102. 3 laboratory hours per week. 1 credit hour.

PHY 111 MECHANICS

Study of statics, kinematics, Newton's laws, friction, work, energy, power, circular motion, rotational dynamics, momentum and conservation of momentum. Prerequisite: EGG 105, MAT 171 and MAT 148. Corequisite: PHYL 111. 3 lecture hours per week. 3 credit hours.

PHYL 111 MECHANICS LABORATORY

Physics laboratory to accompany PHY 111. Co-requisite: PHY 111. 3 laboratory hours per week. 1 credit hour.

PHY 125 ELEMENTS OF PHYSICS

Fundamental ideas and concepts of physics for students in health programs: measurements and units, motion of bodies, forces, work and energy, momentum, temperature and heat, waves, optics, electricity and magnetism, radiation, atomic and nuclear physics. Prerequisites: ENG 088, MAT 119. Co-requisite: PHYL 125. 3 lecture hours per week. 3 credit hours.

PHYL 125 ELEMENTS OF PHYSICS LABORATORY

Physics laboratory to accompany PHY 125. Co-requisite: PHY 125. 2 laboratory hours per week. 1 credit hour.

PHY 201 ELECTRICITY AND MAGNETISM

A study of electrostatics, electric and magnetic fields, electromagnetism, electric and magnetic circuits, induced electromotive forces, fundamental electrical measurements, circuits containing inductance and capacitance, basic electronics. Prerequisite: PHY 111. Corequisites: MAT 271 and PHYL 201. 3 lecture hours per week. 3 credit hours.

PHYL 201 ELECTRICITY AND MAGNETISM LABORATORY

Physics laboratory to accompany PHY 201. Co-requisite: PHY 201. 3 laboratory hours per week. 1 credit hour.

PHY 285 SPECIAL TOPICS IN PHYSICS

Topics selected to meet the particular needs and interests of students. Credit by arrangement.



PMD 106 PARAMEDIC I

This course will focus on an introduction to New Jersey EMS structure. Students will gain knowledge in the roles, responsibilities and regulation governing this profession. There will be a review of human structure and function. An extensive review of the Cardiac, Respiratory, Neurological and Renal systems will offer a foundation for assessment skills, differential diagnosis skills and understanding action potential of pharmaceutical agents. Students will understand pharmacology, drug dosaging, calculation and administration. Students will learn effective techniques for patient assessment and clinical decision making skills. Prerequisites: Please refer to certificate program requirements and MAT 022. Corequisite: PMD 107. 7 lecture hours per week. 7 credit hours.

PMD 107 PARAMEDIC PROCEDURES I

This course is intended to provide students with the ability to master the necessary clinical skills mandated by the U.S. DOT paramedic curriculum through hands-on learning and demonstration. The structure of this course will be through skills station rotations where students are in groups of four or less to each instructor. An overview of the skill and specific techniques for successful completion will be taught or reviewed. Students will be encouraged to decide treatment based upon clinical scenarios given by the instructor. Prerequisites: Please refer to certificate program requirements and MAT 022. Corequisite: PMD 106. 6 lecture hours per week. 6 credit hours.

PMD 108 PARAMEDIC II

Students will gain intense knowledge on electrocardiology interpretation (EKG) and treatments. Upon completion of this course students will correctly treat, document and relay a detailed report to medical control. Students will describe the indications, contraindications and side effects of all MICU regulated procedures and 55 pharmaceutical agents carried by paramedics. Students will understand NJ State Standing Orders for adult and pediatric patients. Students will be able to identify patterns in assessments based upon specific medical emergencies. This course will prepare students for a safe approach to special situations involving harmful agents. Students will gain understanding in age specific education including geriatric and pediatrics. At the conclusion of this course, students will successfully complete both a written and practical final evaluation. Prerequisites: PMD 106 and PMD 107 with a grade of "C" or better. Corequisite: PMD 109. 7 lecture hours per week for 22 weeks. 10 credit hours.

PMD 109 PARAMEDIC PROCEDURES II

This course is intended to provide students with the ability to master the necessary clinical skills mandated by the U.S. DOT paramedic curriculum. The structure of this course will be through skill station rotations where students are in groups of four or less to each instructor. Students will be encouraged to decide treatment based upon clinical scenarios given by the instructor. Paramedic Procedures II reinforces the lecture material pertaining to clinical skills and clinical decision-making. This course will utilize assessment tools of skill proficiency set forth by the U.S. DOT national curriculum. Prerequisites: PMD 106 and PMD 107 with a grade of "C" or better. Corequisite: PMD 108. 6 lecture hours per week for 22 weeks. 9 credit hours.



PNU 110 NURSING CONCEPTS

This course introduces the Practical Nursing student to the profession of nursing and the role of the LPN. Basic concepts and trends in nursing practice and the health care delivery system will be discussed. The integration of self-care and critical thinking principles into the nursing process will be a key focus. Other essential elements of nursing practice will be presented, including communication and client teaching. Students will practice and demonstrate beginning proficiency in the calculation of drug dosages and the use of medical terminology. Prerequisites: All Developmental Course Work and GPA 2.5. Corequisites: ENG 101 (or ENG 112), BIO 102, PSY 101. 60 lecture hours. 4 credit hours.



PNU 120 NURSING FUNDAMENTALS

This course introduces the student to the basic information needed by the Practical Nurse in order to begin to provide nursing care. The focus is on the individual's attainment of universal self-care requisites. Students will learn about fundamental client assessment and nursing interventions, including vital signs, mobility and safety measures, hygienic care, and medication administration. Beginning care planning and critical thinking will be integrated throughout the course. Content that is presented in the classroom will be reinforced with clinical experiences in the skills laboratory and client care settings where students will apply basic nursing principles.

Prerequisites: PNU 110, ENG 101 (or ENG 111/112), BIO 102, PSY 101 and GPA 2.5. Corequisite: PNU 130. 4 lecture hours & 2 clinical hours per week. 6 credit hours.

PNU 130 ADULT HEALTH I

In this course, the student will continue to use the nursing process, within the self-care framework, to assist clients in meeting their physiological and psychosocial needs in an acute care setting. Focus will be placed on the role of the practical nurse in obtaining data, and planning and implementing care for clients having diverse health problems. Emphasis in theory will be placed on client assessment and an understanding of the common conditions that alter an individual's state of wellness. Care of clients pre- and postoperatively, and those experiencing fluid and electrolyte imbalances, infectious diseases, and selected cardiovascular and respiratory deviations will be discussed. Principles of critical thinking and therapeutic communication will be integrated throughout the course. Prerequisites: PNU 110, PNU 120, ENG 101 (or ENG 111/112), BIO 102, PSY 101, GPA 2.5. 4 lecture hours per week and 2 clinical hours per week. 6 credit hours.

PNU 140 MATERNAL/CHILD HEALTH

The focus of this course is the role of the Practical Nurse role as a member of a multidisciplinary health team caring for women and their families during the childbearing experience. Course content includes health promotion and maintenance for the pregnant woman during the antepartum, intrapartum, and postpartum periods. Economic and sociocultural issues that influence the childbearing family will be discussed. The student will continue to use the nursing process within the self-care framework in providing care to the childbearing family. Clinical experiences are held in inpatient and/or ambulatory maternal/child health settings. GPA 2.5. Prerequisites: All prior program requirements. Corequisite: PSY 205. 2 lecture hours and 1 clinical hour per week. 3 credit hours.

PNU 150 PEDIATRIC HEALTH

In this course, the student will explore the practical nurse role as a member of a multidisciplinary team caring for pediatric clients. Child health theory is presented within a self-care framework of the nursing process. Knowledge and skills are developed to provide nursing care to children with commonly occurring or recurring health problems. Focus will be placed on growth and development from infancy through adolescence. Health promotion, maintenance, and restoration are emphasized in clinical experiences with children and their families. Clinical experiences will be in community well child and inpatient pediatric settings. GPA 2.5. Prerequisites: All prior program requirements. Corequisite: PSY 205. 2 lecture hours and 1 clinical hour per week. 3 credit hours.



PNU 160 MENTAL HEALTH

In this course, the student will explore the role of the Practical Nurse as a member of a multidisciplinary team caring for clients with mental health deviations. The course content includes concepts and application of therapeutic communication, current and evolving principles in mental health care, legal and ethical guidelines, and human development needs. Clinical focus will be directed toward a client centered communication interaction that incorporates theoretical mental health nursing principles and attainment of self-care requisites. Critical thinking continues to be used within a self-care framework of the nursing process. Clinical experiences will be in inpatient mental health settings, with possible observation at a substance abuse program. GPA 2.5. Prerequisites: All prior program requirements. Corequisite: PSY 205. 2 lecture hours and 1 clinical hour per week. 3 credit hours.

PNU 170 ADULT HEALTH II

In this course the student focuses on meeting the holistic self-care needs of the adult client in the acute care setting. In collaboration with the clinical instructor and RN health team member, the student will be given the opportunity to demonstrate use of critical thinking skills in collecting subjective and objective information, prioritizing care, intervening in meeting client basic care needs, evaluating outcomes of care, and reporting and recording care. Concepts introduced in previous nursing courses are expanded and integrated into clinical and theory experiences. Emphasis in theory will be placed on more complex medical-surgical health deviations, the assessment of signs and symptoms and recognition of medical and nursing interventions, including medication and nutrition therapies. Critical thinking skills will continue to be an avenue for student success in test-taking and clinical performance. Prerequisites: ENG 101, (or ENG 111/112), BIO 102, PSY 101 & PSY 205. GPA 2.5. Corequisite: Elective. 6 lecture hours and 3 clinical hours per week. 9 credit hours.

PNU 180 ROLE TRANSITION/REVIEW

This course is designed to assist the student to prepare for the NCLEX – PN Licensure Examination and the assumption of a position as a Licensed Practical Nurse. Concepts of role transition and accountability will be discussed, as well as skills required for obtaining employment in a health care agency. Emphasis will be placed on written and computerized testing of medical-surgical, obstetrical, pediatric, and mental health nursing principles. Content review will be based on areas of identified student needs. Test-taking strategies and anxiety reduction techniques will be discussed. Comprehensive exams will be given for student assessment of status. Prerequisite: All prior program requirements and GPA 2.5. 2 lecture hours per week. 2 credit hours.



PSRT 1019 CLINICAL PRACTICUM IN PSYCHOSOCIAL REHABILITATION I

Students will observe and identify common interventions for working with the individual with serious mental illness. Clinical experiences (16 hours weekly, for a minimum of 240 hours) will emphasize participation under supervision in group activities, program tasks, skills training and skills practice. Classroom lectures and seminars will provide students with opportunities to integrate theory with practical experience. Prerequisites: UPR 101, PSRT 1102, 1103, 1204. 3 lecture hours and 16 clinical hours per week. 6 credit hours. Students register through UMDNJ for this course.

PSRT 1102 COMMUNICATION TECHNIQUES IN INTERVIEWING AND COUNSELING

Introduces students to the principles and skills necessary for the effective use of therapeutic communication. The student will learn about values and attitudes impacting on professional interpersonal relationships. Classroom lectures and practice sessions expose students to interviewing, and helping principles through active participation in a faculty supervised clinical practice. Prerequisite: UPR 101 or permission of Department Chair. 2 lecture hours and 2 laboratory hours per week. 3 credit hours. Students register through UMDNJ for this course.

PSRT 1103 INTRODUCTION TO GROUP DYNAMICS

Introduces the student to the principles, and skills necessary for the effective use of groups to engage people, and achieve goals. Classroom lectures and practice sessions demonstrate group dynamics, and group process. Students also participate in faculty supervised group experiences. Prerequisite: UPR 101 or permission of Department Chair. 2 lecture hours and 2 laboratory hours per week. 3 credit hours. Students register through UMDNJ for this course.

PSRT 2019 CLINICAL PRACTICUM IN PSYCHOSOCIAL REHABILITATION II

Enables students to continue to develop intervention skills and strategies. Faculty supervised field experience (16 hours weekly, for a minimum of 240 hours) provides students with opportunities to develop appropriate clinical judgment, as well as initial participation in service planning and choice of interventions. Students will begin to lead activities under supervision and be introduced to documentation requirements. Prerequisite: PSRT 1019. 3 lecture hours and 16 clinical hours per week. 6 credit hours. Students register through UMDNJ for this course.



PSRT 2121 COMMUNITY RESOURCE MANAGEMENT AND THE INDIVIDUAL WITH SEVERE MENTAL ILLNESS

Introduces students to the principles and practices of systems utilization for the improved functioning of people with psychiatric disabilities. Needs evaluation and goal formulation will be the basis of case coordination and resource linking within a systems framework. Lectures and course activities provide students with opportunities to explore the relationship of services to the individual's needs. Prerequisites: UPR 101, PSRT 1102, 1103, 1204. 3 lecture hours per week. 3 credit hours. Students register through UMDNJ for this web based course.

PSRT 2231 EMERGING TOPICS IN PSYCHOSOCIAL REHABILITATION AND TREATMENT

Acquaints the students with emerging developments in the field of psychosocial rehabilitation and treatment, focusing on current issues and trends. The purpose of the course is to help the student conceptualize psychosocial rehabilitation as a diverse and evolving field. Pre-requisite: PSRT 1019, 2121. 3 lecture hours per week. 3 credit hours. Students register through UMDNJ for this web based course.



PSY 101 GENERAL PSYCHOLOGY

Introduction to the scientific study of behavior, principles of motivation, emotions, perception, learning, memory, thinking, personality, and biological basis of behavior. Prerequisites: ENG 088, ENG 098, 099 if required, or permission of instructor. 3 lecture hours per week. 3 credit hours.

PSY 102 PSYCHOLOGY OF PERSONALITY

Personality dynamics in the light of the major theories of personality, Freudian as well as non-Freudian. Includes an introduction to theory construction, personality assessment, and deviance. Prerequisite: PSY 101. 3 lecture hours per week. 3 credit hours.

PSY 105 GROUP DYNAMICS

An investigation of the roles and behavior of people in small group settings. Topics include roles and norms, leadership, decision processes, interpersonal communication, membership, attraction, and group theory. Participation in small group projects emphasized. Prerequisite: PSY 101. 3 lecture hours per week. 3 credit hours.

PSY 205 CHILD PSYCHOLOGY

Study of child behavior and development with reference to motor abilities, language, intelligence, emotional development. Emphasis is on normal human development in the early stages of life. Prerequisite: PSY 101; PSY 102 recommended. 3 lecture hours per week. 3 credit hours.

PSY 206 ADOLESCENT PSYCHOLOGY

Study of physiological, social, emotional, and intellectual development of adolescents; interests, motivations, home and social problems, sex differences, recreation, maladjustment, and delinquency. Prerequisite: PSY 101; PSY 102 recommended. 3 lecture hours per week. 3 credit hours.

PSY 207 SOCIAL PSYCHOLOGY

The course will focus on the ways in which human behavior is influenced or determined by the social situations in which it occurs. Topics include: social perception, attitudes, prejudice, interpersonal attraction, aggression, conformity, and group dynamics. Prerequisite: PSY 101. 3 lecture hours per week. 3 credit hours.

PSY 208 ABNORMAL PSYCHOLOGY

A study of anxiety disorders, psychoses, and other maladaptive behavior patterns, with emphasis on current concepts of their origin and treatment. Prerequisite: PSY 102, or permission of instructor. 3 lecture hours per week. 3 credit hours.

PSY 210 HUMAN SEXUALITY

The fundamentals of human sexuality: psychobiological mechanisms, psychosocial development, and cultural influences. Topics include the origins and development of sexuality, development of gender identities and sex roles, sexual behaviors and attitudes, and contemporary cultural issues. Prerequisite: PSY 101. 3 lecture hours per week. 3 credit hours.

PSY 211 CURRENT ISSUES IN PSYCHOLOGY

Presentation, and exploration of current social and/or psychological issues, material could include but is not limited to such issues as drugs, behavior disorders, eating disorders, sexually transmitted diseases, and adolescent suicides. Topics to be changed to remain current. 3 lecture hours per week. 3 credit hours.

PSY 212 PSYCHOLOGY OF AGING

An investigation of the theory and research involved in the study of the psychology of aging. Particular attention is focused on role and identity changes, personality changes, intelligence, sexuality, the psycho-social aspects of retirement, and death and dying. Participation in field work is highly recommended. Prerequisite: PSY 101. 3 lecture hours per week. 3 credit hours.

PSY 215 FIELD WORK IN PSYCHOLOGY

With permission of the department, any student who has successfully completed either PSY 101 or SOC 101, and is enrolled in a psychology, sociology, or education course, or students with exceptional qualifications may elect to engage in field work. The student must attend periodic seminars and/or prepare reports or other projects as required by the department staff. Credit will be based on a minimum of 30 hours in an approved institution for each hour of college credit per semester. This course may be repeated once. 1-3 credit hours per semester.

PSY 218 PSYCHOLOGY OF WOMEN

This course is designed to provide the student with up-to-date information on the Psychology of Women, the history of the field, and a view of the major theories of psychology from a gender-focused perspective. Instruction in research methods and critical thinking skills will enable the student to take a fresh look at issues such as women and the media, women and health (physical and mental), women and relationships and the diverse experiences of women from different backgrounds, all from a psychological viewpoint. Prerequisite: PSY 101. 3 lecture hours per week. 3 credit hours.

PSY 219 CHILD ABNORMAL PSYCHOLOGY

This course will introduce the student to the study of disordered behaviors in childhood and adolescence. The course will focus on the description and explanation of behavior and characteristics which significantly effect a child's functioning. Included areas of disorder are: Eating, Disruptive, Attention Deficit, Anxiety and Mood. Pervasive disorders, such as autism spectrum and mental retardation will be covered as well as those related to health and learning. Theoretical explanations and treatment will be emphasized. Diagnostic classification will also be a focus of the course. Prerequisites: PSY 101, PSY 205 or permission of instructor. 3 lecture hours per week. 3 credit hours.

PSY 270 TOPICS IN PSYCHOLOGY

Studies of selected events, issues, or topics in psychology chosen on the basis of timely concerns, community interests, students' requests, etc. These courses are of a timely or specialized nature and can be best offered not on a regularly scheduled basis, but rather periodically. Individual topics will be announced prior to registration; one, two, or three credits will be offered depending on hours and course format. 1, 2, or 3 credit hours.



PTA 102 INTRODUCTION TO REHABILITATION

This course introduces the student to the field of rehabilitation, concentrating on the philosophy of the Physical Therapy and Occupational Therapy professions and their respective roles in the team approach to patient care. Didactic course work is included for sterile techniques, exercise terminology, vital signs, and wheelchair parts. The student will visit various clinical settings to explore the diversity within the professions. Prerequisites: ENG 088, ENG 098, MAT 016 OR MAT 022 passed with a minimum grade of "C." 2 lecture hours per week. 2 credit hours.

PTA 115 FUNCTIONAL ANATOMY

Study of neuro-musculo-skeletal structures with an emphasis on the function of normal human movement. Review of basic kinesiological principles and how they affect human posture and movement. Introduction to manual muscle testing and goniometry. Prerequisites: All with a grade of "C": BIO 105, ENG 101, HUG 101, MAT 119, PSY 101. Corequisites: PTA 130, PTA 251. 3 lecture hours and 3 laboratory hours per week. 4 credit hours.



PTA 130 PHYSICAL THERAPY PROCEDURES I

This course teaches the student to implement basic physical therapy treatment programs. Didactic and laboratory practice are included for heat, light, and hydrotherapy modalities, ambulation, massage, bed positioning, wheelchair maneuverability, and transfers. Lab practice for selected nursing procedures is also included. An initial clinical experience of 8 hrs/week will allow the student an opportunity to utilize these skills under direct supervision. Prerequisite: All with a grade of "C" or better: BIO 105, ENG 101, HUG 101, MAT 119, PSY 101. Corequisites: PTA 115, PTA 251. 3 lecture, 9 laboratory hours and 4 clinical hours per week. 7 credit hours.

PTA 140 PHYSICAL THERAPY PROCEDURE II

A review of the pathological process, evaluation, and appropriate physical therapy procedures for selected orthopedic conditions commonly seen in physical therapy. A problem solving approach will be utilized to provide the student the opportunity to identify patients' needs and determine treatment modifications.

Prerequisites: PTA 115, PTA 130, PTA 251 all with a grade of "C+". 1 lecture hours and 6 laboratory hours per week. 3 credit hours.

PTA 217 CLINICAL SEMINAR AND PRACTICE I

This course is designed to integrate the students' clinical and didactic experiences by developing problem solving and interpersonal skills. Topics studied will include the health delivery system, legal and ethical issues relating to Physical Therapy intervention, documentation skills, and an introduction to *The Guide to Physical Therapy Practice*. The course will also explore the elements of effective interaction between a PTA and other professionals as well as the PTA and the patient. Areas including verbal and non verbal communication, personal and cultural bias and social versus therapeutic helping relationships will be discussed. The students will participate in two days of supervised PTA clinical experience for 15 weeks. Students must provide their own transportation. Prerequisites: All previous professional coursework with a minimum grade of "C+". Corequisites: PTA 220, PTA 221, ENG 102 and BIO 106. 3 lecture hours and 4 clinical hours per week. 7 credit hours.

PTA 220 PHYSICAL THERAPY PROCEDURES III

A review of the pathophysiological process, medical treatment, and appropriate physical therapy procedures for selected neurological conditions commonly seen in physical therapy. Physical therapy treatments will include an introduction to evaluate and to advanced therapeutic exercise, as well as thorough coverage of ADL, basic therapeutic exercise and modalities as they relate to each neurological condition. The components and principles of orthotics is included. The physics, physiology and procedures of electrotherapy will be covered. Prerequisites: All previous professional course work passed with a minimum grade of "C+", ENG 102, BIO 106. Corequisites: PTA 217, PTA 221. 4 lecture hours and 6 laboratory hours per week. 6 credit hours.

PTA 221 PHYSICAL THERAPY PROCEDURES IV

A review of the pathophysiological process, medical treatment, and appropriate physical therapy procedures for selected medical and pediatric conditions commonly seen in physical therapy. Physical therapy treatments will include an introduction to evaluation and to advanced therapeutic exercise, as well as a thorough coverage of ADL, basic therapeutic exercises and assistive devices as they relate to each pediatric and medical condition. Prerequisites: All previous professional course work passed with a minimum grade of "C+", ENG 102, BIO 106. Corequisites: PTA 217, PTA 220. 3 lecture hours and 3 laboratory hours per week. 4 credit hours.

PTA 223 CLINICAL SEMINAR

Advanced therapeutic exercise, psychosocial aspects of disability and dying, continuation of total treatment programs for selected conditions, and entry level preparation. Prerequisites: ENG 102, PTA 217, PTA 220, PTA 221 all passed with a grade of "C+" or better. Corequisite: PTA 224. 3 lecture hours per week. 3 credit hours.

PTA 224 CLINICAL PRACTICE II

Full time, supervised PTA clinical experience, own transportation required. Prerequisites: PTA 217, PTA 220, PTA 221. All previous professional course work passed with a minimum grade "C+." Corequisite: PTA 223 or permission of instructor. 36 clinical hours per week. 9 credit hours.

PTA 251 INDEPENDENT LIVING FOR THE DISABLED

An overview of selected barriers to illustrate the impact that a disability may have on a patient's lifestyle. The course offers the student an opportunity for investigation into problem solving for a given disability and the implied functional limitations. Prerequisites: All passed with a grade of "C" or better: BIO 105, BIO 106, ENG 101, ENG 102, HUG 101, MAT 119, PSY 101. PTA 102 passed with a minimum grade of "C+." 2 lecture hours per week. 2 credit hours.



RADM 101 INTRODUCTION TO MEDICAL RADIOGRAPHY

Introduction to the profession of Medical Radiography. The course includes a survey of general principles, techniques, and procedures in patient care, an introduction to medical terminology and the basics of radiation protection to include a comprehensive instruction on the usage of ionizing radiation, the effects and maximum permissible doses for the radiation worker and the public, and the proficient and accurate application of all methods of radiation protection. Additional topics include medico-legal aspects and professional ethics. 3 lecture hours per week. 3 credit hours.

RADM 102 RADIATION MATHEMATICS

To introduce the student to practical mathematics applications related to their field of study. The course will evolve through basic mathematics into formulas that apply to radiation exposure, dose, conversions, decay, attenuation, HVL, shielding, radiopharmaceutical and physics applications for all radiography, nuclear medicine technology and radiation therapy students. Prerequisite: MAT 119. 3 lecture hours per week. 2 credit hours.

RADM 110 PRINCIPLES OF RADIOGRAPHIC EXPOSURE I

The first of a 2 semester series developing in detail the theory of x-ray technique and its practical application in radiography, the arithmetic of radiology, the formation of the latent image, the development and characteristics of screens, the prime factors of radiography and the factors affecting radiographic quality. The components of the darkroom, film, and chemistry will be presented for a better understanding of film production. Prerequisite: RNT 103, MAT 119. 3 lecture hours per week. 3 credit hours.

RADM 120 RADIOLOGIC PROCEDURES I

In this first course of a series, the student will be introduced to the concepts of radiographic position, projection and view; the terminology of movement and direction of body parts and the central ray, handling of radiographic equipment and the code of ethics for Radiologic Technologists. The student will investigate the anatomy, limited pathology and radiographic positioning of the chest, abdomen, bony thorax, urinary system and upper extremity. They will be introduced to the contrast agents and organs visualized by means of a contrast medium while studying intravenous urography and tomography. The students will be introduced to a critical thinking model as it applies to radiographic procedures. Clinical education, based upon Clinical Competency Evaluation, parallels the level of radiographic procedures, techniques and principles. Prerequisite: RNT 101, BIO 105. 3 lecture hours per week. 3 credit hours.

RADM 121 RADIOLOGIC PROCEDURES II

This course is a continuation of the concepts, techniques and critical thinking skills initiated in RAD 120. Students will investigate the anatomy, limited pathology and Radiologic positioning of the shoulder girdle, lower limb, femur, pelvis, hip and the entire spinal column. Clinical education, based on Clinical Competency Evaluation, parallels the level of Radiologic procedures, techniques and principles. Prerequisite: RAD 120. 3 lecture hours per week. 3 credit hours.

RADM 122 RADIOLOGIC PROCEDURES III

This course includes a review of skull anatomy in which the student will identify the bones and structures of the skull. Radiographs will be used to locate and identify topographical landmarks and lines. Demonstration of proper positioning and film critique in the clinical setting will be utilized. The course will be accompanied by the appropriate clinical component. Prerequisite: RNT 103, BIO 105. 2 lecture hours per week. 2 credit hours.



RADM 135 RADIOBIOLOGY

A study of the genetic and somatic effects of ionizing radiation on biological systems. Includes study of the dangers of radiation, government standards, and rights of the public. Prerequisite: RNT 103. 2 lecture hours per week. 2 credit hours.

RADM 201 RADIOGRAPHIC PATHOLOGY

A survey of disease status of organs and organ systems with emphasis on the implication of radiographic technique employed with specific lesions. Prerequisites: BIO 105, BIO 106. 3 lecture hours per week. 3 credit hours.

RADM 211 PRINCIPLES OF RADIOGRAPHIC EXPOSURE II

A continuation of RAD 110. Includes the development of the theory of x-ray technique and its practical application in radiography. Prerequisite: RAD 110. 3 lecture hours per week. 3 credit hours.

RADM 212 RADIOGRAPHIC PHYSICS

This course will provide the student with the knowledge of basic physics as it relates to ionizing radiation and the principles of electromagnetism. The student will be provided with the knowledge on calculating voltage, current, and the power and transformer law formulas. The course also provides the student with knowledge of the construction of the x-ray tube and the necessary tests to ensure equipment and patient protection. Prerequisites: MAT 119, RAD 110, RAD 211. Corequisites: PHY 125. 3 lecture hours per week. 3 credit hours.

RADM 213 RADIOGRAPHIC EQUIPMENT

Course content will assist the student in the development of a knowledge base in radiographic, fluoroscopic, mobile and tomographic equipment requirements and design. Quality control will also be discussed. Prerequisites: RAD 212, RAD 110, RAD 211. 3 lecture hours per week. 3 credit hours.

RADM 223 RADIOGRAPHIC PROCEDURES IV

This course is a continuation of the concepts, techniques, procedures and critical thinking skills learned in previous radiographic procedures courses. Students will investigate the anatomy, positioning and procedures related to the mouth, salivary glands, anterior neck, biliary and digestive systems. They will be introduced to the contrast agents needed to investigate these systems and will be introduced to the concept of fluoroscopy as it applies to the investigation of these systems. Clinical education, based upon Clinical Competency Evaluation, parallels the level of Radiologic procedures, techniques, and principles. Prerequisite: RAD 121, BIO 106. 3 lecture hours per week. 3 credit hours.

RADM 224 RADIOLOGIC PROCEDURES V

This course is a continuation of the concepts, techniques, procedures and critical thinking skills learned in previous radiographic procedures courses. Students will be given an overview of other imaging modalities including: nuclear medicine, Radiation therapy, etc. Additionally they will study the cardiovascular and lymphatic systems, long bone measurement, foreign body localization, female radiography, pediatric radiography, geriatric radiography and trauma radiography. Clinical education, based on clinical competency evaluation, parallels the level of radiographic procedures. Prerequisite: RAD 223. 3 lecture hours per week. 3 credit hours.

**RNT 101 MEDICAL TERMINOLOGY**

This online course provides the student with a comprehensive study of medical terminology as it pertains to medical imaging. 1 credit hour.

RNT 102 HEALTH CARE TODAY

This online course is a survey of the current health care delivery system as it pertains to medical imaging and therapeutic sciences. Prerequisites: RNT 101, RNT 103, RAD 120. Corequisites: RAD 121, RAD 110. 2 credit hours.

RNT 103 INTRODUCTION TO MEDICAL IMAGING

This course includes a survey of general principles, techniques and procedures in patient care, ethics and medico-legal. The basics of radiation protection will include comprehensive instruction on the usage of ionizing radiation, the effects and maximum permissible doses for the radiation worker and the public and the proficient and accurate application of all methods of radiation protection. Prerequisites: RNT 101, ENG 101, MAT 119. Corequisite: RAD 120. 3 lecture hours per week. 4 credit hours.



SOC 101 PRINCIPLES OF SOCIOLOGY

Introduction to foundations of the scientific study of human social life, to theories and methods of sociology, and to such basic concepts as culture, society, social organization, social stratification, and social change. Prerequisite: ENG 088, ENG 098, if required, or permission of instructor. 3 lecture hours per week. 3 credit hours.

SOC 102 SOCIAL PROBLEMS

Analysis of basic social problems, their causes and effects on society at large, deviant behavior and social disorganization as exemplified by mental disorders, crime, drug abuse, sexual deviance, and suicide. Policies to deal with social problems are discussed. Prerequisite: SOC 101. 3 lecture hours per week. 3 credit hours.

SOC 206 MINORITIES IN AMERICAN LIFE

A sociological investigation of the history and present status of minority-majority relations in American society, focusing upon ethnic, racial, and religious minorities. Special attention is given to such issues as the origin of prejudice and discrimination and the tensions and conflicts inherent in inter-group relations. Possible resolutions are discussed. Prerequisite: SOC 101. 3 lecture hours per week. 3 credit hours.

SOC 215 FIELD WORK IN SOCIOLOGY

With permission of the department, any student who has successfully completed either PSY 101 or SOC 101, and is enrolled in a psychology, sociology, or education course, or students with exceptional qualifications may elect to engage in field work. The student must attend periodic seminars and/or prepare reports or other projects as required by the department staff. Credit will be based on a minimum of 30 hours in an approved institution for each hour of college credit per semester. This course may be repeated once. 1-3 credits per semester.

SOC 219 WOMEN AND WORK

This interdisciplinary course focuses on women and work. It seeks to understand how gender, racial/ethnic, and class relations shape women's work and perpetuate gender inequalities. This course applies the major sociological frameworks to the development of analytical skills that will help students think critically about women's work in the past, the present, and the future. Prerequisite: SOC 101. 3 lecture hours per week. 3 credit hours.

SOC 270 TOPICS IN SOCIOLOGY

Studies of selected events, issues, or topics in sociology chosen on the basis of timely concerns, community interests, student requests, etc. These courses are of a time or specialized nature and can best be offered not on a regularly scheduled basis, but rather periodically. Individual topics will be announced prior to registration; one, two, or three credits will be offered depending on hours and course format.

SOC 273 MARRIAGE AND FAMILY

This course will use sociological perspectives to examine the diversity of families and explore the changing marriage patterns in contemporary society. The goal of the course is to help students develop a sound base for successful marriage and healthy family. Prerequisite: SOC 101. 3 lecture hours per week. 3 credit hours.



SPA 101 BEGINNING SPANISH I

Development of the fundamental skills of understanding, speaking, reading, and writing. Listening practice is available. Not open to native Spanish speakers. Prerequisite: ENG 088. 3 lecture hours per week. 3 credit hours.

SPA 102 BEGINNING SPANISH II

A continuation of SPA 101 or 2 years high school with A/B grade; not open to native Spanish speakers. 3 lecture hours per week. 3 credit hours.



SPA 105 CONVERSATIONAL SPANISH I

Development of ability to communicate orally in Spanish. The course offers specialized vocabulary for various interest groups such as law enforcement, personnel, business, and health services. Students who wish to take SPA 105 must have completed two years of high school Spanish or SPA 102, or must have the permission of the instructor. Fulfills one semester of the foreign language requirement. Not open to native Spanish speakers. Prerequisite: ENG 088. 3 lecture hours per week. 3 credit hours.

SPA 106 CONVERSATIONAL SPANISH II

A continuation of Spanish 105. Not open to native Spanish speakers. 3 lecture hours per week. 3 credit hours.

SPA 109 SPANISH GRAMMAR AND COMPOSITION FOR HISPANICS

Study of peculiar grammatical and syntactical problems that confront native Spanish speakers. Topics include spelling, accentuation, theme writing. Those who take this course are normally required to complete the language requirement (if any) by taking SPA 121 course or higher. This course fulfills one semester of the foreign language requirement or can be taken for elective credit. 3 lecture hours per week. 3 credit hours.

SPA 111 INTERMEDIATE SPANISH I

Review of fundamental skills of understanding, speaking, reading, and writing. Not generally open to native Spanish speakers. Prerequisite: SPA 101, SPA 102 or 3 years high school Spanish. 3 lecture hours per week. 3 credit hours.

SPA 112 INTERMEDIATE SPANISH II

A continuation of SPA 111 or 3 years of high school Spanish; not generally open to native Spanish speakers. 3 lecture hours per week. 3 credit hours.

SPA 115 SPAIN: ITS CULTURE AND ITS PEOPLE (FOREIGN STUDY)

A comprehensive survey of Spanish culture and civilization including geographical, historical, social, and economic factors. This course is offered in conjunction with a trip to Spain and fulfills one semester of the Spanish Modern Language requirement if taken for credit. Offered in English, as a free elective if demand warrants. 3 credit hours.

SPA 116 CIVILIZATION OF LATIN AMERICAN COUNTRIES (FOREIGN STUDY)

An introduction to Hispanic life and civilization with an emphasis on the Aztec, Mayan, and Inca cultures. Especially appropriate for students planning on entering the area of Latin American Studies. This course is offered in conjunction with a trip to Latin America and fulfills one semester of the Spanish Modern Language requirement if taken for credit. Offered in English as a free elective if demand warrants. 3 credit hours.

SPA 121 ADVANCED SPANISH I

Further development of skills in reading, composition and conversation. Prerequisite: SPA 111-112, or its equivalent. 3 lecture hours per week. 3 credit hours.

SPA 122 ADVANCED SPANISH II

A continuation of SPA 121. Prerequisite: SPA 121. 3 lecture hours per week. 3 credit hours.



UCC 101 FIRST YEAR SEMINAR

This course is designed to help students adjust to college by giving them the information, support and strategies they need to feel secure in their college classes. It will help students clarify their goals, become familiar with the academic environment, and sharpen their ability to learn and think critically. Prerequisite: ENG 087. 2 lecture hours per week. 2 credit hours.



UDA 232 DENTAL SCIENCE

A series of lectures designed to familiarize the students with the basic pharmacological agents utilized to provide anesthesia, promote healing and medicate patients. Information concerning the basic principles of oral pathology is presented. Consideration is given to the relationship between general pathology and oral diseases with emphasis on abnormal conditions of the oral cavity. 30 lecture hours per semester. 2 credit hours.

UDA 270 CLINICAL ASSISTING

Clinical application of the principles and techniques presented during Dental Specialties I, Dental Materials, and Introduction to the Dental Professions. Students are assigned to various clinical rotations in the New Jersey Dental School in order to gain practical experience with dental students, patients and allied dental personnel. 180 clinical hours per semester. 3 credit hours.

UDA 300 INTERNSHIP

Clinical assignment to a private dental office. Experiences provided in all phases of dental care including front office, chair-side, laboratory procedures, radiology and patient education and expanded functions. 120 clinical hours per semester. 1 credit hour.



UDC 111 DENTAL HEAD AND NECK ANATOMY

This course is a study of the basic structures of the oral cavity, a study of nomenclature, structure and morphology of the teeth and function of the teeth. Demonstrations and lecture sessions are designed to emphasize the normal and abnormal clinical appearance of the anatomy of the teeth and highlight the relationship of the teeth to adjacent teeth, opposing teeth, and approximating tissues. The course also provides students with a knowledge of the structure and function of the gross structures of the head and neck. Discussions are included to emphasize important anatomical concepts. 45 lecture hours per semester. 3 credit hours.

UDC 119 DENTAL HEALTH EDUCATION

This course is designed to prepare the dental hygiene student to provide patient education to individuals and groups. The course takes the student through a step by step process regarding the development, implementation, and evaluation of dental health education programs. Students complete an individualized patient education project. 15 lecture hours per semester. 1 credit hour.

UDC 120 INTRODUCTION TO CLINICAL DENTAL HYGIENE

Lecture, demonstration, and clinical practice in the basic procedures of the dental hygiene appointment and instrumentation. 48 lecture hours and 128 laboratory hours per semester. 4 credit hours.

UDC 121 DENTAL RADIOLOGY

A lecture and laboratory course presenting the principles of radiology and their clinical application. Lecture topics include x-ray production, processing intra and extra-oral techniques, radiographic interpretation and radiation biology and safety. Laboratory experiences include manikins simulation as well as clinical patients. 30 lecture hours and 45 laboratory hours per semester. 3 credit hours.

UDC 123 INTRODUCTION TO THE DENTAL PROFESSIONS

This course is designed to introduce the student to the profession of dentistry and allied dental education. Current issues relevant to the practice of dentistry and concepts of general and specialty practice are addressed. 45 lecture hours and 30 laboratory hours per semester. 4 credit hours.

UDC 124 MEDICAL EMERGENCIES IN THE DENTAL OFFICE

A lecture/laboratory course to prepare the student for a specific role in the management of medical emergencies. Students are able to recognize emergency situations and take appropriate steps in treating them with a team approach. 15 lecture hours and 15 laboratory hours per semester. 1 credit hour.

UDC 125 DENTAL MATERIALS

Instruction and demonstration of materials commonly utilized in dentistry. Detailed information regarding physical characteristics, properties, and manipulation of materials is included. 30 lecture hours and 45 laboratory hours per semester. 3 credit hours.

UDC 126 DENTAL SPECIALTIES I

Students are introduced to all expanded functions delegable according to the New Jersey Dental Practice Act. This laboratory course is a prerequisite to clinical dental specialty rotations at the New Jersey Dental School. 15 lecture hours and 15 laboratory hours per semester. 1 credit hour.

UDC 232 DENTAL SCIENCE

A series of lectures designed to familiarize the students with the basic pharmacological agents utilized to provide anesthesia, promote healing and medicate patients. Information concerning the basic principles of oral pathology is presented. Consideration is given to the relationship between general pathology and oral diseases with emphasis on abnormal conditions or the oral cavity. 30 lecture hours per semester. 2 credit hours.

UDC 246 PRACTICE MANAGEMENT

Instruction and demonstration of dental practice management procedures. Topics include appointment contract, telephone techniques, record keeping, insurance forms, correspondence, inventory contract, computerized dental systems, and related dental office procedures. Principles of management and employee relations are emphasized. 15 lecture hours per semester. 1 credit hour.

UDC 270 CLINICAL ASSISTING

Clinical application of the principles and techniques presented during Dental Specialties I, Dental Materials, and Introduction to the Dental Professions. Students are assigned to various clinical rotations in the New Jersey Dental School in order to gain practical experience with dental students, patients and allied dental personnel. 180 clinical hours per semester. 3 credit hours.

**UDH 100 INTRODUCTION TO CLINICAL DENTAL HYGIENE**

Lecture, demonstration, and clinical practice in the basic procedures of the dental hygiene appointment and instrumentation. 48 lecture hours and 128 laboratory hours per semester. 4 credit hours.

UDH 231 CLINICAL DENTAL HYGIENE I

Introduction and demonstration in advanced techniques of the dental hygiene appointment including oral physiotherapy, fluoride, basics of treatment planning and treatment planning case studies, behavior modification strategies, advanced instrumentation, hypersensitivity and pulp testing, adult and pediatric preventive counseling, and oral cytology. 45 lecture hours per semester. 3 credit hours.

UDH 240 NUTRITION

Instruction and demonstration in nutrition and its role in human health and disease, with emphasis on the fundamentals of interviewing, counseling, and the application of nutritional data for the dental patient. 30 lecture hours per semester. 2 credit hours.

UDH 241 CLINICAL SERVICES I

Clinical practice in the performance of oral prophylaxis and the exposure and processing of radiographs and topics related to dental hygiene services. 15 lecture hours and 180 clinical hours per semester. 3 credit hours.

UDH 280 ORAL EMBRYOLOGY AND HISTOLOGY

Instruction and demonstration in the normal microscopic structures of the oral tissues, growth and development of the face and oral cavity and the microscopic study of inflammation and repair. A detailed study of the development of the deciduous and permanent dentition is presented along with the more common developmental disturbances and anomalies that sometimes occur during the complex pattern of growth and development. Prerequisites: Dental Anatomy, Head and Neck Anatomy, and Anatomy and Physiology. 32 lecture hours per semester. 2 credit hours.

UDH 300 ORAL PATHOLOGY

The study of abnormalities in morphology and function, including any deviation from normal. The course begins with cellular alterations and response. The majority of classroom instruction is devoted to oral pathology, with emphasis placed on those lesions most frequently encountered. For each lesion discussed, the etiology, pathogenesis, clinical and microscopic signs and symptoms, treatment, follow-up, and prognosis are presented. Limited discussion is devoted to general pathology as it relates to oral lesions and manifestations. Prerequisites: Oral Histology and Embryology, Nutrition, Anatomy, Physiology and Microbiology. 30 lecture hours per semester. 2 credit hours.

UDH 310 DENTAL HEALTH EDUCATION/COMMUNITY DENTAL HEALTH

Classroom instruction in the study of the principles of and practices for delivering health care to the public. The course examines educational philosophies and methods, educational philosophies, educational psychology, the history of public health, tools of public health, dental health programs and dental care delivery systems. Practice teaching in schools and community centers and field experience in dental health program design through work in community agencies are required. 15 practice hours and 30 lecture hours per semester. 2 credit hours.

UDH 320 PHARMACOLOGY AND ORAL MEDICINE

Instruction in the principles of pharmacology, including the characteristics, use, actions and precautions of drugs and preparations used to protect, control, and treat systemic and oral disease. 15 lecture hours per semester. 1 credit hour.

UDH 321 PERIODONTOLOGY I

A correlation of the basic concepts of the anatomy and pathology of the periodontium and the etiology and treatment of periodontal disease. The relationships of the histopathologic changes of the supporting structures of the teeth to the clinical situation are stressed. Prerequisites: Oral Histology and Embryology, Anatomy and Physiology, and Microbiology. 30 lecture hours per semester. 2 credit hours.

UDH 332 CLINICAL DENTAL HYGIENE II

Classroom instruction in the care of special population groups including care for the pediatric patient, the pregnant patient, the geriatric patient and the handicapped or disabled patient. Prerequisite: Clinical Dental Hygiene I. 30 lecture hours per semester. 2 credit hours.

UDH 342 CLINICAL SERVICES II

Practice in the performance of all phases of total preventive oral health service including oral examination, nutritional counseling, personalized patient education, and fluoride treatments. Prerequisites: Clinical Services I and Radiology. 15 lecture and 180 clinical hours per semester. 3 credit hours.

UDH 352 DENTAL SPECIALTIES II

This course provides students with clinical rotations throughout the dental specialty areas offered by the New Jersey Dental School. Students function as New Jersey expanded duties dental hygienists and become clinically proficient in all expanded duties listed in the New Jersey Dental Auxiliary Practice Act. 45 clinical hours per semester. 1 credit hour.

UDH 411 CAPSTONE SEMINAR

The Capstone Seminar is at the conclusion of a student's program of study and caps prior course work. The course is an opportunity for students to synthesize what they have learned in the Dental Hygiene Major by applying research methods and oral pathological conditions into a case study for publication and presentation. The time will be used to share research experiences, discuss three units of oral pathology, apply biostatistics to a research project and to present a case study to peers. 30 lecture hours per semester. 2 credit hours.

UDH 422 PERIODONTOLOGY II

Continuation course of Periodontology I. The course provides students with opportunities to review trends and controversies in the field of periodontology. Special attention is given to assessing periodontal disease; new diagnostic tools; dental hygiene diagnosis, prognosis and treatment plan; ultrasonics; oral irrigation, scaling and root planning; current concepts regarding curettage; root topography and periodontal therapy; instrument sharpening; antimicrobials and antibiotics; fluorides; nutrition; surgery; suture placement and removal; and case documentation and evaluation. 30 lecture hours per semester. 2 credit hours.

UDH 443 CLINICAL SERVICES III

Clinical experiences allowing exposure to diverse patient pools, clinical setting, and equipment. Prerequisites: Clinical Services I, Clinical Services II, Periodontology I. 15 lecture hours and 180 clinical hours per semester. 3 credit hours.

UDH 453 PAIN CONTROL

This course provides the students with the latest methods in pain management in a dental setting. Students are exposed to anesthetic agents their indications, and contraindications. Students learn principles of pain control through associated laboratory activities. 15 lecture hours and 15 laboratory hours per semester. 1 credit hour.





UPR 101 INTRODUCTION TO THE PRINCIPLES OF PSYCHOSOCIAL REHABILITATION

Enables students to identify the methods by which individuals with severe mental illness are helped in psychosocial rehabilitation and treatment settings. Classroom lectures and seminars provide students with opportunities to explore concepts unique to psychosocial rehabilitation, including history, philosophy and values of psychosocial rehabilitation. 3 lecture hours per week. 3 credit hours.

UPR 1204 CLINICAL PRINCIPLES IN PSYCHOSOCIAL REHABILITATION AND TREATMENT

Introduces students to an understanding of psychopathology as it is addressed through psychosocial rehabilitation intervention efforts. Students will be able to define and differentiate between mental health and mental illness. The use of common psychotropic drugs and their side effects will also be covered. Current psychiatric practices will be discussed. Prerequisite: UPR 101. 3 lecture hours per week. 3 credit hours. Students register through UMDNJ for this course.



URC 200 CORE CONCEPTS IN RESPIRATORY CARE

An orientation to general patient assessment and examination, to include: infection control, patient safety, interviewing and communication, record keeping, and clinical laboratory studies. Didactic and practical demonstrations will provide the basis for proficiencies practices in the laboratory and then performed during clinical practice. Corequisites: URC 210 and URC 218. Summer Session. 8 lecture hours. 24 laboratory hours. 1 credit hour.

URC 210 FUNDAMENTALS OF RESPIRATORY CARE

An introduction to the basic therapeutic modalities used in respiratory care, to include: medical gas delivery, humidity & aerosol therapy, respiratory pharmacology, bronchial hygiene therapy, lung expansion therapy and emergency life support. Lectures, lab demonstrations and experimentation are integrated with clinical practice. Corequisites: URC 200 and URC 218. 5 lecture hours per week and 5 laboratory hours per week. 4 credit hours.

URC 218 CLINICAL PRACTICE I

An orientation to the hospital environment and to the basic respiratory care procedures covered in both Core Concepts in Respiratory Care and Fundamentals of Respiratory Care. Clinical instruction and supervised practice are provided in the areas of basic patient assessment, infection control, vital signs, charting, oxygen administration, aerosol/humidity therapy, hyperinflation therapy and bronchial hygiene. Corequisites: URC 210 and URC 200. 90 clinical hours per semester. 1 credit hour.

URC 220 CARDIOPULMONARY PHARMACOLOGY

An overview of drugs affecting the cardiopulmonary system, including bronchodilators, steroids, antibiotics, skeletal muscle relaxants, central nervous system depressants, respiratory stimulants, diuretics and cardiovascular agents. Prerequisites: to enroll in URC 222 you must have completed the first semester in the UMDNJ-SHRP Respiratory Care Program or have equivalent educational preparation. 2 lecture hours per week. 2 credit hours.

URC 223 APPLIED CARDIOPULMONARY PATHOPHYSIOLOGY I

A study of the anatomy and physiology of the cardiopulmonary system as it relates to respiratory care. Includes basic anatomy of the pulmonary and cardiac system, physiology of circulation, gas exchange, control of respiration and an overview of the pathophysiology and treatment of common disorders of the cardiopulmonary system. Prerequisites: BIO 105 and BIO 106. Summer Session. 30 lecture hours. 2 credit hours.

URC 224 APPLIED CARDIOPULMONARY PATHOPHYSIOLOGY II

A case-based study of the pathophysiology of common disorders affecting the cardiopulmonary system, that emphasizes diagnosis and treatment in the clinical setting. Prerequisites: BIO 105, BIO 106 and URC 223. 30 lecture hours per semester. 2 credit hours.

URC 225 PRINCIPLES OF VENTILATORY SUPPORT

Lectures, demonstrations, and lab exercises covering the physiologic principles and clinical procedures used to provide both invasive and non invasive artificial ventilatory support to adults, children and infants. Topics include: respiratory failure, airway management, physics and physiology of ventilatory support, initiating and adjusting ventilatory support, managing and monitoring the patient in respiratory failure, and discontinuing ventilatory support. Prerequisites: URC 200, URC 210 and RSTN 2231. Corequisites: URC 223 and URC 228. 30 lecture hours and 45 laboratory hours per semester. 4 credit hours.

URC 228 CLINICAL PRACTICE II

This clinical is designed to build on the skills which the student has developed during Clinical Practice I. The student will develop proficiency in skills relating to Fundamentals of Respiratory Care, Core Concepts procedures and Critical Care Rotation. Prerequisites: URC 210, URC 200 and URC 218. Corequisites: URC 225 and URC 223. 180 laboratory hours per semester. 2 credit hours.

URC 233 CARDIOPULMONARY EVALUATION

A lecture and laboratory course on invasive and noninvasive diagnostic and monitoring procedures including roentgenography, electrocardiography, pulmonary function testing, hemodynamic monitoring, arterial blood gas analysis, patient interviewing and physical assessment. Prerequisites: URC 200, URC 210 and URC 223. Corequisites: RSTN 2250 and RSTN 2289. 15 lecture hours and 45 laboratory hours per semester. 2 credit hours.

URC 234 PATIENT MANAGEMENT CRITICAL CARE

An in-depth study of the clinical management of the cardiopulmonary patient in the critical care setting, emphasizing specialized respiratory assessment, advanced ventilatory management techniques, basic interpretation of the chest film, hemodynamic monitoring, electrocardiograph interpretation, and the effects of cardiopulmonary disorders on the other major body systems. 3 credit hours.

URC 235 PEDIATRIC/NEONATAL RESPIRATORY CARE

The course provides an in-depth analysis of pediatric and neonatal disorders requiring respiratory care intervention, including assessment techniques and applicable therapies and protocols. Prerequisites: URC 223, URC 224, URC 225 and URC 228. Corequisite: URC 238. 30 lecture hours and 45 laboratory hours per semester. 3 credit hours.

URC 237 LONG TERM, HOME AND REHABILITATIVE CARE

An analysis of the goals and methods underlying provision of respiratory care in non-acute settings. Includes standards and regulations governing non-acute respiratory care, team planning, patient selection, program design and provision and documentation of various clinical services in the home and in long-term care and rehabilitation facilities. Includes cost, reimbursement and ethical issues. Prerequisites: Completion of the first two semesters of the Associates of Science degree in Respiratory Care at UMDNJ-SHRP or an equivalent educational preparation. Corequisite: URC 238 within the Associates of Science degree in Respiratory Care program at UMDNJ-SHRP. 2 lecture per week. 2 credit hours.



URC 238 CLINICAL PRACTICE III

The course provides supervised experience in both acute care and alternative settings, with an emphasis on developing the skills necessary to function independently. Experiences include cardiopulmonary diagnostics, critical care of the adult, infant and child; and long-term, home and rehabilitative care. Prerequisite: URC 228. 270 clinical hours. 3 credit hours.

**URS 101 INTRODUCTION TO URBAN STUDIES**

The course examines the variety of issues faced by the nation's cities. It explores the historical development of the city, the city-suburban relationship, regional patterns, and recent developments which impact on the cities, as well as those institutions and processes which particularly affect the nation's cities. Prerequisites: ENG 088, ENG 098. 3 lecture hours per week. 3 credit hours.

URS 201 SEMINAR AND FIELD WORK IN URBAN AFFAIRS

The core requirement of this course is that the student undertake a first-hand study and analysis of an urban (or suburban) problem, applying the theory and knowledge gleaned from preceding courses in this discipline. Selection of the problem and establishment of the necessary community relationships are to be made by the student with the guidance of the instructor. Format for the course is tutorial, concerning the student's independent research and seminar, his periodic reports and sharing of experiences with the members of the class. The expertise of all departments of the College is to be made available to the student as needed. Prerequisites: ENG 089, ENG 099, URS 101 or approval of instructor. 3 class hours per week and 45 hours of field work during the semester. 4 credit hours.

**TRN 101 INTRODUCTION TO TRANSLATING**

A general, introductory course that covers the theoretical and practical aspects of translating written text from one written language into another. Students learn what skills and knowledge are needed to become professional translators. They perform translations on a variety of documents. The emphasis is on translation into written English from any other written language although practice and feedback are given in the opposite direction as well. Prerequisites: Completion of all developmental English and ESL requirements of the College. This is an Online course. 3 lecture hours per week. 3 credit hours.

**WMS 101 INTRODUCTION TO WOMEN'S STUDIES**

Introduction to Women's Studies is a course for students who plan to major in Women's Studies, or for those who want a general overview of the academic study of women's issues. Students will learn about women's roles and lives in different times and cultures, the history of women's movements, and terminology and controversial issues concerning research in the field of women's studies. Prerequisites: ENG 088, ENG 098, ENG 099, if required. 3 lecture hours per week. 3 credit hours.



ABOUT UNION COUNTY COLLEGE

Union County College is a public comprehensive community college and is a member of New Jersey's system of nineteen county colleges. It is the oldest 2-year college in the State of New Jersey.



The College operates major campuses in Cranford, Elizabeth, Plainfield and Scotch Plains. It enrolls approximately 10,000 full and part-time credit students and over 26,000 non-credit and continuing education students. The College is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools.

Many programs lead to the Associate in Arts and the Associate in Science degrees. Students who satisfactorily complete these two-year programs may transfer to four-year institutions for their junior and senior years. Many programs lead to the Associate in Applied Science degree, the Certificate or the Diploma after which students may choose to conclude their formal education and seek employment in their fields of study immediately after graduation.

Union County College confers the Associate in Science degree upon graduates of Trinitas School of Nursing, Elizabeth, N.J., and Muhlenberg Regional Medical Center Schools of Nursing, Medical Imaging and Therapeutic Sciences, Plainfield, N.J.

HISTORY

Union County College (previously known as Union County Junior College, Union Junior College and Union College) traces its founding to the opening of Union County Junior College on October 16, 1933 in Abraham Clark High School, Roselle, N.J., with an enrollment of 243 evening students. It was the first of six Emergency Relief Administration projects in New Jersey. When federal aid was terminated in 1936, the College became an independent, non-profit institution governed by a Board of Trustees composed of educational, professional, and business leaders in the community. A day session was added in 1942 and the College moved into its own building in Cranford a year later. Following a Silver Anniversary Development Fund Campaign, the College in 1959 moved to its 48-acre Campus in Cranford.

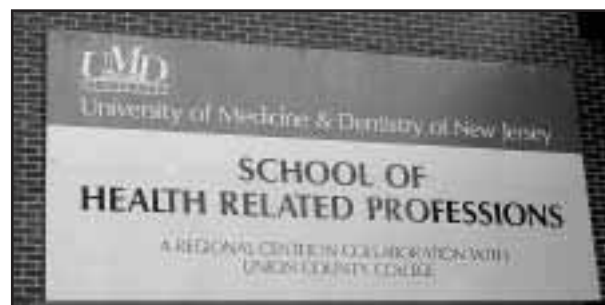
Union County College was established on August 17, 1982, through a consolidation of Union College, Cranford, N.J., a two-year, independently-governed college, and Union County Technical Institute, Scotch Plains, N.J., a publicly-governed institution. From 1969 to 1982, Union College and Union County Technical Institute had provided college-level programs for Union County in lieu of a county college under contracts with the Union County Coordinating Agency for Higher Education. In 1970, Union College opened two urban campuses in Elizabeth and Plainfield, Union County's major urban centers. In 1971, Union College entered into contracts with Elizabeth General Medical Center (now Trinitas Hospital) in Elizabeth and Muhlenberg Regional Medical Center in Plainfield to jointly conduct a Cooperative Program in Professional Nursing. In 1975 the College opened an Institute for Intensive English in Elizabeth, providing intensive English instruction for speakers of other languages. The Institute is now the largest provider of ESL instruction in the State of New Jersey.



Major branch campuses were opened in newly-renovated facilities in 1992 in Elizabeth, N.J., utilizing the eight-story headquarters of the Elizabethtown Gas Company, and in Plainfield, N.J., utilizing the three-level Courier-News Building. In 1999, the Plainfield campus was expanded to include an annex that houses instructional space for Emergency Medical Technician/ Paramedic training and a state-of-the-art laboratory for American Sign Language and Deaf Studies.

The Cranford Campus was enhanced in 1991 with the opening of The Commons, a student life building; in 1994 with the development of the Center for Visual Arts and Communications in the lower level of the MacKay Library; and in 1995 with an addition to the Campus Center, providing a Fitness Center, Executive Education Center and other facilities.

Union County College and the University of Medicine and Dentistry of New Jersey opened the Regional Health Education Center in the Health Technologies Building at the Scotch Plains Campus in 1994 to jointly offer programs in the health professions. In 1999, UMDNJ designated the jointly operated site as its fifth campus in the state.



MISSION AND PHILOSOPHY

Union County College, in cooperation with other agencies, is dedicated to serving the higher educational needs of Union County. The College has an open admissions policy for both transfer and career programs and is dedicated to the fundamental values of public higher education. The oldest two-year, continuously operating, non-profit, degree-granting institution in New Jersey (1933), Union County College provides opportunities for higher education for people of diverse ethnic, racial, cultural, educational and socioeconomic backgrounds in a multi-campus setting. The College has four campuses which are located in Cranford, Elizabeth, Plainfield and Scotch Plains. The Scotch Plains campus is operated in collaboration with the University of Medicine and Dentistry of New Jersey.

The College strives to promote in students a sense of responsibility for their own development and an understanding of their obligations as members of a democratic society. The College fosters in students the desire to learn, the ability to think clearly and express themselves effectively, the habit of analytical and reflective thought, and an awareness of themselves, their heritage, other cultures, and their environment.

THE COLLEGE SEEKS TO PROVIDE:

- the highest quality transfer education through comprehensive curricula and the use of the most current technology, allowing for transfer to four-year colleges and universities;
- the highest quality technical and career-oriented education through selected degree and certificate programs which use the most current technology, preparing students for immediate entry into a career;
- innovative student-centered teaching and support services to foster students' personal and social development;
- continuing and community education programs and courses in varied schedules, at varied locations, and with varied modes of instruction for credit or without;
- developmental studies, particularly in writing, reading and mathematics, to prepare students for college-level programs and courses and to increase their literacy;
- academic advising, career/employment services, transfer services, counseling services, tutoring services, and an array of extra and co-curricular activities;
- customized training and retraining for business and industry;
- workforce education programs for persons displaced from their jobs or unemployed.

GOALS AND OBJECTIVES

GOAL I

Provide a series of relevant general education courses for all students.

OBJECTIVES

- insure that general education courses enable students to develop:
 - critical thinking and problem solving skills
 - effective communication skills
 - values and ethical standards
 - the ability to use modern technology
 - the ability to become self-directed learners
 - an awareness of and concern about the ethical implications of institutional policies and individual practices
 - an expanded awareness of their rights and responsibilities as citizens of a world community
 - the ability to understand, communicate with, respect, and live harmoniously in a diverse society
 - an understanding of themselves - their abilities, interests, and personalities
 - an awareness of the diverse forces that shape their world and themselves in order to keep pace with the changing society



GOAL II

Provide transfer programs and courses for students who want to continue their education at four-year institutions.

OBJECTIVES

- meet the specific needs of transfer students
- ensure the academic standards for transfer are reviewed and maintained through the offering of a range of technical and professional programs
- continue to add to the existing articulation and dual admissions agreements with four-year institutions both within and outside the state
- maintain an open avenue of communication among faculty, counselors, and administrators at the institutions involved

GOAL III

Provide career programs to prepare students to function in a technologically and socially changing world.

OBJECTIVES

- offer a range of technical and professional programs in the business, engineering, and health technology fields
- evaluate and update curricula, programs, and courses in response to workforce needs
- accommodate the diverse needs of students entering the workforce, seeking to advance further in their careers, or retraining for new jobs

GOAL IV

Provide developmental courses for students who need to prepare for college-level credit courses.

OBJECTIVES

- develop necessary oral, reading, writing, and mathematical skills emphasizing process and concepts
- help students develop effective learning strategies
- facilitate the transition from developmental to regular college credit courses
- provide academic advising and placement



GOAL V

Provide professional development programs to ensure excellence in teaching-learning processes.

OBJECTIVES

- develop in-service programs which explore and implement new pedagogy and technology
- provide a wide variety of professional development programs supporting individual, departmental, and college-wide professional development
- provide faculty with access, support, and training in computer-mediated instruction
- train faculty in the development and implementation of distance learning courses

GOAL VI

Provide support services for all students.

OBJECTIVES

- provide orientation for students and their families
- provide academic, career, and personal intervention counseling
- provide activities that promote personal and social growth and development such as multi-cultural activities, wellness programs, and athletics
- explore new ways to assist students in financial need who do not qualify for established programs
- provide job placement services as required

GOAL VII

Provide college services and resources to accommodate a diverse student population.

OBJECTIVES

- provide delivery systems to reach populations, including distance learning courses and non-traditional course offerings
- provide courses in the English language and American culture to students whose first language is not English
- provide scheduling patterns responsive to the needs of working students
- expand articulation with high schools through faculty collaboration, college credit in high school, summer programs, and early identification of potential college candidates
- provide appropriate accommodations and accessibility to students with physical and learning disabilities
- effectively communicate the services of the College throughout the county
- provide peer, paraprofessional and professional tutoring and computer-assisted instruction through the College's Academic Learning Centers

GOAL VIII

Provide opportunities for life-long learning and personal enrichment.

OBJECTIVES

- use community-based physical, financial, and human resources available to complement those within the College
- provide educational, cultural, and recreational activities for the Union County College community
- provide technological education



GOAL IX

Develop workforce development programs through alliances with hospitals, universities, business, industry, and professional and governmental groups to meet the changing workforce requirements.

OBJECTIVES

- provide courses and programs that are responsive to the needs of business, industry, and professional and governmental groups through the Center for Economic and Workforce Development (CEWD)
- provide career assessment and educational opportunities through the Center for Economic and Workforce Development (CEWD) for persons displaced from their jobs, unemployed or underemployed
- actively participate in the economic planning and development of the county
- encourage faculty and staff to take active roles in various local and national community, service, business, and professional organizations
- provide active program advisory committees for technical programs
- collaborate with hospitals, universities, business, and industry in order to provide comprehensive programs
- provide externships and workstudy programs when appropriate
- provide instruction in English as a Second Language (ESL), civics, literacy, and General Education Development (GED) preparation.

GOAL X

Serve as a cultural center for the community and surrounding areas.

OBJECTIVES

- provide an annual series of theatrical programs
- provide an annual series of art exhibitions
- provide a program of intercultural exchange including musical performances, lectures, literary publications and readings

GOAL XI

Enhance teaching and learning through the use of instructional technology.

OBJECTIVES

- incorporate whole class multi-media presentation methodologies into classroom instruction on all campuses
- integrate web-based activities into the college curricula
- provide specialized hardware and software in dedicated laboratories and classrooms to meet curricular needs
- provide the required institutional support and access to students, instructors, and staff to realize the full potential advantages of technology



GOAL XII

Offer distance learning courses and programs.

OBJECTIVES

- provide courses and programs utilizing a variety of media such as telecourses, Campus Web, wireless, and web-based/on-line
- provide faculty support and training for the development and delivery of distance education courses and programs
- provide web-based academic and non-academic student support services for distance learners
- foster collaborations with educational institutions and other organizations to better serve distance education students

GOAL XIII

Provide the Union County College community with state-of-the-art information resources and services in facilities designed to foster intellectual, technical, and vocational growth.

OBJECTIVES

- develop library collections sensitive to and reflective of a diverse curricular and student body
- provide access to information in changing and emerging formats
- provide a program of information literacy-across-the-curriculum that teaches students how to access, evaluate and use information in the classroom and throughout their lives
- provide a comfortable library atmosphere and facilities that stimulate the learning process
- develop resources and services to support the needs of remote users
- develop in students an appreciation for the value of the library as an educational and life resource

GOAL XIV

Increase the diversity of the College faculty, staff, and administration.

OBJECTIVES

- assess progress toward meeting these goals on a monthly basis
- achieve the goals contained in the affirmative action plan by the dates indicated

GOAL XV

Provide sufficient resources, both public and private, to implement the preceding goals.

OBJECTIVES

- continue to seek funds from appropriate Federal, State and County agencies
- continue to seek funds from individuals and private sources
- continue to operate in a cost effective manner
- continue to seek funds for scholarship assistance to students and for faculty grants



ACCREDITATION

Union County College is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools, 3624 Market Street, Philadelphia, PA 19104-2680, (267) 284-5000. The Commission on Higher Education is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation. The former Union College was accredited by and admitted to membership in the Association in 1957. Its accreditation was reaffirmed in 1967, 1973, 1982, 1986, 1997, and again in 2002 as Union County College.



Union County College was granted the authority by the State of New Jersey in April 1982, to confer the degree of Associate in Arts, Associate in Science, and Associate in Applied Science and to award the certificate and the diploma. Union College had held the authority to confer the Associate in Arts degree since 1953, and the Associate in Science and Associate in Applied Science degree since 1969.

Union County College is licensed by the State of New Jersey. Union College had been licensed since 1939.

The following programs hold professional accreditation: radiography and radiation therapy (Joint Review Committee on Education in Radiologic Technology, conducted jointly with Muhlenberg Regional Medical Center); physical therapist assistant (American Physical Therapy Association, Commission on Accreditation in Physical Therapy Education); respiratory care (Committee on Accreditation for Respiratory Care, conducted jointly with the University of Medicine and Dentistry of New Jersey (UMDNJ)); professional nursing (National League for Nursing Accrediting Commission, Inc., conducted jointly with Muhlenberg Regional Medical Center and Trinitas Hospital); practical nursing (new program, provisional accreditation through the New Jersey Board of Nursing); dental assisting (Commission on Dental Accreditation of the American Dental Association, conducted jointly with UMDNJ); dental hygiene (Commission on Dental Accreditation of the American Dental Association, conducted jointly with UMDNJ); and nuclear medicine technology (Joint Review Committee on Educational Programs in Nuclear Medicine Technology, conducted jointly with Muhlenberg Regional Medical Center). These organizations are specialized accrediting agencies recognized by the U.S. Secretary of Education and/or the Council for Higher Education Accreditation. The Certificate program in electrology is accredited by the Council on Accreditation of the American Electrology Association.

CAMPUS LOCATIONS

Union County College operates major campuses in Cranford, Elizabeth, Plainfield, and Scotch Plains, N.J.

The College's main offices are on the 48-acre Cranford Campus at 1033 Springfield Avenue, Cranford, N.J., 07016. Cranford is located near major highways, including the Garden State Parkway, Routes 1-9, 22, 27, 28, and 78 and is accessible to a wide area of north central New Jersey. Bus Route 58, serving Elizabeth, Roselle Park and Kenilworth, and Bus Route 66, serving Hillside, Union and Springfield, terminate at the

Cranford Campus. Bus and rail transportation is available to downtown Cranford.

The Elizabeth Campus is located at 12 West Jersey Street, in the eight-story Sidney F. Lessner Building within the city's major business district. Extensive bus and rail service is available within a half block of the Campus.

The Plainfield Campus is located at 232 East Second Street, Plainfield, in a three-story building. Bus and rail transportation is available within two blocks of the Campus.

The College conducts cooperative programs in professional nursing with Trinitas School of Nursing located on UCC's Elizabeth campus and Muhlenberg Regional Medical Center Harold B. and Dorothy A. Snyder Schools on Park Avenue and Randolph Road, Plainfield, N.J.

In addition, the College operates a Regional Health Education Center at its Scotch Plains Campus jointly with the University of Medicine and Dentistry of New Jersey. The 40-acre campus at 1776 Raritan Road, Scotch Plains, N.J. It is accessible via the Garden State Parkway and Route 22.

FACILITIES



CRANFORD CAMPUS

There are eight major buildings on the Cranford Campus at 1033 Springfield Avenue, Cranford: Kenneth Campbell MacKay Library with the Tomasulo Art Gallery, Academic Learning Center, and the Center for Visual Arts and Communication; the Humanities, Science and Nomahegan Buildings with classrooms, lecture halls, seminar rooms, science and computing laboratories, counseling and faculty offices, lounges, cafete-

ria and student and faculty dining rooms; the Campus Center with the Roy W. Smith Theater, gymnasium, Fitness Center, Executive Education Center, other facilities for student activities, and bookstore; The Commons, a student life/student lounge facility, featuring an atrium and multi-level floor providing a variety of lounge and meeting spaces; James R. MacDonald Hall, which contains administrative offices; and the William Miller Sperry Observatory, which houses 24-inch reflector and 10-inch refractor telescopes, a lecture room, optical shop, computer center, and an astronomy library.



ELIZABETH CAMPUS

The entire Elizabeth Campus is housed in the eight-story, 100,000 sq. ft. Sidney F. Lessner Building at 12 West Jersey Street, Elizabeth. It provides classrooms, theater, lecture hall, seminar and conference rooms, allied health, computer and science laboratories, Kellogg Library and Academic Learning Center, faculty and administrative offices, faculty and student lounges, dining room, and bookstore.



PLAINFIELD CAMPUS

The Plainfield Campus is comprised of most of a city block between East Second and East Third Streets and Church Street and Roosevelt Avenue. The three-story, 28,000 sq. ft. building contains classrooms, lecture hall, allied health, computing and science laboratories, seminar and conference rooms, Library and Academic Learning Center, faculty and administrative offices. An adjacent building on the site houses instructional space for Emergency Medical Technician/Paramedic training and a state-of-the-art laboratory for American Sign Language and Deaf Studies, a student lounge, faculty offices, faculty lounge, bookstore, and cafeteria.



SCOTCH PLAINS CAMPUS

The College shares a 40-acre campus in Scotch Plains at 1776 Raritan Road, Scotch Plains with the Union County Vocational-Technical Schools and the John H. Stamler Police Academy. The College and the University of Medicine and Dentistry of New Jersey jointly operate the Regional Health Education Center in the College's 65,000 sq. ft. Health Technologies Building and it has also been designated as the fifth campus of UMDNJ. It provides classrooms, lecture hall, seminar and conference rooms, allied health and science laboratories, library, faculty and administrative offices, dining room and Campus Center.

ADMISSIONS

ADMISSION TO UNION COUNTY COLLEGE IS OPEN TO ALL HIGH SCHOOL GRADUATES, THOSE HOLDING HIGH SCHOOL EQUIVALENCY CERTIFICATES, OR THOSE PERSONS EIGHTEEN YEARS OF AGE OR OLDER.

APPLICATION PROCEDURE

All applicants must complete the application form, which can be obtained from the Office of Admissions at the Cranford, Elizabeth, Plainfield or Scotch Plains Campuses or through our website, www.ucc.edu. Candidates for admission to the Fall Semester are urged to apply before August 1 and candidates applying for the Spring Semester are encouraged to do so prior to January 1. All Nursing and Allied Health program applicants are urged to apply as early as possible, as enrollment is limited and application deadlines may vary. Although it is not possible to interview all applicants, the Admissions Committee may request an applicant to appear for a personal interview. Union County College-University of Medicine and Dentistry of New Jersey joint health professions program application inquiries should be made to the UMDNJ/UCC Regional Health Education Center on the Scotch Plains Campus. Applicants seeking information and counseling may call or come to any campus Admissions Office to speak to a member of the admissions staff. All disabled applicants are urged to seek an interview with the Coordinator of Services for Students with Disabilities, located in the Counseling Services Center, Cranford Campus.

SCHOLASTIC APTITUDE TEST (SAT)

It is recommended that applicants to all degree programs take the Scholastic Aptitude Test (SAT). While this test is not required for degree or certificate candidates, it is strongly recommended for students who plan to transfer to four-year institutions. SAT scores are required in order to qualify for certain scholarships at Union County College and may exempt students from the NJ Basic Skills Test if they meet the minimum score required. (See Placement Test) It is the responsibility of those applicants who plan to take the test to register for the examination and to have scores reported directly to Union County College. For information regarding registration procedure, the candidate should consult his or her guidance counselor, or write directly to the College Entrance Examination Board, Box 592, Princeton, New Jersey 08540. The College's CEEB Code is 2921.



BRIDGE PROGRAM

High school students who are Juniors and Seniors may apply for the Bridge Program to earn college credits, as full-time or part-time students with the permission of their high school counselor and guardian. Union County College requires Bridge students to have a 'B' average. Bridge Program applications are available in the high school guidance offices or the Admission Office on any campus. Basic Skills Testing is required and students must test out of remedials before being eligible for the Bridge Program. Minimum SAT scores will exempt students from the NJ Basic Skills Test. Students will be required to file an application with the fee and follow the College's procedure on placement testing for admission.

DUAL/JOINT ADMISSIONS AGREEMENTS

Union County College students who complete their Associate degrees in designated programs and who fulfill all the necessary criteria of the dual admission program, will be guaranteed admission as juniors to their choice of several undergraduate colleges with which Union County College has agreements. For more detailed information on Dual Admissions and other transfer opportunities see p. 218.

PLACEMENT TESTING

After applying to the College and before enrolling for classes, placement testing is mandatory to evaluate certain academic skills. (Students whose native language is not English must take an English for Speakers of Other Languages test in lieu of the Basic Skills Test.) This service assists the student in the transition from high school to college. A major goal of this testing is the recognition and remedy of weakness in reading, writing and mathematics.

Union County College requires that the following students take the test:

- A) Full-time and part-time freshmen entering Union County College. (Incoming students who present SAT score of at least 500 on the Verbal and 470 in Math will be exempt from the College Placement Test.)
- B) Students who have not already taken the test but who register for a course that would result in the accumulation of 12 or more credits. (Departmental Chairpersons, in special cases where a student is taking only a course in that department, may postpone the date of the College Placement Test until a maximum of eleven credits is reached by the student.)
- C) Full-time and part-time transfer students who have received Union County College transfer credit for the equivalent of one semester of college English (ENG 101) may be required to take the reading part of the College Placement Test unless there is evidence of college level reading proficiency.
- D) All transfer students must demonstrate proficiency in basic skills mathematics

through old approved test scores or satisfactory completion of developmental courses in arithmetic and elementary algebra to receive exemption from the mathematics part of the College Placement Test. Students without mathematics proficiency proof, but with transfer credit for one semester of college English, must take the mathematics part of the College Placement Test. A student who has declared a Union County College program of study which requires the study of mathematics for college credit (for example, Engineering, Business, Biology), must have completed a college-level mathematics course for exemption from the mathematics part of the College Placement Test.

The College may require additional categories of students to be tested. The College will deny registration to students who refuse to take the College Placement Test without an appropriate waiver.

Students whose test results show a need for special course work in reading, writing, and mathematics will be required to enroll in those courses.

Students whose English skills are weak because English is not their native language are required to take English for Speakers of Other Languages training before they can be enrolled in credit or non-credit bearing courses. When testing establishes the need for such training, students must take the prescribed work before they can be enrolled in credit work. The College reserves the right to deny registration to such students if they refuse to follow these requirements. Students who have taken the College Placement Test (Accuplacer™) within the last two years at another New Jersey institution are required to present evidence of their scores if they wish to be exempted from testing. A retest in reading and mathematics only is available for students on a one-time basis. Contact the Academic Testing Office for more information.

BASIC SKILLS POLICIES

1. Full- and part-time students who are required to take the College's institutional credit remedial/developmental or ESL courses must start these courses during their first semester of enrollment and continue in subsequent semesters until finishing the requirement. The part-time person may follow a priority policy where introductory Reading or Language Arts (ENG 087/088/089) is required before Introductory Writing (ENG 098/099) when there are two required English courses. Introductory Mathematics Concepts and/or Introductory Algebra (MAT 011/015-016/022) would be required after Introductory Writing (ENG 098-099) if mandatory courses in Mathematics are part of the multiple remedial/developmental needs of a student.
2. Full- and part-time students who have given their program of study as undecided will change their program to a College program after completing no more than twelve degree credits or have their program changed by the College to Liberal Studies.
3. All students who apply for admissions to one of the affiliated hospital Nursing programs must follow the basic skills policies of the school which they will attend even when they are different from Union County College policies.
4. The "Description of Courses" section of this catalog details prerequisite and corequisite course requirements for students who are required to take the College's institutional credit remedial/developmental or ESL courses. **Department chairpersons may waive specific pre-requisites/co-requisites in special cases.**

IMMUNIZATION REQUIREMENT

The State of New Jersey requires all full-time students born after December 31, 1956 to be immunized against measles, mumps, Rubella and Hepatitis B, or prove that they meet one of the exemption requirements. Students must bring a copy of a certificate from a doctor or medical center showing proof of inoculations.



QUALIFICATIONS FOR ADMISSION

DEGREE PROGRAMS

A student's eligibility for admission to a particular degree program is based on one or more of the following:

1. official high school diploma/G.E.D.
2. previous college record, if applicable. Candidates may apply to Union County College as full-time students (12 or more credit hours per semester) or as part-time students (11 or fewer credit hours per semester) and may attend classes during the day, in the evening or both, as available. Candidates for programs leading to an Associate degree are advised to present 19 units of high school credit distributed as follows:

English	4 units
Lab Science***	2 units
Mathematics*	3 units
History	3 units
Foreign Language**	2 units
Electives****	5 units

* Candidates for the engineering and physical science programs must include elementary and intermediate algebra, plane geometry and trigonometry. Business majors are encouraged to present Algebra I, Geometry and Algebra II.

**Optional for students entering programs other than liberal arts.

***Engineering and physical science students should include physics and chemistry; health technologies students include biology and chemistry.

****Chosen from foreign languages, social studies, science or mathematics. If a student does not have these high school units, non-credit prerequisite courses offered by the College may be required by the selected program of study.

Admissions requirements for health technology students in addition to the general high school units recommended for a degree program are:

1. Applicants will be accepted only if program requirements are met. (No students will be permitted to register for professional courses unless basic skills prerequisites have been completed).
2. All students are urged to have an interview with the program coordinator or designee prior to acceptance into the program.
3. Students admitted into the following programs must meet additional criteria for admission into the professional courses in these programs. Continuous enrollment in these programs is, therefore, not guaranteed. These programs are Practical Nursing, Health Technology, Nursing, and Cooperative Programs with the University of Medicine and Dentistry of New Jersey (UMDNJ).



4. Admission to the Physical Therapist Assistant Program (PTA) is based on a competitive admissions process. Students are required to make a separate application to the PTA Program in the fall semester. All prerequisite course work is to be completed prior to admission to the PTA Program.
5. Admission to joint programs with the University of Medicine and Dentistry of New Jersey (UMDNJ) are competitive and determined by a selection process based on admission prerequisites and grade point average. Students apply to Union County College (UCC) with a Union County College application for admission. All students accepted need to meet immunization requirements of the University of Medicine and Dentistry of New Jersey in addition to Union County College requirements.
6. Students who fail to maintain continuous enrollment from fall to spring and spring to fall semesters are not guaranteed continued standing in any given program.

CERTIFICATE-DIPLOMA PROGRAMS

A student's eligibility for admission to a certificate or diploma program is determined on the basis of:

1. high school diploma/G.E.D.;
2. previous college record and/or work experience, where appropriate. Certificate and diploma candidates in the health technology programs should have a background in biology and chemistry and, if applicable, SAT scores;
3. credits transferred towards a certificate/diploma are no more than half the total program credits.

ABILITY TO BENEFIT

Students who lack a high school diploma or equivalent and are seeking federal student aid support must prove their Ability to Benefit from a postsecondary program of study. To determine the Ability to Benefit, students must take the Computerized Placement Test Accuplacer™ through the Union County College Assessment Center. Scores received in this test must be brought to the Financial Aid Office on the Cranford campus for review.

CLASSIFICATION OF STUDENTS

Matriculated Students - Students who enroll in a specific program of study for degree credit or certificate credit on a full-time or part-time basis are matriculated students. Official high school and college transcripts may be required.

Non-Matriculated Student - Students who are not enrolled in a specific program are non-matriculated. At the time a student applies for matriculation, all academic credentials must be submitted. Matriculation forms are available in the Admissions Offices on all campuses. Credits earned as a non-matriculated student may be applied toward a degree.

To be eligible for financial aid, students must be matriculated.

ENROLLMENT STATUS

Students enrolled for 12 or more credits are considered full-time, 6 to 11 credits half-time and 1 to 5 credits part-time. Verification of enrollment must be requested in writing through the Records Office and are done weekly on all campuses.



CLASS STANDING

Students with fewer than 30 credits are considered in freshman standing; with 30 credits or over, students are considered to be in sophomore standing.

SPECIAL ADMISSION CATEGORIES

Advanced Degrees/College Graduates - A copy of the applicant's official transcript may be required if the student plans to pursue a degree at Union County College.

Those producing evidence of earning post-secondary degrees from accredited institutions will be considered for advanced standing placement or transfer credit evaluation if requested. Applicants holding degrees equivalent to or at advanced levels from those offered at Union will be reviewed under the same criteria. However, they may not matriculate in a related program for which they currently hold an approved degree. Those with a baccalaureate degree must take all core courses in the program of interest for the Associate degree. Those without a baccalaureate degree must satisfy standard policy for transfer students regard-

ing the total number of credits taken at Union to be eligible for the Associate degree.

Senior Citizens - Union County residents 65 years of age or over may attend Union County College on a space-available basis without payment of any tuition charges. They must register on the last day of registration. Senior citizens are required to pay registration and general fees where applicable. Students who register for courses prior to the designated date MAY NOT apply for special tuition allowances. Senior citizens who receive financial aid are not eligible for the tuition waiver.

Veterans - Veterans are encouraged to enroll at Union County College under provisions of the federal laws which entitle veterans to educational benefits. To be certified for V.A. educational assistance, students must be matriculated (officially accepted into a specific program of study) in an eligible degree, certificate or diploma program. Veterans should contact the Office of Admissions located on the Cranford or Elizabeth campuses before registering for classes.

National Guard - Members of the National Guard are eligible to attend on a tuition waiver, once all documentation has been processed. Follow procedures under "veterans" above.

Unemployed Workers - These students may attend Union County College on a space available basis, tuition free (on the last day of registration) with the supporting documentation. All other fees and expenses must be paid by the student. Students who register for courses prior to the designated date MAY NOT apply for special tuition allowances.

Workforce Development - These students are eligible to attend Union County College with supporting documentation, provided they have secured a signed contract.

NATIONAL GUARD, UNEMPLOYED WORKERS AND WORKFORCE STUDENTS MUST APPLY FOR FINANCIAL AID.



COOPERATIVE PROGRAMS

Students interested in the entrance requirements for the Cooperative Program in Professional Nursing should write to Union County College, 1033 Springfield Ave, Cranford, N.J. 07016, for Trinitas School of Nursing and directly to Muhlenberg Regional Medical Center Schools of Nursing, Medical Imaging and Therapeutic Sciences, Park Avenue, Plainfield, N.J. 07061. Those interested in the entrance requirements for the Amplified Program in Radiography should write directly to the School of Radiography, Muhlenberg Regional Medical Center, Park Avenue, Plainfield, N.J. 07061. Union County College and the University of Medicine and Dentistry, N.J. (UMDNJ) offer joint programs on the Scotch Plains campus, Raritan Road, Scotch Plains, N.J... Information on the joint programs with University of Medicine and Dentistry of New Jersey are available from any Union County College/UMDNJ Admissions Office, Scotch Plains Campus.



SEEKING SECOND DEGREES

Students seeking second degrees in the same degree classification (i.e., a second AA, AS, AAS, CT or DP) must seek permission from the Vice President for Academic Affairs prior to pursuance of that second degree. Students seeking a second Associate degree in another degree classification (i.e., student has a AA, wishes AS or AAS) may do so under the following conditions: A minimum of 32 credits in residence or all major course work completed toward the second degree at Union County College, whichever is greater. Request for pursuing a second degree must be made to the Registrar's Office prior to official matriculation into the new degree program. This request may be made at the time of

admission. In any case, with students requesting second degrees, a maximum of 32 credits of transfer work will be allowable for AA, AAS and AS programs. Less may be allowable for certificate and diploma programs. Students who have already received a baccalaureate degree may be granted up to 40 transfer credits into Union County College. (NOTE: Check program requirements for specific transfer credit accepted.) Developmental courses cannot be used as electives. All electives in the second degree must be taken in accordance with the elective listing found in the new degree. Students will not receive transfer credit for courses taken at Union County College.

International Students – These students must obtain an International Student Packet from the Admissions Office on any campus. Housing and Financial Aid are not provided by Union County College.

INTERNATIONAL ADMISSIONS

Applicants from other countries with foreign credentials may apply for admission as full-time matriculated students in a degree program. Applicants must submit all documents required on the International Student Instruction packet which includes notarized copies of official records of past schooling, a completed foreign student application packet along with the College's application for admission. It is required that they be submitted by deadline dates on International Student Packet. In no case will a foreign student be accepted without the following credentials:

1. Application for Admission
2. Application and Registration Fee
3. Official translated secondary school record listing courses taken and examination results (notarized photocopies are acceptable). All credentials must be translated into English by an official translating agency and certified as correct. **SUBMISSION OF FORGED OR ALTERED CREDENTIALS MAY LEAD TO DISQUALIFICATION OR DISMISSAL.**
4. Diplomas, national examinations, university entrance examination results, and all transfer information.
5. Copy of Affidavit of Support indicating the source and ability to pay tuition, fees and living expenses while studying.

(Required only for students requesting an F-1 Visa.) The Statement of Understanding must be signed by the applicant and person(s) who submit the Affidavit of Support on behalf of the applicant. All current tax returns must also be submitted by sponsor of student.

INTERNATIONAL TRANSFER STUDENTS IN ADDITION MUST SUBMIT:

- A. Official record of any college, university or other post-secondary work listing courses taken.
- B. A Foreign Student Advisor's Report must be completed and signed by the designated school official of the school the student is attending or was last authorized to attend. No admission decision will be made until this report has been submitted.
- C. Students who anticipate receiving transfer credit for courses taken at another college or university outside the United States, must have their transcripts evaluated by an official evaluation agency.

Since Union County College is a public-supported institution, financial aid for foreign students is not available. Therefore, we are only able to admit students who do not need financial assistance. Campus housing facilities are not available. An Affidavit of Support must be submitted along with their application for admission and all required fees. The form "I-20" required by the U.S. Immigration Office is requested only for applicants who have submitted all required documentation. All foreign students who are in the United States on student visas are required to pay tuition at the rates established by Union County College.

ADVANCED PLACEMENT

Union County College awards credit to entering students who have achieved a score of 3, 4, or 5 on the Advanced Placement (AP) Examination in course equivalents of the subject matter of the AP examination. Each department will determine the appropriate course or courses in their subject area for which such credit will be given.



TRANSFER CREDIT

A student may transfer credits to Union County College from another accredited institution which he or she has attended. Up to 32 credit hours of advanced standing toward the Associate degree and up to half of the program total credits for certificates and diplomas may be granted for courses which correspond in subject matter to courses offered at Union County College. Students who have previously been awarded a bachelor's degree may receive up to 40 transfer credits toward an unrelated Associate degree program. Students entering Trinitas School of Nursing Cooperative Nursing Programs at Union County College may be granted up to 22 college credits of advanced standing toward the Associate degree. Students entering Muhlenberg Regional Medical Center School of Nursing Cooperative Nursing Programs at Union County College may be granted up to 32 college credits of advanced standing toward the Associates Degree. Nursing school courses completed prior to admission are evaluated by the nursing school to which the student makes application for admission. Graduates of the Union County Police Academy and/or Fire Academy will be granted credit of advanced standing towards an Associate degree after matriculation into the Criminal Justice or Fire Science program at Union County College. In any courses offered for transfer credit, grades not lower than C (or its equivalent) must have been earned. Credits for courses accepted from another institution, institutional credits, or certificate credits will not be considered in computing the cumulative grade point average at Union County College. It is the student's responsibility to supply the College with official transcripts of all previous college work at the institutions attended.

READMISSION WITH GOOD STANDING

A student who has withdrawn from Union County College in good standing and has left for a period of at least one full semester and seeks reinstatement need only complete an application form for readmission. No application fee is required of a student applying for readmission to the College.

Students who withdraw and intend to re-register for the following semester need only to fill out a registration form.

When a student returns to Union County College under the readmission category, the student must adhere to the curriculum requirements in effect at the time of readmission.

ADMISSION AND READMISSION OF DISMISSED STUDENTS

A student may be readmitted to the College only twice after sitting out in accordance with the dismissal action. In special cases this requirement may be waived, but only by the written appeal to and the approval of the Academic Evaluation Committee. Students dismissed from Union County College within a three-year period are placed on continued probation for two semesters upon readmission. Any student from another institution who is on probation or has been dismissed and applies for admission within three years of attendance at the previous institution is placed on continued probation for two semesters. A student on probation must maintain a 2.0 average. This student may not hold office in any College organization.



POST DEGREE TRANSFER OPPORTUNITIES

ALUMNI OF UNION COUNTY COLLEGE, INCLUDING STUDENTS OF ITS PREDECESSOR SCHOOLS (THE FORMER UNION COLLEGE AND UNION COUNTY TECHNICAL INSTITUTE), HAVE TRANSFERRED WITH ADVANCED STANDING TO MORE THAN 500 COLLEGES AND UNIVERSITIES IN THE UNITED STATES.



Today, Union County College has dual admissions and direct transfer/articulation agreements with a growing list of colleges and universities as well as a full-faith-and-credit transfer agreement with New Jersey state colleges. Students planning to transfer to a four-year college or university should see a counselor or program coordinator for specific information on these transfer opportunities.

DUAL ADMISSIONS AGREEMENTS

RUTGERS – THE STATE UNIVERSITY

The Rutgers University Dual Degree Program (DDP) provides New Jersey high school graduates with an opportunity to earn a baccalaureate degree at Rutgers University by first earning an associate's degree at Union County College. Application must be made to Rutgers University. Once admitted, students follow a Recommended Transfer Program (RTP). To determine the equivalency between UCC courses and Rutgers courses visit ARTSYS. Successful completion of an associate's degree at UCC will guarantee admission to Rutgers as a third year student, provided that an overall cumulative grade point average of at least 3.00 has been achieved in the RTP.

Union County College students who enroll in the Dual/Joint Admissions Program with Union County College and Rutgers University should be guaranteed admission as juniors provided they have completed an Associates Degree and fulfilled the necessary criteria. Rutgers undergraduate colleges are:

- Camden College of Arts and Sciences
- College of Engineering
- Cook College
- Douglass College
- Livingston College
- Newark College of Arts and Sciences
- Rutgers College
- University College-Camden
- University College-Newark
- University College-New Brunswick
- School of Business-Camden
- School of Business-New Brunswick
- School of Communication, Information, and Library Studies-- New Brunswick



NEW JERSEY INSTITUTE OF TECHNOLOGY

Union County College students who enroll in the joint admissions program between UCC and NJIT should be guaranteed admission as juniors into a parallel program at NJIT (Management, Architecture, Computer Science, Chemical Engineering, Civil Engineering, Computer Engineering, Electrical Engineering, Engineering Science, Industrial Engineering, Mechanical Engineering, Construction Engineering Technology, Manufacturing Engineering Technology, Mechanical Engineering Technology) provided they have completed an associate degree and fulfill all the necessary criteria of the dual admissions program.

MONTCLAIR STATE UNIVERSITY

Union County College students who enroll in the joint admissions program with UCC and Montclair State University should be guaranteed admissions as juniors provided they have completed an associate degree and fulfill all the necessary criteria of the joint admission program.

NEW JERSEY CITY UNIVERSITY

Union County College students who enroll in the joint admissions program with UCC and New Jersey City University should be guaranteed admissions as juniors provided they have completed an associate degree and fulfill all the necessary criteria of the dual admissions program.

KEAN UNIVERSITY

Union County College students who enroll in the joint admission program with UCC and Kean University should be guaranteed admission as juniors provided they have completed an associate degree and fulfill all the necessary criteria of the joint admissions program.

FAIRLEIGH DICKINSON UNIVERSITY

Union County College students who enroll in the joint admission program with UCC and Fairleigh Dickinson University should be guaranteed admission as juniors provided they have completed an associate degree and fulfill all the necessary criteria of the joint admissions program

TRANSFER/ ARTICULATION AGREEMENTS

A vital part of Union County College's mission is to transfer its graduates with junior-year status to four-year colleges and universities throughout the United States and abroad. Over the years, the College has compiled an enviable record in carrying out this goal, as graduates have transferred to more than 500 colleges and universities throughout the world.

Articulation agreements are designed to facilitate transfer to specific colleges and programs, but our students are not limited to transferring only to these institutions:

- **Bethune-Cookman College**, Daytona Beach, FL
- **Bloomfield College**, Bloomfield, NJ
- **Caldwell College**, Caldwell, NJ
- **California University of Pennsylvania**, Calif., PA
- **Cazenovia College**, Cazenovia, NY
- **Centenary College**, Hackettstown, NJ
- **College of Saint Elizabeth**, Convent Station, NJ
- **College of Mount St. Vincent**, Riverdale, NY
- **Delaware State College**, Dover, DE
- **Delaware Valley College**, Doylestown, PA
- **Dickinson College**, Carlisle, PA
- **Fairleigh Dickinson University**, College at Florham Park, Madison, NJ, Metropolitan Campus, Teaneck, NJ
- **Howard University**, Washington, DC
- **John Jay College of Criminal Justice (CUNY)**, NY, NY
- **Kean University**, Union, NJ
- **Laboratory Institute of Merchandising**, NY, NY
- **Lebanon Valley College**, Annville, PA
- **Manhattan College**, Riverdale, NY
- **Montclair State University**, Upper Montclair, NJ (See information on dual admissions)
- **Mount Aloysius College**, Cresson, PA
- **The National College of Chiropractic**, Lombard, IL
- **New Jersey City University**, Jersey City, NJ (See information on dual admissions)
- **New Jersey Institute of Technology**, Newark, NJ (See information on dual admissions)
- **New York University**, New York, NY
- **Pace University**, New York, NY
- **Polytechnic University**, Brooklyn, NY
- **Raritan Valley Community College**, Somerville, NJ
- **Rochester Institute of Technology**, Rochester, NY
- **Rutgers-The State University**, NJ (See information on dual admissions)
- **Sacred Heart University**, Fairfield, Connecticut
- **School of Visual Arts**, New York, NY
- **Sherman College of Straight Chiropractic**, Spartanburg, SC
- **Springfield College of Human Services**, Wilmington, DE
- **St. Francis College**, Brooklyn Heights, NY
- **St. John's University**, Staten Island, NY
- **St. Leo University**, St. Leo, FL
- **St. Peter's College**, Jersey City, NJ
- **State University of New York at Binghamton**, Binghamton, NY
- **State University of New York, Institute of Technology at Utica/Rome**, Utica/Rome, NY
- **Thomas Edison State College**, Trenton, NJ
- **Tuskegee University**, Tuskegee, AL
- **Union County Vocational Technical Schools**
- **University of Phoenix**, Phoenix, AZ
- **University of Pittsburgh at Bradford**, Bradford, PA
- **University of Vermont**, Burlington, VT
- **Warren County Community College**, Washington, NJ
- **Wesley College**, Dover, DE
- **Western New England College**, Springfield, MA
- **Widener University**, Chester, PA
- **Wilberforce University**, Wilberforce, OH
- **William Paterson University**, Wayne, NJ

* List is current as of December, 2004. Contact UCC for the most current information

TUITION & FEES

Tuition and Fees are subject to change as are the policies connected with them. Students should obtain the most current copy of the tuition and fee schedule from the Office of Student Accounts for ready reference.

OFFICE OF STUDENT ACCOUNTS GUIDELINES

The policy of Union County College is payment upon registration. Therefore all tuition, course fees, and other related costs should be paid at the Office of Student Accounts on the day registration takes place. Payment should be accompanied by the appropriate registration materials or forms supplied by the College for proper identification. Union County College accepts Visa, MasterCard, and Discover cards in addition to cash, checks, and money orders. All checks should include the student's social security number on the face of the check. For credit card payments, where the cardholder is someone other than the student, the student must bring written permission from the cardholder authorizing the student to use the card for payment to Union County College. The College reserves the right to request payment in cash only, when circumstances so warrant.

As part of the registration process, all students are required to stop at the Office of Student Accounts to settle their account. Financial Aid may not cover the entire cost of attending college leaving a balance which will have to be paid by the student. Participants in the Federal Subsidized, Unsubsidized and Plus Stafford Loans should be aware that there is a 3% Origination Fee charged by the bank on all Student Loans. This fee is deducted from the proceeds and should be taken into consideration by the student in order to avoid an outstanding balance.

All accounts with outstanding balances after the first bill due date will be assessed a \$30 monthly late fee until the balance is paid in full. Students who fail to pay their balances will be turned over to a collection agency and will be responsible for the added costs of collection, court costs and legal fees. These costs can add as much 35% to 40% to the amount already owed and will result in the disruption of your credit worthiness when the collection agency reports the account to national credit bureaus.

TUITION FEE PER CREDIT HOUR BASIS

UNION COUNTY RESIDENTS 73.00

A 12-month residency in New Jersey and current residency in Union County is required by students to qualify for the in-county rate. Visa students who live in the County qualify for in-county rates. Visa students who live out of the County may apply for the 1% waiver.

OUT OF COUNTY RESIDENTS 146.00

UNION COUNTY RESIDENTS – SENIOR CITIZENS

A 12-month residency in New Jersey, current residency in Union County and 65 years of age or over is required to qualify for the Senior Citizen rate. For Credit courses, matriculation is required with a minimum of 6 semester credit hours.

(NON-REFUNDABLE PROCESSING FEE.) 15.00

NON-REFUNDABLE GENERAL AND SPECIAL FEES

Application Fee (one time payment)	25.00
Assessment of Prior Learning Fee (per credit hour)	
County Residents	36.50
Out of County Residents	73.00
Athletic/Wellness Fee (per credit hour)	.050
Course Change Fee	30.00
Deferred Payment Plan Fee	25.00
FDU Graduation Fee	75.00
General Fee (per credit hour – Fall and Spring only)	12.95
Graduation Fee	60.00
Hospitalization Fee Required for students with 12 or more credit hours in Fall and Spring semesters. (See section on Hospitalization Fee.)	22.00
I.D. Replacement Fee	5.00
Late Payment Fee	30.00
Late Registration Fee	40.00
Muhlenberg Regional Medical Center Schools of Nursing, Medical Imaging and Therapeutic Sciences should be contacted for the latest fee sheet	
Parking Fee Per Year (September through August)	30.00
Registration Fee International Students	250.00
Replacement Diploma	30.00
Re-Registration Fee	40.00
Return Check Fee	40.00
Summer Registration Fee	30.00
Technology Fee (per credit hour)	7.00
Telecourse Fee Sections 077/078	35.00
Exception HUG 101-077/078	45.00
Transcript Fee	5.00
Trinitas Clinical Fee Per Credit	400.00
Trinitas Computer Lab Fee	100.00
Trinitas Convocation Fee	100.00
Trinitas Library Fee	75.00
Trinitas NCLEX Review/Testing Fee (one-time fee)	300.00

Trinitas Student Health Fee 75.00

UMDNJ Courses

Students should contact UMDNJ for the
latest fee schedule

Unemployed Persons

Registration Fee 20.00

Video Course Rental Deposit

Refundable after tape return or
Applied against outstanding
balance 50.00

The College reserves the right to revise its
charges if circumstances so warrant.

APPLICATION FEE

The one time Application Fee must
accompany the Application-for-Admission
form, which is sent to the Office of
Admissions. The fee is not refundable and
cannot be applied to any other charge.

HOSPITALIZATION FEE

All full time Fall and Spring students will
be assessed a Hospitalization Insurance
Fee. The New Jersey Legislature passed
Public Law 1989, Chapter 1, which
requires all students enrolled full-time in
public colleges to carry health insurance
that provides basic hospitalization cover-
age. The College policy is offered through
T. L. Groseclose Associates at a cost of
\$22 per semester (Fall or Spring). If you
are covered under another policy, and do
not wish to be included in the College
plan, you must submit an Insurance
Waiver form to the Office of Student
Accounts during the first 30 days of the
Fall and Spring semesters. Thereafter, no
Insurance Waivers will be accepted.
Students must complete an Insurance
Waiver for each semester when
Hospitalization coverage is not desired.

Detailed brochures explaining the benefits
covered under the Group Student
Accident and Sickness Insurance Program
can be obtained at the Office of Student
Accounts. Additional information may be
obtained by calling T. L. Groseclose
Associates at (609) 279-1507.

Students withdrawing prior to the start of
class will not be covered under the plan
and will be refunded the premium paid.
Additionally, students withdrawing within
30 days of the start of class will not be
covered under the plan and will be

refunded the premium paid. It is the stu-
dent's responsibility to notify the Office of
Student Accounts in addition to all other
appropriate areas of the College of the
student's withdrawal. (Should there be a
balance due on the student's account, the
refund will be applied against the out-
standing balance.)

PARKING FEE

A Parking Fee will be added automatically
to your semester bill. However, it is
optional. If you do not wish to purchase
a Parking Decal, you must submit a
Parking Decal Waiver form to the Office
of Student Accounts during the first 30
days of the Fall/Spring semesters and dur-
ing the first week of Summer semesters.
Thereafter, no Parking Waivers will be
accepted. Students must complete a
Parking Decal Waiver for each semester
when Parking is not desired.

PENALTY FEES

- **Late Registration Fee** – A \$40 Late
Registration Fee will be assessed to all
students who register on the first day of
the semester and thereafter.
- **Return Check Fee** – A \$40 Return
Check Fee will be assessed to all stu-
dents when the bank returns a check.
Students will be required to pay their
balances in cash once a Returned
Check Fee has been charged to their
account.
- **Late Payment Fee** – A \$30 per month
Late Payment Fee will be assessed to all
students who fail to pay their account
in full by the Deferred Payment due
date. Additionally, students will not be
eligible for future Deferred Payment
Plan participation.
- **Re-registration fee** – A \$40 Re-registra-
tion Fee will be assessed to all students
who re-register after being voided for
non-payment
- **Student Schedule Reinstatement Fee** –
A \$75 Schedule Reinstatement Fee will
be charged to all students who seek to
have their schedules reinstated after the
official college withdrawal date.
Students must provide the appropriate
documentation for re-admittance
required by the Registrar and must pay
all tuition, fees and related costs for the
semester.



REGISTRATION FEE INTERNATIONAL STUDENTS

A fee of \$250 will be assessed to International students seeking to obtain an INS Form I-20 Certificate of Eligibility for Non-Immigrant (F1) Student Status from Union County College. This is a non-refundable registration fee but will be applied toward the first semester tuition upon successfully obtain the INS Form I-20.

TRANSCRIPT FEE

Transcripts cost \$5.00 per copy.

Transcripts and letters of recommendation will not be released and registration for subsequent semesters will not be permitted until all financial obligations to the College have been paid.

BOOK ALLOWANCE

- The Book Allowance Program is offered as an aid to assist students with the cost of textbooks and essential course related supplies. Students should be financially prepared for out of pocket expenditures when their maximum Book Allowance has been reached.
- If your Financial Aid award (exclusive of any loan programs, college work study or federal work study) is greater than the tuition and fee charges for the semester, you may be eligible for a book allowance. You can check with the Office of Student accounts to see if you qualify.
- Book Allowance purchases are charged against the student's financial aid. Purchases over the amount of the book allowance are the responsibility of the student.
- In the event Financial Aid is reduced or cancelled, all book allowance purchases are the responsibility of the student.

CHARGEBACK ASSISTANCE

(OUT-OF-COUNTY STUDENTS)

Students who qualify for county chargebacks have 30 days from the first day of the semester to submit chargeback papers from their county of residence. Upon receipt, students will be charged the in-county rate.

Under provisions of the "Chargeback Assistance Law" (Chapter 179, Public Laws of New Jersey, 1968; N.J.S.A. 18A:64A-23), a person who is a legal resident of a county in New Jersey other than Union County may be eligible if: A) A county college is not operating in the student's county of residence. B) A county college is operating in the student's county of residence, but the person is not accepted for admission for one of the following reasons:

1. The course/curriculum (program) is not offered; or
2. Enrollment in the course/curriculum (program) was filled; or
3. The applicant did not meet the general admissions requirements of the college (disciplinary or academic suspension or academic probation excepted); or
4. The applicant did not meet the admissions requirements of the specific course/curriculum (program). Persons who are accepted for admission to Union County College and who believe they may qualify under the above provision may obtain procedural information by writing or visiting the Admissions Office and asking for Chargeback Application forms.

EMPLOYER TUITION ASSISTANCE PLANS

- Prior to registering for the semester, students should have the specifics of their Employer Tuition Assistance Plan reviewed by the Office of Student Accounts to insure that the plan meets Union County College guidelines. The College cannot accept any Employer Tuition Assistance Plan where payment to the College is contingent upon the student achieving a specific grade or maintaining a specific average. Additionally, the College cannot accept any Employer Tuition Assistance Plan where payment will be delayed until student grades are submitted.

- Students are required to complete and sign a Statement of Responsibility for Financial Obligations at the Office of Student Accounts.
- All balances should be paid in full prior to registering for subsequent semesters.
- Should the employer or other outside agency, organization or scholarship fail to pay in a timely fashion, the student will be responsible for the cost of attending Union County College.
- If the student's bill continues to go unpaid, a hold will be placed on the student's account preventing registration as well as the issuance of transcripts, Letters of Recommendation, and grade reports.
- If the account is sent to collection, the student will be responsible for the principal as well as the cost of collection. The cost of Collection can add as much as 35% to 40% to the amount already owed and will result in the disruption of your credit worthiness when the collection agency reports the delinquent account to national credit bureaus.

SPECIAL TUITION CATEGORIES

VOLUNTEER TUITION WAIVER PROGRAMS (CHAPTER 145)

The Volunteer Tuition Waiver Program requires that the student provide verification of service performed, such as a completed Municipal Certification for Active Members of volunteer Fire Company, First Aid or Rescue Squad. Students will be allowed to register for classes on a space available basis on the last day of the Add/Drop period for the session/semester. Students who register for courses prior to the designated date MAY NOT apply the Volunteer Tuition Waiver towards the cost of such courses.

This program covers the cost of Tuition only and is available for active members of a volunteer Fire Company or Rescue Squad and their dependent children and spouse. Individuals will receive a tuition credit of up to \$600, not to exceed a maximum of \$2,400 over a 4-year period per family.

The student is responsible for the payment of all other costs at time of registration.

National Guard, Senior Citizens, Unemployed Workers - see page 215

REFUND POLICY

- Refunds are made on tuition and course fees only. No other fees are refundable with the exception of the Hospitalization Fee. (Please refer to the Hospitalization Fee section for further information.) Refunds take approximately six weeks to be processed and checks to be drawn.
- Refunds for all semesters will be determined by the date shown on the student's official withdrawal form. A student is not eligible for a refund unless a Counselor is notified of the withdrawal and the proper form is completed.
- "Withdrawn" or "W" grades are not eligible for refunds and students are responsible for payment for these courses.
- Students are financially responsible for all tuition and fee charges incurred despite their non-attendance.

FALL AND SPRING SEMESTER REFUNDS

(regular and late start semesters)

If a student officially withdraws, credit will be issued as follows:

- Withdrawal prior to the first day of the semester will result in a 100% credit of Tuition and Course Fees. Students will remain responsible for all other fees incurred.
- Withdrawal from the first day of the semester through the fifth day of the semester will result in a 50% credit of Tuition and Course Fees. Students will remain responsible for all other fees incurred.
- No refund of Tuition and Course Fees will be available after the fifth day of the semester.
- Balances in excess of charges, including deposits, held at the time of withdrawal will be applied to outstanding charges. Any overpayment of tuition will be refunded. Financial Aid program payments applied to charges are subject to recalculation in accordance with the Federal refund allocation schedule.

WINTER AND SUMMER SEMESTER REFUNDS

- Withdrawal prior to the first day of the semester will result in a 100% credit of Tuition and Course Fees. Students will remain responsible for all other fees incurred.
- Withdrawal from the first day of the semester through the third day of the semester will result in a 50% credit of Tuition and Course Fees. Students will remain responsible for all other fees incurred.
- No refund of Tuition and Course Fees will be available after the third day of the semester.
- Balances in excess of charges, including deposits, held at the time of withdrawal will be applied to outstanding charges. Any overpayment of tuition will be refunded. Financial Aid program payments applied to charges are subject to recalculation in accordance with the Federal refund allocation schedule.

REFUNDS FOR FINANCIAL AID RECIPIENTS

- Federal Regulations require that Federal financial aid recipients be subject to a reduction of their financial aid if they withdraw or stop attending all classes before completing 60 percent of any given semester. For further information refer to the Financial Aid section of the Union County College Catalog.
- All financial aid recipients shall be responsible for the costs incurred for tuition, fees, books and related costs should their financial aid be revised or cancelled.
- Students who fail to pay an outstanding balance resulting from a change in their financial aid will be turned over to a collection agency and will be responsible for the added costs of collection, court costs and legal fees. These costs can add as much 35% to 40% to the amount already owed and will result in the disruption of your credit worthiness when the collection agency reports the account to national credit bureaus.
- Fall semester financial aid awards are intended to cover the regular start, late start and Winter sessions. Spring semester awards are intended to cover the regular start and late start sessions. Summer awards are intended to cover both summer sessions.

OUTSTANDING OBLIGATIONS

Delinquent students are those who fail to return College materials on loan or assignment to them or fail to make payment on parking tickets, library fines, or other College fees and fines. A "Hold" will be placed on the student's account and students will not be allowed to receive transcripts and will not be permitted to register for the next semester until such debts are settled. In the case of those academically eligible to graduate, conferment of the degree will be withheld. The student is liable for the full retail-price replacement of any materials, which cannot be returned because of loss or damage resulting from negligence.

NIGHT DEPOSITORY DROP BOXES

Night Depository Drop Boxes for payments can be used when the Office of Student Accounts is closed or to expedite the payment process. The Drop Boxes are found on all three of our campuses.

- Cranford – Located in MacDonald Hall lobby.
- Elizabeth – Located in the Student Services area room #116
- Plainfield – Located in the hallway outside of the Student Services area.

Instructions for use and all pertinent forms are located in the adjacent racks. Please do not deposit cash. All payments will be processed on the next business day, and receipts will be mailed to students.

COURSE FEES

as of June, 2004
(subject to change)

ACC 021, 212, 290	.25.00
ACC 103, 104, 203, 205, 211	.15.00
ACC 210	.50.00
ADM 101, 103, 104, 116, 119, 121, 122, 123, 131, 132, 204, 213, 214, 220, 250, 290, 293	.25.00
ADM 203	.50.00
ARC 101, 102, 105, 201, 202	.50.00
ARC 205, 206, 210, 214, 215, 216, 217, 224, 225, 295	.25.00
ASL 101, 102, 103, 104, 108, 201, 202, 210	.15.00
AST 101, 102	.25.00
BIO 001, 002, 091, 100, 113,	.15.00
BIO 101, 103, 111, 112, 114, 115, 116, 117, 118, 143, 151, 152, 153, 154, 155, 157	.35.00
BIO 102, 104, 105, 106, 108, 133, 140, 204, 207, 208, 241	.40.00
BIO 290	.25.00
BUS 101, 105	.10.00
BUS 137, 200, 201, 202, 208	.50.00
BUS 290	.25.00
CHE 005, 101, 102, 104, 105, 111, 112	.30.00
CHE 106, 108, 113, 114, 204, 290	.25.00
CHE 201, 202, 203, 211, 212	.50.00
CHE 103	.55.00
CHN 101, 102	.10.00
CIM 103, 218, 228	.50.00

OFFICE OF STUDENT ACCOUNTS – HOURS OF OPERATION

	CRANFORD	ELIZABETH	PLAINFIELD
Monday	8:30 am to 4:30 pm	8:30 am to 4:30 pm	11:30 am to 7:30 pm
Tuesday	8:30 am to 7:30pm	11:30 am to 7:30 pm	Closed
Wednesday	8:30 am to 7:30pm	11:30 am to 7:30 pm	Closed
Thursday	8:30 am to 4:30 pm	8:30 am to 4:30 pm	8:30 am to 4:30 pm
Friday	8:30 am to 4:30 pm	Closed	Closed

Additional office hours will be posted for registration periods.

CIS 100, 101, 102, 103, 113,
115, 116, 120, 124, 126, 130,
132, 201, 202, 21125.00

CIS 106, 140, 20410.00

CIT 011, 108, 201, 202, 203,
212, 290, 295 25.00

COM 107, 109, 206, 214,
215, 21625.00

CRJ 10325.00

CSC 021, 100, 101, 102, 111, 121,
124, 126, 165, 213, 215, 217,
221, 223, 225, 231, 285, 290 25.00

DBI 201,21015.00

EDU 264, 269349.80

EDU 267, 271301.80

EET 011, 022, 101, 102, 111,
211, 213 50.00

EGG 005, 106, 111, 112, 201 25.00

EGG 203, 205, 206, 207 50.00

ELG 10125.00

ELT 103, 117, 165, 211, 212, 214,
215, 217, 220, 221, 250, 251,
264, 266, 287 50.00

ELT 290 25.00

EMT 105, 290 25.00

EMT 103, 104, 201, 202,
204, 213 50.00

EMTA 10140.00

ENG 087, 088, 089, 098, 09910.00

ENG 02515.00

ENG 101, 102, 111, 112, 12225.00

ENG 284 Section 30035.00

ESL (PER SEMESTER)15.00

FHR 101, 102, 103, 104138.50

FIA 101, 102, 103, 104, 105,
107, 108, 109, 110, 115, 116, 121,
202, 203, 204, 209, 210 20.00

FIA 22325.00

FMG 100, 101, 102415.50

FRE 101, 102, 105, 106, 111,
112, 121, 12210.00

GER 101, 102, 105, 106, 111,
112, 121, 12210.00

GEY 101, 102, 121 35.00

GOV 105 10.00

HIS 101, 102 10.00

HUD 102, 103, 104, 105,
106, 108 10.00

HUD 215 15.00

HUD 21620.00

IDH 140 10.00

IDH 203, 21225.00

IDH 26110.00

INT 101, 10230.00

ITA 101, 102, 105, 106, 111, 112, 121,
122 10.00

LGL 10125.00

LGL 110, 111 10.00

MAT 001, 002, 011, 012, 015, 016,
022, 025 026, 055, 066, 100, 113,
117, 119, 125, 126, 127, 129, 133,
141, 142, 145, 146, 155, 161, 162,
171, 172, 241, 246, 261, 265,
271, 27210.00

MAT 128 50.00

MAT 228 25.00

MAT 26730.00

MDA 113, 114, 214, 21520.00

MET 011, 265, 29025.00

MET 106, 203, 20850.00

MET 103, 109, 113, 207, 209,
212, 213, 21975.00

MRT 116, 117, 20525.00

MRT 11350.00

MST 101, 105, 10620.00

MST 10245.00

MST 10310.00

MST 104, 10830.00

MST 10760.00

NURE 111205.00

NURE 131,132, 2313,200.00



NURE 2324,000.00

NURE 240592.00

NURE 2502,400.00

NURE 260, 270, 280, 2901,200.00

OTA 116, 21045.00

OTA 120115.00

OTA 121, 95.00

OTA 195, 22270.00

OTA 221, 291, 292120.00

OTA 293, 29460.00

PED 1015.00

PHY 00510.00

PHY 20120.00

PHY 001, 12525.00

PHY 105, 111, 112, 201, 20250.00

PHY 102, 121, 12230.00

PHYL 10130.00

PMD 106, 107, 108, 109 225.00

PNU 120,130300.00

PNU 140, 150, 160150.00

PNU 170450.00

PSY 101, 102, 205, 206, 207,
208, 21110.00

PSY 27150.00

PTA 115, 140, 22145.00

PTA 130101.00

PTA 218, 220 70.00

PTA 224159.00

RTT 105, 206, 21050.00

RTT 114, 214, 215151.00

RTT 320 45.00

SOC 101, 102 10.00

SOC 271, 273 50.00

SPA 101, 102, 105, 106, 111,
112, 121, 12210.00

TRN 10130.00

ALL TELECOURSES
(SECS. 077, 078, 177, 277)35.00

Except HUG 101 Sections
077, 078, 177, 178, 277, 278.45.00

FINANCIAL AID

Union County College encourages all students to apply for all forms of student financial assistance that may be available. Financial Aid Offices are located on the Cranford, Plainfield and Elizabeth campuses to assist students.

The basic premise of financial aid is that the primary responsibility for meeting the cost of attending a post-secondary institution rests with the family. The primary purpose of student financial aid is to provide economic resources to students who have demonstrated financial need and who would otherwise be unable to pursue a post-secondary education.

The information reported by a student when applying for financial aid is used to calculate an Expected Family Contribution, the amount the student and his/her family can be expected to pay toward his/her education. Union County College Financial Aid Office determines a student's cost of education, considering charges for tuition and fees, estimated costs for supplies, living and traveling expenses, and other miscellaneous education expenses. The student's demonstrated financial need is the difference between the student's cost of attendance and Expected Family Contribution.



APPLICATION PROCEDURES

To apply for financial aid, students must complete a Free Application for Federal Student Aid (FAFSA), making certain to authorize release of the information to Union County College, code 002643. Returning students may complete the Renewal FAFSA, which is mailed directly to students from the U.S. Department of Education, confirming Union County College, 1033 Springfield Avenue, Cranford, New Jersey, as the college choice.

Students may submit the completed FAFSA themselves electronically over the internet at <http://fafsa.ed.gov>. If you don't have a **Personal Identification Number (PIN)**, apply for one now at <http://www.pin.ed.gov>. You'll need a PIN to electronically sign your FAFSA. If you're a dependent student, your parents should also apply for a PIN now so that they can electronically sign your FAFSA. You can also submit the completed FAFSA to the UCC Financial Aid Office for electronic transmission in early March. (if you will be attending Union County College).

A Student Aid Report (SAR) will be received in the mail from the Federal Processor several weeks after submission of the FAFSA. The SAR must be reviewed for accuracy. If corrections are necessary or if the college choice must be corrected to Union County College, the student must make all appropriate revisions, sign and submit the SAR to the Financial Aid Office. Documentation to verify the accuracy of the corrections must be submitted with the SAR. Financial Aid staff members will electronically submit the corrections to the Federal Processor. For questions regarding the status of the FAFSA or to request a duplicate SAR, call Pell Grant Programs at 319-337-5665. Muhlenberg students should submit the SAR to the Muhlenberg Director of Financial Aid.

If the student's application is selected for verification and or quality assurance, the student will have to complete a Federal Verification Worksheet, must attach his/her and spouses signed Federal Income Tax Return (Form 1040, Form 1040A, or Form 1040EZ), along with all W-2's and bring these forms to the Financial Aid Office. If the student is a dependent student for financial aid purposes, the student must attach a signed copy of his/her parents' entire Federal Income Tax Return (Form 1040, Form 1040A, or Form 1040EZ), along with all W-2s and bring these forms to the

Financial Aid Office. Copies of all documents submitted to the Financial Aid Office become the property of Union County College.

Once all application materials are reviewed by the Financial Aid Office, the student will be notified if the Financial Aid Office needs additional information, or the student will receive a Financial Aid Award Notification Letter.

The student will receive a Student Eligibility Notice (SEN) from the New Jersey Department of Higher Education. This is a notification of state aid eligibility. This award is not finalized until the student's file has been reviewed and approved by the Financial Aid Office. Union County College must be indicated on the SEN as the college the student is attending. The student must make the correction if necessary. If the student has any questions regarding New Jersey State Aid eligibility, call 1-800-792-8670.

Both full-time and part-time students are eligible to apply for financial aid. For financial aid purposes, a full-time student is one who is registered for at least 12 credits per semester; a part-time student is one who is registered for less than 12 credits per semester. Financial aid awards are adjusted according to the number of credits for which the student is registered per semester.

Students may call or visit any one of the three campuses to receive additional information on Financial Aid Workshops, the application process, or student aid eligibility.

Cranford Campus

1033 Springfield Avenue
Cranford, NJ 07016
(908) 709-7137

Elizabeth Campus

12 W. Jersey Street
Elizabeth, NJ 07202
(908) 965-6063

Plainfield Campus

232 East Second Street
Plainfield, NJ 07060
(908) 412-3571



APPLICATION DEADLINE DATES

To insure full consideration for all sources of funds available, students should adhere to the preferred filing deadlines:

FALL SEMESTER - MAY 1 SPRING SEMESTER - SEPTEMBER 1

Certain funds are available on a limited basis; therefore, it is in the student's best interest to apply as early as possible. Union County College recognizes that students make late applications due to circumstances beyond their control. The College will give full consideration to all applications received after the dates indicated previously, in accordance with availability of financial aid funds and the student's eligibility for funds.

ELIGIBILITY

To be eligible for Federal and State financial aid programs, students must meet the following minimum requirements:

- Demonstrate financial need for most programs.
- Have a High School diploma or a General Education Development (GED) certificate, or the student must pass an independently-administered test approved by the U.S. Department of Education.
- Be enrolled as a degree student in an eligible program.
- Be a U.S. citizen or eligible non-citizen.
- Have a valid Social Security Number.
- Make satisfactory academic progress, according to Union County College standards.
- Must not be in default on a previously awarded student loan or owe a refund on a previously awarded grant.

Students with disabilities who do not have a high school diploma and are seeking financial aid must provide written documentation of their disability in order to take the Ability to Benefit test with accommodations. This must include a diagnosis and recommended testing accommodations by a learning disabilities specialist, licensed psychologist, medical physician or a record of such a determination by a secondary school or a vocational rehabilitation agency including a diagnosis and recommended testing accommodations.



TYPES OF AID AVAILABLE

FEDERAL

Federal Pell Grant: The actual amount of the grant is determined by the Federal processor based on data provided on the student's financial aid application and the student's enrollment status. All students who meet the eligibility requirements for the Pell Grant program will have the award applied directly to his/her account when a determination of the accuracy of the data on the Student Aid Report (SAR) has been completed by the Financial Aid Office staff.

Federal SEOG: Federal Pell Grant eligibility applicants with the highest financial need are awarded Federal SEOG on a first-come, first-served, funds available basis. The award will be applied directly to the student's account.

Federal Work-Study: Institutional work-study applications are distributed to all students who meet the eligibility requirements and indicate an interest in on-campus or off-campus community service jobs. Applications are reviewed on an as-received basis for available positions, and every effort is made to match the student's skill level with the skills required for each position. Job placement is not guaranteed since placement is dependent on skills, student schedule, student initiative, job availability and federal funding.

The dollar amount of the work-study award indicated on the Financial Aid Notice represents the maximum amount the student can earn for the enrollment period. The hourly rate for work performed is determined based on the skill level required and the student's length of service in a particular job.

Earnings for work performed are paid directly to the student through the College payroll processing system. It is the student's responsibility to submit time sheets according to the schedule distributed to all student employees and supervisors to ensure timely processing of paychecks. The paycheck is routinely mailed to the student's home address unless the student makes other arrangements with the Payroll Department.

Prior to the start of employment, students who meet all eligibility requirements must:

- Contact the Student Employment Coordinator to complete W-2, 1-9 Verification and Institutional Oaths of Allegiance/Office Forms.
- Attend an interview with the prospective supervisor.
- If hired, arrange a work schedule. Students cannot work more than 20 hours per week while classes are in session; 40 hours per week when classes are not in session.
- Complete, along with the supervisor, a Work-Study Referral form which indicates the work schedule, hourly rate, and maximum allowable earnings

The student is required to contact the supervisor when the student cannot report to work as scheduled. All student employees are subject to an annual performance evaluation completed by the supervisor and maintained in the student's financial aid file.

Federal Stafford Loan (Subsidized and Unsubsidized): This loan is made to students by a lender such as a bank, credit union, or savings and loan association. Repeat borrowers must continue to borrow through the same lender. These loans are approved by a guarantee agency. Students must complete a separate loan application. Loan applications will be certified for all students who meet the eligibility requirements. The amount listed on the Financial Aid Award Notice is the anticipated amount of the loan approval. However, the guarantee agency determines final approval.

After the loan is approved by the guarantee agency, the lender sends the loan check each semester to Union County College Student Accounts Office based on the disbursement dates indicated on the loan application. Funds from this loan program will be credited directly to the student's account after the student has had entrance counseling, confirmed at least half-time enrollment (minimum 6 credits per semester), and has endorsed the loan check.

The Federal Government pays interest on the Subsidized Stafford loan while the student is enrolled on at least a half-time basis and during the six-month grace period prior to repayment. The student is responsible for the interest on the Unsubsidized Stafford loan while in school and during the six-month grace period. The interest rate on this loan is variable. Repayment on this loan begins 6 months after the student ceases to be enrolled in college at least half-time or completes his/her program of study. Exit counseling is required for all borrowers before the borrower ceases at least half-time enrollment.

Federal PLUS Loan: This loan is for parents of undergraduate dependent students. The PLUS loan is made to the parent by a participating lender. The parent and student must complete the PLUS Loan Application and submit it to the Financial Aid Office for completion. Loan applications will be certified for all applicants who meet the eligibility requirements.

The parent may apply for a PLUS loan for the total cost of education minus any financial aid assistance received. The lender, as well as the guarantee agency, must approve this loan before it is disbursed. The Union County College Student Accounts Office will contact the parent for endorsement. Checks are made co-payable to parent and Union County College. The PLUS loan will be applied directly to the student's account.

Complete information regarding the terms of, schedules for, and necessity of loan repayment is available in the Financial Aid Office.



STATE

New Jersey Tuition Assistance

Grant: The actual amount of these state awards is determined by the NJ Higher Education Student Assistance Authority and is indicated on the official Student Eligibility Notice (SEN) sent to students by that agency.

NJ CLASS PROGRAM: A loan program through the NJ Higher Education Student Assistance Authority, whereby students and/or parents of dependent students may apply for loans up to the cost of attendance minus other assistance. Students must file a FAFSA to be considered for NJCLASS. Credit approval and proof of ability to repay is required. Co-signers are allowed. Three payment options allow for repayment of interest and principle, interest only or capitalization of interest. For more information on this loan program or to apply, please go to www.hesaa.org or call 1(800)792-8670.

PUBLIC AND PRIVATE SCHOLARSHIPS

See page 232.

EDUCATIONAL OPPORTUNITY FUND PROGRAM

The Educational Opportunity Fund Program (EOF) is a state funded program that provides educationally disadvantaged students, who demonstrate a potential for academic success, an opportunity to attend college. The primary goals of the program are recruitment, retention, graduation, and transfer. Program services include specialized counseling, structured academic support, leadership development, and career planning. These services help the students to bridge the gap between their high school preparation and their college educational needs and goals. EOF counselors work closely with program participants to develop an educational and career plan that is individualized. The plan enables students to achieve realistic academic and career goals.

Students interested in the program should file the free Application for Federal Student Aid (FAFSA) to determine financial eligibility for the program. Students identified for this program are expected to attend a special six-week program in the summer before the entry year to Union County College. The summer program offers instruction and preparation for regular college course work as well as an introduction to college and campus life.

Prospective students should contact the EOF office for information and an application.



STUDENT RIGHTS WITH REGARD TO FINANCIAL AID

1. To have complete information regarding fees, payment and refund policies available to you.
2. To have all personal and family financial information treated with confidentiality.
3. To appeal to the Financial Aid Office if the student's situation warrants reconsideration of their financial aid eligibility.

STUDENT RESPONSIBILITIES WITH REGARD TO FINANCIAL AID

1. Advise the Financial Aid Office if the student changes his/her enrollment status from full-time to less than full-time.
2. All address changes are to be submitted in writing to the Financial Aid Office.
3. Advise the Financial Aid Office of any additional aid received not indicated on your financial aid award notice.
4. If student expects to withdraw or take a leave of absence from the college, the student is expected to inform the Financial Aid Office. Please refer to Repayment Policy.
5. Submit to the Financial Aid Office any required documentation for verification of financial aid and other relevant information pertaining to student's application.
6. Give permission to the Financial Aid Office to relate pertinent financial, academic, and other information to donors of aid as requested.
7. Maintain satisfactory academic progress for financial aid.
8. Grants and scholarships in excess of tuition, books, and fees are taxable income for the Federal Government. If the student receives grants and/or scholarships in excess of tuition, books, and fees, student must report this excess as income on federal income tax return.

SATISFACTORY ACADEMIC PROGRESS POLICY FOR STUDENT FINANCIAL AID

All students must be making satisfactory academic progress at UCC to establish and retain eligibility for student financial aid. UCC monitors satisfactory academic progress once a year, after the spring semester. The student's entire academic history must be considered when determining the academic progress status. The following standards explain the components to the Financial Aid Satisfactory Academic Progress Policy.

QUANTITATIVE MEASURE

Students must complete a minimum number of credits toward graduation requirements each academic year in which they are enrolled at UCC. The quantitative measurement for academic progress compares the credits attempted to credits passed. To calculate credits completed, all courses taken by the student will be counted. Below is the minimum academic progress chart that full-time students must adhere to:

End of Full-Time Semester enrolled	Credits Completed
1	0
2	12
3	24
4	36
5	48
6	64

For semesters of less than full-time enrollment, the progression is based on the below proportions applied to the full-time chart:

FULL-TIME

(12 or more credits) = 1.0 semester

THREE QUARTER TIME

(9-11 credits) = .75 semester

HALF-TIME

(6-8 credits) = .50 semester

LESS THAN HALF-TIME

(1-5 credits) = .25 semester

Students taking Remedial and/or English as a Second Language (ESL) courses must follow the progression of the quantitative chart indicated above. Even though students do not earn college credit toward graduation for Remedial and/or ESL courses-

es, students receive pass or fail grades for these courses. Remedial and/or ESL courses are evaluated for academic progress by reviewing Remedial/ESL coursework passed for appeal purposes.

MAXIMUM TIME FRAME FOR COMPLETION

The maximum time frame a student may attend and continue aid eligibility cannot exceed 150 percent of the published length of the student's academic program measured in academic years. For example, the published length of a two-year program is four semesters. Therefore, the full-time student has a maximum of 6 semesters to complete the program. When the student's enrollment exceeds the 150 percent point, the student is no longer eligible for financial aid. Readmitted students must meet the same requirements as students who have remained enrolled based on the total number of semesters attended at UCC.

All credits the student attempts count toward the 150 percent time frame requirement, even if the student changes major. If a student is pursuing two programs simultaneously, the program requiring the most credits to complete will be used to measure the maximum time frame for completion. If the student has earned a degree at UCC and pursues a subsequent degree, all courses taken toward both degrees will be calculated to measure maximum time frame.

QUALITATIVE MEASURE

The satisfactory academic progress policy requires students to maintain a minimum cumulative GPA as follows:

Students who have attempted 12 College level credits are considered to be Regular students. These students must have a minimum of 2.0 cumulative GPA after attending two full-time semesters and thereafter.

EFFECT OF WITHDRAWALS, INCOMPLETE COURSES, REPEATED COURSES ON FINANCIAL AID

If a student withdraws from course(s) after the first week of classes during a given semester, the course credits are included in the count of courses attempted. An incomplete course counts as credits attempted, but is not included in the GPA and credits completed until the incomplete grade changes to a passing or failing grade. A repeated course is counted toward progression even if it replaces a previous course for which the student received no credit.

PROCEDURES FOR APPEALING

Students not meeting the minimum standards for Satisfactory Academic Progress are ineligible for federal, state aid and certain sources of institutional financial aid (this includes grants, scholarships, work and loans). However, students may request reinstatement of their financial aid eligibility for the academic year by submitting a written appeal to the Financial Aid Appeals Committee. Appeal requests must provide an explanation of the circumstances that contributed to the student's failure to meet the minimum academic progress standards and a realistic academic plan for improvement. It is recommended that students meet with an academic counselor to develop an academic plan of action prior to submitting an appeal.

Within an academic year, students may appeal for the fall and spring combined semesters or one semester only. If fall semester appeal is denied, students may re-appeal for the following spring semester based on factors related to academic improvement or personal development during the prior semester.

If the Financial Aid Appeals Committee approves the appeal, the student's financial aid eligibility is reinstated for the applicable payment periods. For example, if the appeal is approved in the fall semester, the student regains eligibility for both fall and spring semesters. Approval in the spring semester, however, restricts eligibility to that semester only. Students receive their appeal results in writing. The decision of the Financial Aid Appeals Committee is final.

Students have an opportunity to take summer courses to help make up credits not earned during the academic year or to raise their GPAs. Even though summer credits attempted and earned are included in the calculation of satisfactory academic progress (quantitative, maximum time frame for completion, and qualitative), there is no appeal process for summer financial aid. With the exception of NJ EOF Summer Grant, students who are not meeting the minimum standards for Satisfactory Academic Progress may not receive financial aid for summer terms.

DEADLINES TO APPEAL

The deadline to appeal for combined fall and spring semesters is November 1, and the deadline to appeal for the spring semester is April 1 each year.

EOF ACADEMIC PROGRESS

EOF students enrolled full-time at Union County College may be eligible to receive 8 semesters of payment to complete an associate degree as long as they are making satisfactory academic progress. (N.J.A.C. 9A:11-2.8e) Satisfactory Academic Progress (SAP) requires the student to successfully complete institution designated remedial/developmental courses within the first two semesters of enrollment. Beginning with the third semester and with each subsequent semester students must earn a minimum of 12 college credits. Part-time Pilot students eligibility will be pro-rated accordingly.

REPAYMENT POLICY

Students receiving federal financial aid, who completely terminate enrollment or stop attending all classes during a term for which payment has been received before completing more than 60 percent of the enrollment period, are subject to specific federal regulations.

The amount of Title IV aid that a student must repay is determined via Federal Formula for Return of Title IV funds as specified in Section 484B of the Higher Education Act. This law also specified the order of return of the Title IV funds to the programs from which they were awarded.

A repayment may be required when cash has been disbursed to a student from financial aid funds in excess of the amount of aid the student earned during the term. The amount of Title IV aid is determined by multiplying the total Title IV aid (other than FWS) for which the student qualified by the percentage of time during the term that the student was enrolled. If less aid was disbursed than was earned, the student may receive a late disbursement for the difference. If more aid was disbursed than was earned, the amount of Title IV aid that must be returned (i.e., that was unearned) is determined by subtracting the earned amount from the amount actually disbursed.

The responsibility for returning unearned aid is allocated between the College and the student according to the portion of disbursed aid that could have been used to cover College charges and the portion that could have been disbursed directly to the student once College charges were covered. Union County College will distribute the unearned aid back to the Title IV programs as specified by law. The student will be billed for the amount the student owes to the Title IV programs and any amount due to the College resulting from the return of Title IV funds used to cover College charges.

SCHOLARSHIPS

A scholarship is a sum of money awarded to a student to be used for educational expenses while attending Union County College. Scholarships are available from a variety of sources including:



STATE OF NEW JERSEY

NEW JERSEY STUDENT TUITION ASSISTANCE REWARD SCHOLARSHIP (NJ STARS)

Starting with the Class of 2004, high school graduates who finish within the top 20 percent of their class and meet all other criteria are eligible for this award. Applicants must first apply for all need-based federal and merit based-state financial aid grants first, such as the Pell Grant, the Tuition Aid Grant (TAG), Edward J. Bloustein Distinguished Scholars and the Urban Scholars Program. After that, NJ STARS will cover the remaining balance of tuition and qualified fees. Those who qualify will have up to two years from the date of high school graduation to enroll and begin using the NJ STARS scholarship at Union County College.

New Jersey Tuition Assistance Grant (TAG), Educational Opportunity Fund (EOF) Grant, E.J. Bloustein Distinguished Scholarship, and Urban Scholarship:

The actual amount of these state awards is determined by the NJ Higher Education Student Assistance Authority and is indicated on the official Student Eligibility Notice (SEN) sent to students by that agency.

COUNTY OF UNION

FREEHOLDER SCHOLARS PROGRAM

The Union County Board of Chosen Freeholders has established a "Freeholder Scholars Program" for Union County residents. Effective with the 1999 Fall Semester, the scholarship covers the cost of Union County College (UCC) tuition and fees for entering or returning students who meet the following criteria.

- Full time enrollment status at UCC (12 or more credits per semester)
- A minimum of 3.0 or B average achieved in high school
- Union County resident (per existing UCC residency policy)
- Annual family income of \$75,000 or less

Students applying for the Freeholder Scholars Program must file for federal and state financial aid; the Freeholder Scholars Program award will cover the difference between UCC tuition and fees and financial aid received. Students are eligible to receive the scholarship for four consecutive fall/spring semesters providing they maintain a 3.0 grade point average at the College.

Freeholder scholarships are subject to appropriation of funds by the County of Union.

UNION COUNTY COLLEGE FOUNDATION SCHOLARSHIPS

All Union County College credit students are invited to apply. Some scholarships require full-time enrollment, while others are designed for part-time or returning students or students who meet certain criteria or have specific needs. Most scholarships require a minimum Grade Point Average (GPA) of at least 3.0 unless otherwise stated.

Application forms are available from the Financial Aid Offices on the Cranford, Elizabeth, and Plainfield campuses. Completed application forms and the required recommendations must be forwarded to the Financial Aid Office on the Cranford campus.

Students are urged to complete the necessary application form and recommendations well ahead of the specified deadline. In order to be considered for the scholarships that specify financial need, scholarship applicants must also complete the Free Application for Federal Student Aid (FAFSA).

Scholarship applications and the required recommendations must be submitted to the Financial Aid Office by the specified deadline. The applications are reviewed by the Faculty Scholarship Committee in June and scholarship recipients are notified in July.

Scholarship recipients must attend the annual Scholarship Reception, submit a thank you letter to the UCC Foundation, maintain a current mailing address and telephone number with the UCC Admissions Office, and declare a major. (International students must be accepted in a UCC degree program that issues an Associate in Arts, Associate in Science, or Associate in Applied Science.

A number of scholarships are available to students at Union County College. These scholarships have been made available from a variety of private and institutional sources. The following is a list of scholarships available to UCC students as of August 1, 2004: Individuals interested in establishing additional scholarships for the benefit of UCC students should contact the Union County College Foundation, 1033 Springfield Avenue, Cranford, NJ 07016.

AFRICAN-AMERICAN MALE INITIATIVE SCHOLARSHIP

Awarded to a full or part-time African-American male recent graduate of Westfield High School with a "C" average or better and has participated on a varsity team in his junior and senior years. If no candidate satisfies these requirements at Westfield, then a student meeting the same requirements from Cranford High School will qualify to receive the scholarship.

ALUMNI ASSOCIATION SCHOLARSHIP

Awarded to a part-time student with a minimum 2.0 GPA who has demonstrated financial need and commitment to Union County College.

AMATEUR ASTRONOMERS, INC./E.T. PEARSON SCHOLARSHIP

Awarded to a full-time student enrolled as a Physical Science or Engineering major who has completed a minimum of 24 credits with a 3.0 GPA and applied for financial aid.

AMERICAN ASSOCIATION OF UNIVERSITY PROFESSORS SCHOLARSHIP (#1)

Awarded to a full or part-time student who has completed at least 18 credits with a minimum GPA of 2.5. Recipient must have involvement in community activities and demonstrate financial need.

AMERICAN ASSOCIATION OF UNIVERSITY PROFESSORS SCHOLARSHIP (#2)

Awarded to a full or part-time student who has completed at least 18 credits with a minimum GPA of 2.5. Recipient must have involvement in community activities and demonstrate financial need.

AMERICAN WAY SCHOLARSHIP

Awarded to a full or part-time student enrolled in the ESL Program who has completed a minimum of 6 credit hours and demonstrates financial need.

VIRGINIA & HENRY APELIAN SCHOLARSHIP

Two scholarships awarded annually. The first must be of Armenian descent with priority given to financial need and academic achievement. This recipient must have a minimum cumulative GPA of 2.8 and must have completed at least 15 credits. The second scholarship will be awarded based upon academic achievement and financial need. This recipient must have a minimum GPA of 3.0 and must have completed at least 15 credits.

THE ATRION CORPORATION SCHOLARSHIP

Awarded to a full-time student enrolled in the Computer Science field, has completed a minimum of 15 credits with a 2.5 GPA and demonstrates financial need.

KATHY ATTALLA MEMORIAL SCHOLARSHIP

Awarded to a full or part-time student with a "C" average or better, from New Jersey, New York, Pennsylvania, or nationally registered EMT. Applicant must satisfy the membership criteria of the WOFAS (West Orange First Aid Squad) - 18 years of age, driver's license valid in NJ, and criminal background investigation. Recipient is expected to serve as an EMT for a minimum of six (6) hours per week, on a weekday shift, for the duration of the semester for which the award was issued.

KENNETH PIERRE BARNES MEMORIAL SCHOLARSHIP

Awarded to a full-time student over the age of 25 who has completed a minimum of 24 credits with a 2.5 GPA and applied for financial aid.

ALAN R. BARWIOLEK MEMORIAL SCHOLARSHIP

Awarded to a student in ASL or Deaf Studies Certificate or Interpreters for Deaf Degree Program who has completed 12 credits (Certificate Program) or 30 credits (Degree Program) with a minimum 3.5 GPA. Recipient must have declared interpreting as a career track, demonstrate financial need, and be a U.S. citizen.

JAMES C. BASHE MEMORIAL SCHOLARSHIP

Awarded to a student in the Allied Health Program, with priority given to a Physical Therapy student.

**CEINWEN BERGEN
MEMORIAL SCHOLARSHIP**

Awarded to a full or part-time student in his/her sophomore year from a Union County city (Elizabeth, Plainfield, Rahway, Linden, Roselle). Recipient must be a Humanities major in the Liberal Arts Program and demonstrate financial need. Recipient must have a minimum 3.0 or better cumulative GPA at the time of application for the scholarship.

**DONALD E. BILLIAR
MEMORIAL SCHOLARSHIP**

Awarded to the applicant with the highest cumulative GPA (minimum 3.0) after having completed a minimum of 20 credits.

**JOAN & PETE BLATZ
SCHOLARSHIP**

Awarded to a full-time student with preference given to a student athlete. Recipient must demonstrate financial need, have completed at least 12 credits, and have earned a minimum cumulative GPA of 3.0.

**MARTHA BRACHER &
MARGUERITE HESSEMAN
SCHOLARSHIP**

Awarded to a student who has completed 12 credits with a minimum GPA of 2.5. Recipient must be a U.S. citizen and demonstrate financial need. Priority will be given to applicants from Hillside and Hillside High School graduates.

**THE NADINE BRECHNER
SCHOLARSHIP**

Awarded to a full or part-time student who has passed Institute for Intensive English courses and is enrolled in credit courses.

**BRISTOL-MYERS
SCHOLARSHIP**

Awarded to a current or transfer full-time, matriculated student. A minimum 3.0 GPA is required to renew scholarship.

**DRS. THOMAS & TRESSA
BROWN SCHOLARSHIP**

Awarded to an entering Plainfield High School graduate who is a full-time matriculated student majoring in Elementary or Secondary Education. Recipient must maintain a 2.75 GPA to continue receiving this scholarship. Scholarship will be awarded on the basis of financial need.

**DR. TRESSA AND DR. THOMAS
BROWN SCHOLARSHIP**

Awarded to a current full-time, matriculated student in Liberal Arts (Early Childhood Elementary Education Option Pre K-3) or Liberal Arts (Education Option Grades 4-12). The student must demonstrate financial need and a commitment to Union County College.

**BRUCKNER FAMILY
SCHOLARSHIP**

Awarded to a full-time male student, born in the USA, 25 years of age or younger and have completed a minimum of 24 credits with a minimum 3.0 cumulative GPA at time of application. Recipient must be majoring in engineering and planning to pursue a bachelor's degree after graduating from UCC.

**ROSEMARY AND EUGENE
CARMODY SCHOLARSHIP**

Awarded to a student majoring in either Business or Liberal Arts with an Education option. Priority will be given to a full-time student. Recipient must have a minimum 3.0 cumulative GPA and have completed at least 24 credits. Recipient must have active participation in Union County College and/or community programs. This scholarship will be awarded on the basis of academic achievement, college or community participation, and financial need.

**LORETTA GLEASON
CASTALDO NURSING
SCHOLARSHIP**

Awarded to a full or part-time nursing student with a cumulative GPA of 2.5 or better who has completed 24 credits. The scholarship will be awarded on the basis of financial need.

CENTO AMICI SCHOLARSHIP

Awarded to a student of Italian-American descent who has completed a minimum of 24 credits with a 3.0 GPA and documents financial need.

**CENTRAL JERSEY ROAD
RUNNERS CLUB
SCHOLARSHIP**

Awarded to a deserving Union County College athlete/scholar.

COLONNA/CORMIER SCHOLARSHIP

Awarded a full-time student coming immediately out of high school with a "B+" average. The scholarship will be awarded on the basis of academic achievement and financial need.

COMMUNITY FOUNDATION OF NEW JERSEY SCHOLARSHIP

Awarded bi-annually to students enrolled in English-as-a-Second-Language (ESL) courses from a fund established by Svetlana Stalin, the daughter of Joseph Stalin.

CORPORATE CHEFS SCHOLARSHIP

Awarded to a student enrolled in a program at the Plainfield Campus who demonstrates financial need.

CRANFORD CHAMBER OF COMMERCE SCHOLARSHIP

Awarded to a full or part-time first-year student entering Union County College and a resident of Cranford who has a minimum high school GPA of 2.5 and demonstrates financial need.

JUDGE CUDDIE E. DAVIDSON, JR. MEMORIAL SCHOLARSHIP

Awarded to a full or part-time Union County College student with a minimum 2.5 cumulative GPA at the time of application. The scholarship will be awarded on the basis of financial need.

CHARLES T. DAVIS, SR. SCHOLARSHIP

Awarded to students entering the Liberal Arts Program. Must rank in top quarter of their high school graduating class or score 1100 or more on their SAT or possess unusual intellectual or artistic talent, a cumulative GPA of 3.5, or membership in Phi Theta Kappa. Students must first apply for and accept financial aid prior to receiving scholarship. Continuing recipient(s) must maintain a minimum cumulative GPA of 3.2.

DEVELOPMENTAL ENGLISH SCHOLARSHIP

Awarded to a student enrolled in a degree program who has demonstrated a commitment to college work by having successfully completed his/her developmental English requirements in reading and writing. Recipient must write a brief statement (250 words) discussing his/her educational goals at Union County College.

RACHEL ANN DRINKWATER SCHOLARSHIP

Awarded to a female Business major who is in the top quarter of her high school class or maintained a "B" average the last two years in high school. Must maintain a 3.0 GPA while at Union County College and plan to pursue a bachelor's degree after graduating from Union County College. Recipient must be a United States citizen and no more than 21 years of age.

FACULTY SCHOLARSHIP

Awarded to a matriculated student who has completed 24 credits with a minimum GPA of 3.2. Recipient must demonstrate financial need.

F.A.I.T.H. SCHOLARSHIP

Awarded to a full-time minority student, studying any major, and demonstrates financial need. Recipient must have a GPA of at least 2.5, but must continue to go up per semester. Recipient must keep in contact with the donor.

FIREMEN'S MUTUAL BENEVOLENT ASSOCIATION, LOCAL 37, CRANFORD SCHOLARSHIP

Awarded to full-time students who have completed a minimum of 12 credits with a minimum GPA of 3.0. Recipients must be residents of Cranford. The scholarship will be awarded on the basis of financial need to one male and one female student per year.

T.C. FLYNN & MEGAN RYAN MORRIS SCHOLARSHIP

Awarded to a full-time female student, a resident of Union County and a graduate of a Union County high school with a "C" average or better.

THE BARBARA H. FOLEY SCHOLARSHIP

Awarded to a Union County College ESL student who has not failed the previous ESL course. Recipient must demonstrate financial need.

THE BARBARA H. FOLEY SCHOLARSHIP II

Awarded to a full or part-time student in the I.I.E. Program who is doing well.

FOLLET TEXTBOOK SCHOLARSHIP

Awarded to Union County College students who demonstrate financial need.

THE FOX FAMILY SCHOLARSHIP

Awarded to a matriculated full or part-time student and a resident of Union County who has successfully completed at least one English-as-a-Second-Language class and a minimum of 12 credits with a "C+" GPA. Recipient must be of immigrant background and demonstrate financial need.

THE FOX FAMILY SCHOLARSHIP (#2)

Awarded to a matriculated full or part-time student and a resident of Union County who has successfully completed level 6 in English-as-a-Second-Language class and a minimum of 12 credits with a "C+" GPA. The recipient must be of immigrant background and be planning to become a teacher.

HARRIET FOX MEMORIAL SCHOLARSHIP

Awarded to a full or part-time student. Recipient must have a minimum 2.6 cumulative GPA at the time of application and have completed a minimum of 24 credits. The scholarship will be awarded on the basis of academic achievement and financial need.

THOMAS GALLAGHER SCHOLARSHIP

Awarded to a full-time second-year student who is majoring in a mathematics-related field and demonstrates financial need.

DOROTHY GASOREK MEMORIAL SCHOLARSHIP

Awarded to a full or part-time student who is a resident of Union County. Recipient must demonstrate financial need.



**THE ARTHUR GEILFUSS
MEMORIAL SCHOLARSHIP**

Awarded to a full or part-time student who has successfully completed a minimum of 24 credits with a minimum GPA of 3.0 and who intends to complete an associate's degree. Preference shall be given to a Union Township resident. Recipient must demonstrate financial need. There shall be only one scholarship recipient annually.

**THE EMMA GEILFUSS
MEMORIAL SCHOLARSHIP**

Awarded to a full or part-time student who has successfully completed a minimum of 24 credits with a minimum GPA of 3.0 and who intends to complete an associate's degree. Preference shall be given to a Union Township resident. Recipient must demonstrate financial need. There shall be only one scholarship recipient annually.

**GENERAL ENDOWMENT
SCHOLARSHIP**

The purpose of this scholarship is to prevent and deter student need for loans. Students may be full or part-time, must have and maintain a 2.0 or higher GPA, and have applied for financial aid and found to be either ineligible or only partially eligible for grants-in-aid.

**GIBSON FAMILY
FOUNDATION
SCHOLARSHIP**

Awarded to a full-time student with a minimum GPA of 2.5. Recipients must demonstrate financial need.

**DR. EDWARD GOLDA
SCHOLARSHIP**

Awarded to a student of Polish descent and/or from Poland, enrolled in either the Institute for Intensive English or regular course offerings with a minimum GPA of 3.0. Recipient must demonstrate financial need. Preference will be given to a student with interest in foreign language as a field of study.

**ROBERT M. GRAY
MEMORIAL SCHOLARSHIP**

Awarded to a student in the Nursing program who has completed a minimum of 12 credits with a 2.5 GPA and demonstrates financial need.

**THE GRAY FAMILY
FOUNDATION SCHOLARSHIP**

Awarded to a matriculated student who has completed at least 12 credits with a minimum GPA of 2.5 who is committed to success in his/her field and demonstrates financial need. Professor recommendation required. Attendance at annual Scholarship Reception is mandatory.

**DR. TOBY GRODNER
SCHOLARSHIP**

Awarded to a full or part-time Business major, with emphasis on Marketing, who has completed a minimum of 30 credits with at least a "B" average. The scholarship is awarded based upon academic achievement and financial need.

**ELIZABETH R. GRUEN
MEMORIAL SCHOLARSHIP**

Awarded to a student who has completed at least two plant science courses at UCC and must have a minimum GPA of 3.0 in the plant science courses at the time of application. Recipient must demonstrate a strong interest in horticulture and should be planning a career in horticulture. If more than one candidate for the scholarship meets these standards, special criteria will be utilized to determine the recipient for that year.

**LAVINIA & MICHAEL HAND
SCHOLARSHIP**

Awarded to a full or part-time student pursuing a professional level career in the medical field. Scholarship will be awarded on the basis of financial need.

**ROBERT F. HAND
SCHOLARSHIP**

Awarded to a Cranford resident who demonstrates good academic scholarship and financial need.

**THOMAS H. HANNEN, SR.
SCHOLARSHIP**

Awarded to a full-time student with a minimum 2.0 GPA who demonstrates financial need. Priority will be given to applicants from Winfield.

**MARGARET B. HANSON
MEMORIAL SCHOLARSHIP**

Awarded to a full or part-time Liberal Arts major who has completed a minimum of 9 credit hours with a 3.0 GPA in English courses. Recipient must plan to pursue a bachelor's degree and demonstrate both active involvement in community activities and financial need.

**PROFESSOR DONALD
HEDEEN SCHOLARSHIP**

Awarded to a full-time student who has completed at least 24 credits and is majoring in Engineering.

**ETHEL M. HEIM – A FRIEND
OF THE COLLEGE
SCHOLARSHIP**

Awarded to a full or part-time student who has completed at least 15 credits with a minimum 3.0 cumulative GPA and demonstrates financial need.

**EVERETT A. HEIM MEMORIAL
SCHOLARSHIP**

Awarded to a full or part-time student who demonstrates financial need.

**INSTITUTE FOR INTENSIVE
ENGLISH SCHOLARSHIP**

Awarded to a student who has successfully completed 12 hours of English-as-a-Second-Language (ESL) and demonstrates financial need.

**KENNETH W. AND MILDRED
F. IVERSEN SCHOLARSHIP**

Awarded to a full or part-time female student who is a single mother and a resident of Union County. The scholarship will be awarded on the basis of financial need.

**JACOBSON FAMILY
SCHOLARSHIP**

Awarded to a full-time student who is a graduate of Elizabeth High School or is currently living in Elizabeth and demonstrates financial need.

**SHARON JOHNSON
EDUCATIONAL EXCELLENCE
SCHOLARSHIP**

Awarded to a full-time EOF student who has completed a minimum of 12 credits with a minimum cumulative GPA of 3.0. This scholarship is awarded based upon financial need and academic achievement.

**JOCelyn W. JONES
MEMORIAL SCHOLARSHIP**

Awarded to a student from Plainfield who demonstrates financial need.

**ALFRED AND CARYL
KAERCHER SCHOLARSHIP**

Awarded to a full-time second-year student who is pursuing an Associate in Arts degree in Liberal Arts with a Fine Arts Option in Graphic Arts, Illustration or Visual Arts.

**BONNIE SUE KAPLAN
MEMORIAL SCHOLARSHIP**

Awarded to a nursing, Emergency Medical Technology or Paramedic student with the highest grade point average. Must have completed a minimum of 24 credits and applied for financial aid.

**J.C. KELLOGG FOUNDATION
SCHOLARSHIP**

Awarded to 4th or 5th semester students in the UCC/Trinitas School of Nursing Program or LPN to RN students in the last two semesters of the UCC/Trinitas School of Nursing Program. Recipients must have a cumulative GPA of 3.0 or better and must maintain this GPA or better to receive the scholarship for successive semesters.

**KIWANIS LUERICH
SCHOLARSHIP**

Awarded to a student who is an Elizabeth resident and demonstrates financial need and a commitment to the College or Elizabeth community. Good citizenship must be demonstrated by volunteer, charitable or public service. Recipient must have a minimum 2.0 GPA.

**THE BARBARA ANN KLOSS
SCHOLARSHIP**

Awarded to a full or part-time matriculated female student, preferably of Polish descent, in a Liberal Arts or Business Program. Recipient must have a "B" average and must have completed a minimum of 12 credits. The scholarship will be awarded on the basis of financial need.

**FERDINAND KLUMPP
SCHOLARSHIP**

Awarded to an entering or continuing student majoring in a Business or Engineering curriculum who demonstrates financial need.

**RAYMOND B. & LILLIAN B.
KROV SCHOLARSHIP**

Awarded to a full-time student who is majoring in Business. Recipient must have completed at least 12 credits with a minimum GPA of 3.0. Preference will be given to students residing in Clark.

**ESTHER & JEROME KRUEGER
SCHOLARSHIP**

Awarded to a full-time student who has completed 12 credits with a minimum GPA of 3.0 and who is majoring in an Allied Health Profession or Biology. Recipient must demonstrate financial need.

**HARRY LAMPEL
SCHOLARSHIP**

Awarded to a student who has completed at least 12 credits and is pursuing a degree with a major in Computers or Business. Recipient must demonstrate financial need. Preference will be given to a Plainfield resident or a student attending the Plainfield Campus.

**DOLORES M. LANZNER
MEMORIAL SCHOLARSHIP**

Awarded to a student majoring in Gerontology, who is a Union County resident and demonstrates financial need. Recipient must also demonstrate a commitment to the program and must write a letter stating goals and objectives while in the Gerontology program.

**MR. & MRS. JAMES LAPPINO
SCHOLARSHIP**

Awarded to a full-time Liberal Arts major with an Education option who has completed a minimum of 12 credits with a 3.0 GPA and demonstrates financial need. Priority will be given to students interested in Special Education.

**LAWRENCE-COLLINS
SCHOLARSHIP**

Awarded to a full or part-time student having completed 12 credits. Recipient must demonstrate active involvement in community activities (for example, a religious or social organization). Recipient must have a minimum 3.0 cumulative GPA and demonstrate financial need. Preference will be given to a Plainfield resident.

**LESSNER FAMILY
SCHOLARSHIP**

Awarded to a full-time student with a cumulative GPA of 3.0 and a minimum of 24 completed credits. Financial need and academic achievement are considered in awarding this scholarship.



**LINDEN LIONS CLUB
SCHOLARSHIP**

Awarded to a full-time student who has completed one year of college. Recipient must be a Linden resident with a disability. First preference will be given to a hearing impaired or blind student.

L'OREAL USA SCHOLARSHIP

Awarded to minorities and women who are not currently in the work force.

**RICHARD O. LUSTER
MEMORIAL SCHOLARSHIP**

Awarded to a second-year student who is majoring in Engineering. Recipient must demonstrate financial need.

**REBECCA LYDON MEMORIAL
SCHOLARSHIP**

Awarded to a full or part-time student who has completed a minimum of 12 credits with a "C+" average at the time of application. Recipient must demonstrate financial need.

**MACDONALD/MCMINN/
WHITAKER
SCHOLARSHIP**

Awarded to a full or part-time female student over the age of 25. Recipient must have a "B" average at the time of application and have completed a minimum of 12 credits. Recipient must submit an application to the College's Financial Aid Office.

**DR. KENNETH C. MACKAY
MEMORIAL SCHOLARSHIP**

Awarded to a full-time student who has completed a minimum of 12 credits with a 3.0 GPA in History/Government and demonstrates financial need.

**IAN MACRITCHIE MEMORIAL
SCHOLARSHIP**

Awarded to a student who is majoring in Business or Communications and has completed 24 credits with a minimum GPA of 2.5. Recipient must demonstrate financial need.

**THE JOHN A. & RUTH DAVIS
MANGER SCHOLARSHIPS**

Three scholarships awarded annually. One scholarship will be awarded to a full-time student enrolled in the American Sign Language and Deaf Studies Program with a "B+" or better average and completed at least 12 credits. Two scholarships will be awarded to part-time students enrolled in the American Sign Language and Deaf Studies Program with a "B" or better average and completed at least 12 credits. For all scholarships, first preference will be given to Cranford residents. If there are no appropriate candidates from Cranford, then students from Union County who meet the requirements will qualify to receive the scholarships. All scholarships will be awarded on the basis of financial need or outstanding scholarship and related achievement.

**HARRY B. MARTIN
MEMORIAL SCHOLARSHIP**

Awarded to a full-time student whose major area of study is devoted to the protection of our environment. Recipient must have completed a minimum of 12 credits with a 3.0 GPA and demonstrate financial need.

**JUDY DANETZ MAYER
SCHOLARSHIP**

Awarded to a matriculated female student who is a single, widowed or divorced mother over 30 years of age. Recipient must have successfully completed English 089 with a "B" or better and a minimum of 9 credit hours. Applicants must write a 250-word essay explaining how her self-concept has changed since starting at Union County College.

**JOHN H. & SERENA M.
MCCOY SCHOLARSHIP**

Awarded to a student who demonstrates financial need.

**DR. WILLIAM H. MCLEAN
MEMORIAL SCHOLARSHIP**

Awarded to a full or part-time student who plans on enrolling in the Engineering Program. The scholarship will be awarded based on financial need.

**BARBARA NEBLETT
MEMORIAL SCHOLARSHIP**

Awarded to a current Institute for Intensive English student who has successfully completed one year and is currently enrolled in level 3 or 4.

CHRISTINE S. NELSON SCHOLARSHIP

Awarded to a full or part-time Union County College student age 35 or older with a minimum 3.0 cumulative GPA at the time of application. The scholarship will be awarded on the basis of financial need.

NEWARK BETH ISRAEL HOSPITAL SCHOOL OF NURSING ALUMNAE ASSOCIATION SCHOLARSHIP

Awarded to a full or part-time student who resides in Union or Essex County. Recipient must be a second semester student in the Nursing Program and have a "B-" or better average. The scholarship will be awarded on the basis of financial need.

NEW JERSEY COMPUTER CLUB FOUNDERS' MEMORIAL AWARD SCHOLARSHIP

Awarded to a full or part-time student with a minimum 2.5 average or better and who is a resident of New Jersey. Recipient must be enrolled in a computer-related training program and have a willingness to share computer knowledge with others. Recipient will attend meeting with a New Jersey Computer Club representative to accept the check at the Club.

SUE NOVAK, RN, CHPN NURSING SCHOLARSHIP

Awarded to a full or part-time student who plans on enrolling in the Nursing Program. Preference will be given to a Plainfield resident or an entering student from Plainfield High School.

OVERLOOK HOSPITAL AUXILIARY SCHOLARSHIP

Awarded to a full or part-time student majoring in nursing or allied health careers. Preference will be given to employees of Overlook Hospital, people who are returning to the job market, or studying for a career change. The scholarship will be awarded on the basis of financial need.

DR. SAUL ORKIN & MARIA LYDIA ORKIN MEMORIAL SCHOLARSHIP

Awarded to a Liberal Arts student who has completed at least 24 credits with a minimum GPA of 3.5.

SUSAN PANCURAK MEMORIAL SCHOLARSHIP

Awarded to a student entering the second year of the Physical Therapy Assistant Program. Must demonstrate a sense of maturity and responsibility and keen interest in the profession.

PEPSI SCHOLARSHIP

Awarded to a full or part-time student who demonstrates financial need.

FRANK J. PETERPAUL SCHOLARSHIP

Awarded to a full-time student enrolled as a Liberal Arts major with a minimum 2.5 cumulative GPA and must have completed a minimum of 12 credits. The scholarship is awarded based upon academic achievement and financial need. Applicants must apply and be eligible for financial aid.

VINCENT C. PIRO MEMORIAL SCHOLARSHIP

Awarded to a full or part-time art student of very limited means. Recipient must maintain a "C" average or better. Recipient must attend annual Scholarship Reception. The scholarship will be awarded on the basis of financial need.

EMIL PRAZAK MEMORIAL SCHOLARSHIP

Awarded to a second-year student majoring in Business or Engineering and who is preferably attending classes in the evening.

ELEANOR B. REINER FOUNDATION ASL/DEAF STUDIES SCHOLARSHIP

Awarded to a student in the ASL or Deaf Studies Certificate or Interpreters for Deaf Degree Program.

VICTOR M. RICHEL FAMILY FOUNDATION SCHOLARSHIP

Awarded to a full or part-time student. Recipient must be a graduate of Governor Livingston High School. Scholarship will be awarded on the basis of financial need.

RICHEL-LEPREEE FAMILY SCHOLARSHIP

Awarded to a student majoring in Liberal Arts with an Education option. Priority will be given to a student who has completed ESL classes. Recipient must have a minimum 3.0 cumulative GPA and have completed at least 24 credits. Scholarship will be awarded on the basis of academic achievement and financial need. Recipient must document plans to become a teacher.

SUSAN ROBERTSON MEMORIAL SCHOLARSHIP

Awarded to a full or part-time student who is planning to study Library Science or who is an English Major. The scholarship will be awarded on the basis of financial need.

THE SABATINO FAMILY SCHOLARSHIP

Awarded to a full or part-time student who has completed a minimum of 18 credits with a 3.0 GPA.

SCHERING-PLOUGH FOUNDATION ALLIED HEALTH SCHOLARSHIP

Awarded to a student in Allied Health who attends the Elizabeth Campus and who resides in Elizabeth, NJ or Union County.

BEN A. SCIARRILLO MEMORIAL SCHOLARSHIP

Awarded to a full-time student who resides in Union County. Recipient must have a minimum GPA of 3.0 and enrolled in the Physical Sciences or Engineering Program.

SCORE SCHOLARSHIP (SERVICE CORPS OF RETIRED EXECUTIVES)

Awarded to a full-time second-year student in the Business program who demonstrates financial need. Recipient must be a New Jersey resident and have a minimum GPA of 3.5.

SEPTEMBER 11TH MEMORIAL SCHOLARSHIP

The primary criteria are to provide assistance to individuals and their immediate families who were impacted by the events of September 11, 2001 who do not have adequate relief from other sources. In the event there are no candidates who meet the primary criteria, the scholarship will be awarded to students pursuing a degree in one of the emergency serving professions. There are no academic criteria and the scholarship may be awarded to an entering full or part-time student.



C.W. SHARP & T.L. MURPHY SCHOLARSHIP

Awarded to a matriculated full or part-time student entering with a "C" average or better and an Elizabeth High School or St. Mary's High School graduate. Special consideration will be given to a first generation college student. Recipient must get a letter of recommendation from high school guidance counselor, write an essay and interview with the donors. Recipient must maintain a 2.5 or better GPA in order to continue receiving the scholarship. Recipient must demonstrate compassion toward others and a history of community service. Recipient must visit his/her former high school to serve as a role model to those who come after. The scholarship will be awarded on the basis of financial need.

TARAS SHEVCHENKO SCHOLARSHIP

Awarded to a full or part-time matriculated student of Ukrainian descent with a minimum cumulative GPA of 3.0 and a minimum of 12 credits. The applicant must submit a 300-word essay (word processed) on some aspect of Ukrainian life (e.g., culture, history, economy, education, technology), past or present. The scholarship will be awarded on the basis of academic achievement, financial need and evaluation of the essay.

DR. WALLACE SMITH & LISA CHAMBERS SMITH SCHOLARSHIP

Awarded to a full or part-time student majoring in Liberal Arts (Psychology option). Recipient must have a 3.0 or better GPA at the time of application for the scholarship and have completed a minimum of 30 credits. The scholarship will be awarded on the basis of academic achievement.

ROSA BELLO SPINA MEMORIAL SCHOLARSHIP

Awarded to a female student majoring in the Sciences who has successfully completed a minimum of three science courses and has a minimum GPA of 3.0.

KENNETH J. STAUSLAND ANNUAL SCHOLARSHIP

Awarded to a full-time second-year student who demonstrates financial need.

SOPHIE & NICHOLAS STEFIUK SCHOLARSHIP

Awarded to a full-time student having completed a minimum of 12 credits and earned at least a 3.0 cumulative GPA. This scholarship will be awarded based upon academic achievement and financial need. Recipient must write a letter documenting a keen desire to achieve higher education.

STUDENT GOVERNMENT ASSOCIATION PARTICIPATION SCHOLARSHIP

Awarded to a matriculated student with a minimum GPA of 2.5 who is involved in student clubs and activities.

STUDENT GOVERNMENT ASSOCIATION PART-TIME SCHOLARSHIP

Awarded to a part-time student enrolled for 11 credits or less per semester who demonstrates financial need.

STUDENT GOVERNMENT ASSOCIATION SCHOLARSHIP

Awarded to part-time students who demonstrate financial need.

THE TRUTH SCHOLARSHIP

Awarded to a full-time minority student from Elizabeth, Cranford or Plainfield who demonstrates financial need, with a GPA of 2.75 or higher and continues full time until graduation or transfer to a four-year school. Recipient may choose any major and must type a 5-7 paragraph essay on why he/she chose the major. Student must apply each semester for this scholarship.

UBS WESTFIELD SCHOLARSHIP

Awarded to a full or part-time student who is a resident of Union County. Recipient must be a Business major with a "B-" or better average. The scholarship will be awarded on the basis of financial need.

UNION COUNTY COLLEGE FOUNDATION SCHOLARS

A two-year scholarship for entering first-year students who rank in the top quarter of their high school graduating class or score 900 or more on their SAT or possess unusual intellectual or artistic talent and are residents of Union County. Students must maintain a minimum 3.0 GPA to renew their scholarships.

UNION COUNTY COLLEGE FOUNDATION SCHOLARSHIP FOR PART-TIME STUDENTS

Awarded to part-time needy students.

DEAN S. VAN DER CLUTE SCHOLARSHIP

Awarded to a full-time student who is entering the second year and is an Architecture major. Recipient must be a U.S. citizen.

VERIZON SCHOLARSHIP

Awarded to a full-time matriculated student who has completed his/her first year at Union County College, is a New Jersey resident, and demonstrates financial need.

MADELINE M. & ANTHONY A. VERTELIS SCHOLARSHIP

Awarded to a full or part-time student who is a Linden High School graduate and resides in Linden or Union. The scholarship will be awarded on the basis of financial need.

WACHOVIA SCHOLARSHIP

Awarded to a full or part-time Union County College student residing either in Orange, Elizabeth or East Orange. Recipient must have completed 24 credits with a minimum GPA of 3.0. Scholarship will be awarded on the basis of academic ability and financial need.

WAKEFERN/SHOPRITE LPGA CLASSIC SCHOLARSHIP

Awarded to a full or part-time Business major who has completed 12 credits with a 2.8 GPA and demonstrates both active involvement in community activities and financial need. Preference will be given to a student enrolled in Food Industry Marketing and Management courses.

JOHN ALLISON WARD MEMORIAL SCHOLARSHIP

Awarded to a full or part-time student with a minimum 3.0 cumulative GPA at the time of application. The scholarship will be awarded on the basis of financial need.

JUDGE CHESTER & EMILY WEIDENBURNER SCHOLARSHIP

Awarded to a full-time student who is a Linden High School graduate. Recipient must have a minimum cumulative GPA of 2.0 and at least 12 completed credits. This scholarship is awarded based upon academic achievement and financial need.

WEIDENBURNER FAMILY SCHOLARSHIP

Awarded to a full-time student who is a Linden High School graduate. Recipient must have a minimum cumulative GPA of 2.0 and at least 12 completed credits. This scholarship is awarded based upon academic achievement and financial need.

HARRY A. WEINBERGER MEMORIAL SCHOLARSHIP

Awarded to a Union County College student in the Paramedic program. Preference will be given to a Union Hospital student. Recipient must have a minimum 3.0 GPA on pre-requisite general education course work, and a 3.0 or better in the fall semester of the Paramedic program. The scholarship will be awarded on the basis of academic achievement and exceptional EMS skills.

WILLIAM WEST SCHOLARSHIP

Awarded to a student who demonstrates financial need.

WESTFIELD FOUNDATION SCHOLARSHIP

Awarded to one or more Westfield residents attending Union County College who have financial needs.

WESTFIELD RESCUE SQUAD SCHOLARSHIP

Awarded to students who are enrolled in the Paramedics program and who have a strong academic background. This scholarship will be awarded based upon academic achievement and the commitment to volunteer.

WESTFIELD RESCUE SQUAD EMT OPPORTUNITY SCHOLARSHIP

Awarded to a full or part-time student and a certified EMT. Each recipient must commit to one (1) year of volunteer service at the Westfield Rescue Squad, as defined by Westfield Rescue Squad policy. The scholarship may be applied to any field of study or degree program in return for this commitment.

FREDERICK R. WIEHL MEMORIAL SCHOLARSHIP

Awarded to a full-time student enrolled in the Allied Health field, has completed a minimum of 12 credits with a 3.0 GPA and demonstrates financial need.

DORIS KIEFER WOLF MEMORIAL SCHOLARSHIP

Awarded to a full-time matriculated female student in the Biology, Chemistry or Pre-Med program who has completed her first year and is a resident of Union County. Recipient must have a minimum 2.0 GPA.

PROFESSOR ELMER WOLF SCHOLARSHIP

Awarded to a full or part-time student who is an Engineering or Science major. Recipient must have a minimum "B" average. Recipient must be planning to transfer to a four-year institution to pursue a bachelor's degree.

C.J. YAO FOUNDATION SCHOLARSHIP

Awarded to a full or part-time art student who has a "B-" or better GPA. The scholarship will be awarded on the basis of academic achievement and financial need.

CYNTHIA ZIOLKOWSKI- ANGUS MEMORIAL SCHOLARSHIP

Awarded to a full-time female student majoring in Nursing. Priority is given to a student who plans to transfer to a four-year institution. A minimum of 12 credits must be completed with a minimum GPA of 3.0. The scholarship will be awarded based upon academic achievement and financial need.

JACK ZISSEL MEMORIAL SCHOLARSHIP

Two scholarships - one awarded to a student with a disability who has a minimum GPA of 2.0; second awarded to a second-year basketball player with a minimum GPA of 2.0. The scholarship awarded to the basketball player alternates in that it is awarded to a male one year and a female the next year.



ACADEMIC FREEDOM

A faculty member is entitled to freedom in the classroom in discussing his or her subject, but should be careful not to introduce into his or her teaching controversial matter which has no relation to his or her subject.

ACADEMIC INTEGRITY STATEMENT

It is expected that students will present as their own work only that which they have done themselves. The College will not condone academic dishonesty at any time, whether it be plagiarizing (the act of passing off someone else's ideas as your own), or cheating by any means during a test, an examination, or in any work intended to be done independently.

Any student who is found guilty in violation of academic integrity by a faculty member is subject to any or all of the following actions:

A grade of F for the work in question.

1. Any other action deemed appropriate by the faculty member, including lowering of the final grade for the course and/or makeup work.
2. Immediate and complete failure for the course.
3. A Censure or Probation initiated by the faculty member and enacted by the Dean of Student Services Office. This includes the creation of a file in the student's name with full documentation of the act of academic dishonesty.
4. Upon the recommendation of the Academic Vice President, immediate dismissal from the College. This decision may be appealed to the Judicial Committee.

ACADEMIC INTEGRITY INCLUDES THE FOLLOWING:

- a) Honest inquiry in the search for truth and understanding is the common purpose of faculty and students; it entails the courage to present and the tolerance to entertain divergent views where intellectual differences exist.
- b) Provision of an environment conducive to learning is the primary function of all administrators, faculty, and staff members and the responsibility of trustees.
- c) Responsible teaching demands faithful attendance at assigned classes and accessibility to students outside classes;

respect for the personal dignity and worth of each individual student without prejudice; the determination to uphold rigorous curricular standards; the practice of honesty in defining and impartiality in applying grading standards that reward excellence, identify failure as distinct from mediocrity, and assure the integrity of academic credits; the willingness to undertake measures to prevent student cheating and to impose penalties whenever cheating occurs; and adherence to high standards of personal behavior as a contribution to the ethical tone of the campus.

- d) Honest pursuit of research and scholarship by faculty and students demands attribution of credit to all individuals who participated in the conduct or contributed to the completion of a project, paper, publication, or experiment; citation of the specific source of all information, ideas, and quotations not original to the author; and respect for truth in reporting experimental findings or the results of scholarly inquiry.
- e) The proper fulfillment of academic requirements demands the presentation of such homework assignments, term papers, examination papers, or other evidences of effort as are solely the fruits of a student's own work; the practice of fairness in competing with peers through recognition of others' equal right to gain access to information and materials, through respect for common facilities and equipment, and through adherence to rules governing their use.
- f) Responsible administrative oversight requires equity in recruitment, hiring and admissions practices; attention to the educational needs of all students admitted, including provision of remedial programs where necessary; fairness in procedures governing promotion and tenure decisions; supervision of faculty members' outside employment to prevent conflicts of interest or responsibility; insistence on accuracy and truthfulness in all materials and presentations describing the institution; formulation and periodic dissemination of an institutional code of academic ethics; encouragement of adherence to the principles of the code by frequent publication of penalties for violations and their firm application when infractions occur; and creation of a campus climate of ethical behavior through the exemplary conduct of administrative functions in dealing with students, faculty, staff, and the public.



g) The exercise of trusteeship demands the governing boards resist all attempts by external agencies or persons to exert inappropriate pressure on colleges and universities, and that they publicly embrace the principles of academic integrity, carefully monitor institutional efforts to nurture ethical conduct, and strongly support the enforcement of institutional codes governing matters of academic ethics.

h) Compliance with any of the foregoing statements is a joint responsibility of the faculty and administration.

ACADEMIC ADVISEMENT

Counseling Services offers a comprehensive program for academic advising to assist students from the onset of their college experience. Advisors are available to guide students in selection of courses, choice of major, and to assist the student in general orientation to college life. Advisors are also available to help students with curriculum changes, resolution of scholastic difficulties, transfer advisement, and career direction. In addition to individual advising, workshops for the above are periodically offered by Counseling Services on all campuses.

ANIMAL DISSECTION

Some dissection of animal specimens is required of students enrolled in the laboratory portion of the following courses: BIO 102, 105, 106, 110, and 111.

EXAMINATIONS, TESTS, AND QUIZZES

A two-and-one-half-hour final examination is given at the conclusion of most courses unless there is notice to the contrary. Students are required to take all tests or examinations on the days scheduled when such tests or examinations are announced in advance by the instructor. Make-up tests or examinations shall be given at the discretion of the instructor.

Unannounced quizzes may be given at the instructor's discretion.

CHALLENGE EXAMINATIONS

In some courses, department examinations (challenge examinations) may serve as the basis for getting credits. A student must receive permission from the department chairperson in order to qualify for credit; students who pass the examination will be awarded full credit. A grade of "C" or better must be achieved in order to pass a departmental examination for course credit. The student's transcript will list the course and semester hours, but in lieu of a grade, there will be a notation "credit by examination". Should the student fail the examination, a copy of the notice indicating failure will be filed with his/her personal file. A student may attempt to challenge only the maximum number of transfer credits allowed by the College minus the number of transfer credits he/she has already received.

Challenge examinations may be used to validate successful knowledge about a course that was taken more than ten years ago. On the other hand, no student who has taken and failed a course shall be permitted to retake the course via the challenge examination.

A student who wishes to obtain advanced standing through an approved department examination must obtain a form/application from the appropriate department chairperson. If, after a discussion with the appropriate chairperson, the student is deemed eligible, he/she completes the Request for Advanced Standing by Challenge Examination form to initiate the process.

After payment of the required fee, the completed form and payment receipt are then brought to the Department Chairperson so that the time and date of the examination can be determined. Examinations should be scheduled at a mutually convenient time for the student and faculty member.

The required fees for challenge examinations will be based upon 50 percent of the current course tuition. Students will be furnished orally or in writing general statements about what course materials will be covered in the challenge examination.

REGISTRATION

Registration, the process by which an admitted student enrolls and arranges to pay his or her tuition and fees, must be completed each semester. There is a charge for late registration. The registered student receives a class schedule which is his or her permit to enter class. An identification card is mailed to new students after the 5th day of each regular semester. The identification card, which must be validated each continuous semester, also serves as a Library card.

Freshmen and other new students who enroll are assisted by a member of the counseling staff or advisor to complete a registration form. At this time, they are advised as to the requirements of their program of study and guided in the choice of electives. (Placement testing is mandatory to evaluate certain academic skills).

During each term thereafter, students submit their schedules for the next semester in accordance with registration instructions. Students are encouraged to seek the assistance of the College counselors, program coordinator, or faculty advisor in planning their schedules. It is, however, the student's responsibility to be aware at all times of the graduation requirements of his or her curriculum, to select the correct courses, to accumulate the required number of credits, and to avoid duplication of subjects. A full-time student may carry 12 to 18 semester hours. Written permission from the Vice President of Academic Affairs or Registrar is required to register for more than 18 semester hours. Such permission will not be given unless the student's overall Grade Point Average (GPA) indicates that the student is capable of carrying the additional load.

A current student who wishes to change his/her curriculum must complete a curriculum change form with a counselor prior to registration. All new students wanting to matriculate must complete a matriculation form located in the Admissions Office.

Students who, after having registered, decide not to attend before the beginning of the ensuing semester must meet with a member of the counseling staff to complete a drop form which is processed through the Registration Office. Students dropping all courses, with no intentions of returning the following semester, should return the registration materials such as student's validated schedule and identification card to the Registration Office. Tuition refunds are made through the Student Accounts Office.

Students may register for only one section of a given course in any given academic term.

Muhlenberg School of Nursing students must consult with their School of Nursing Advisor for registration and schedule changes. Registration for all courses must take place through the Faculty Advisor assigned to each student according to the procedures outlined by the School of Nursing Registrar's office. Trinitas School of Nursing students must consult with a counselor from Union County College unless registering for nursing courses only. Trinitas Students taking only nursing courses must register with their School of Nursing Advisor. All Union County College/University of Medicine and Dentistry of New Jersey students must register with the Coordinator of the Joint Program at the Scotch Plains Campus. Students who have not settled financial obligations incurred at the College for a previous semester will be prohibited from registering for the next semester until such outstanding debts are satisfied. There may be a fee incurred for switching sections.

The college reserves the right to cancel any course where there is insufficient enrollment.

REGISTRATION FOR INSTITUTE FOR INTENSIVE ENGLISH

Registration for students who enroll in the Institute for Intensive English is held before the start of each semester. At this time, they are assigned to the appropriate level course on the basis of placement testing. Enrollment is limited, therefore continuing students are registered before new students are accepted.

Before new ESL students can register, they must file an application for admission as early as possible, appear in person for a pretest interview appointment, and take an ESL placement test on their scheduled date.

CURRICULUM CHANGE REQUESTS

Students may apply for a change of their curriculum or program only after consultation with a member of the professional counseling staff. The required form must be completed and signed by the counselor and student and then forwarded to the Admissions Office for processing. Students requesting a change to an Allied Health major should complete a new application.

Students may change their initial curriculum choice only once without payment of a processing fee. A fee will be charged for the second and subsequent curriculum changes.

SCHEDULE CHANGES

Limitations on section size make it impossible for every student to arrange a schedule which will meet his/her personal convenience in every instance. The student's academic obligations must take precedence over his/her personal commitments, including part-time jobs. Students may drop/add a scheduled class(es) prior to the 5th day of the regular and Late Start semester or 3rd day for Summer and Winter Classes, by meeting with a counselor to complete the appropriate forms. There is a charge for schedule changes other than those due to an error in computer input, overlapping in course hour conflicts or class cancellations.

EOF, Health Technology, Muhlenberg Schools of Nursing, Medical Imaging and Therapeutic Sciences and Union County College/University of Medicine and Dentistry of New Jersey students must have schedule changes completed by the Program Advisor. Trinitas students must do all nursing course changes with the Trinitas advisor.

WITHDRAWAL FROM COLLEGE

Withdrawal from all courses in which a student is enrolled in a given semester constitutes a withdrawal from College.

To withdraw from College a student must see his/her advisor or a counselor for an exit interview and completion of the process. No student may withdraw from the College in good standing without consulting a counselor and/or advisor and completing a drop form stating the reason for withdrawing. Unless this form has been completed by the student and the counselor prior to leaving the College, the withdrawal is considered "unapproved" and will result in a final grade of "F" or "UF" in all classes.

The official withdrawal date is that on which the counselor signs the withdrawal form. Official withdrawal from classes or college cannot be completed by telephone. Withdrawal requests must be made in writing via certified mail with a

brief statement including the reason for withdrawal, and the signature of the registered student. The student's current identification card and schedule should be enclosed with the statement. Refund and withdrawal eligibility will be based upon the postmarked date on the envelope. This correspondence should be addressed to the Registrar's Office. Withdrawal from Developmental English or Developmental Math courses also requires the instructor's signature.

WITHDRAWAL FROM CLASSES

A student who withdraws from class during the first week of the regular semester will not have those courses recorded on his/her permanent record.

A student who withdraws from classes after the 5th day of the regular and Late Start semester and the end of the eighth week, or after the 3rd day for Summer and Winter Classes, providing there is no violation of academic integrity, will have that withdrawal recorded as a "W" as long as all appropriate forms have been filed.

In order to assist students, the College policy suggests that students withdrawing from class any time before the end of eight weeks must have a counselor/advisor signature on the withdrawal slip. Special Session withdrawal dates may differ.

LATE WITHDRAWAL

Students withdrawing after the eighth week of the regular semester and before the sixteenth week will have a grade of "F" or "UF" recorded on their permanent record UNLESS a late withdrawal form is submitted and accepted by the faculty. The form must be picked up from the Dean of Students' Office, completed by the student and brought to the appropriate instructor(s) for approval or disapproval along with his or her written statement of special appeal based on extraordinary circumstances and with supporting documentation from a physician, employer, attorney, etc. These materials must be returned to the Dean of Student Services. Please be reminded that the statement of personal reasons for appeal will be treated confidentially.

Requesting late withdrawals after the final grades have been assigned by the instructor will be treated under the Grade

Change Policy.

Note that some courses do not run for the traditional 15 or 16-week semester. In all such cases withdrawal without penalty can only be accomplished prior to the dates listed for that semester. Check the course schedule book for exact dates.

A student should also be advised that withdrawal from a required Developmental Mathematics or English course must be approved by their instructor or the Coordinator of Developmental Studies or Chairman of that Department. Withdrawal may constitute a failure to fulfill the requirements established by the Academic Evaluation Committee, and may result in dismissal from any other courses being taken concurrently.

ALL STUDENTS ON FINANCIAL AID OR EOF MUST CLEAR ALL CHANGES WITH THOSE OFFICES.

ATTENDANCE

Students are required to attend classes, laboratories, and clinical sessions for which they are registered. Students are graded according to course objectives and requirements established and distributed by the instructor. While attendance alone cannot be used as a criterion for academic evaluation in any course, the instructor has the prerogative to give or decline opportunities for making up work missed due to absences.

Excessive absence may result in lowering a student's grade. Excessive absence is defined as, with the exception of medically excused absence and religious holidays, more than three cuts in a class that meets three times a week or more than two cuts in a class that meets twice per week. The instructor should be notified of extra-curricular absences prior to missing of class. The application of this policy is left to the individual instructor who, at the beginning of each semester, will announce the specific requirements of his/her course.

The instructor may use the quality of class participation in determining student grades if it has been specified as a requirement of the course at the beginning of the term.

If you are subject to an extended absence (3 or more consecutive days) due to illness, death in the family or legal commitment, contact the academic department secretary.

AUDITING A COURSE

Students may audit courses. These students must register for the course, pay the regular course tuition and fees, and may participate in all course activities, except that they may not be permitted to take examinations in the course, unless approved by instructor. In no case will the student receive a grade for an audited course. Auditors must secure written permission from the instructor within the first five days of their start date if they decide to audit a course. No student may change from audit to credit without written approval from the Vice President of Academic Affairs. Audit is a non-credit grade and an "AU" is printed on the student's academic record upon completion of the course.

COURSE REPEATS

When a student repeats a course, only the higher grade will be averaged in the cumulative average. A student may not repeat a course more than once, including a "W" grade, to improve the grade received initially without special permission from the department chairperson or coordinator.

Repeating a course when a "D" or better grade was previously recorded will not earn additional credits for the course. Only the grade-point average may be improved.

This policy was revised June 1995 and originally took effect in September 1973 and does not apply to courses taken prior to that date.

COURSE WAIVERS

Any requests for course waivers must be approved, in advance, by the departments involved. Courses waived do not appear on the student's transcript. If the waiver involves more than one department, the waiver form requires the signature of both departmental chairpersons/coordinators. After both departments have approved, the request is then sent to the Vice President for Academic Affairs for approval. All waivers are kept on file in the Registrar's Office

GRADING POLICY

The faculty has adopted a college-wide grading policy which requires each instructor to give students a written statement regarding his/her grading policy at the beginning of each academic term. Students who have failed to receive such information prior to the end of the second week of classes should approach the instructor with a special request for a statement outlining the grading policy to be followed.

GRADES

The College uses the following system of grading to indicate on its records the quality of a student's work:

- A . . . Excellent
- B+ . . . Very Good
- B . . . Good
- C+ . . . Above Average
- C . . . Satisfactory
- D+ . . . Below Average
- D . . . Unsatisfactory (lowest passing grade)
- F . . . Failing
- I . . . Incomplete*
- XF . . . Incomplete changed to failing*
- S . . . Satisfactory (for non-credit courses)**
- U . . . Unsatisfactory (for non-credit courses)**
- J . . . "Continuing" Satisfactory Progress
- (Developmental Courses)
- UF . . . Unofficial withdrawal (student ceased to attend; calculated as a failing grade)
- W . . . Official withdrawal
- P . . . Pass (for non-credit courses)**
- AU . . . Audit

* An "Incomplete" grade may be given in cases of illness or extenuating circumstances acceptable to the Instructor only if the student had informed the instructor of the circumstances. A grade reported as "Incomplete" at the end of a semester will be permanently recorded as "XF" if the Incomplete is not removed within the first six weeks of the next regular semester. It is the student's responsibility to make acceptable arrangements with the instructor to complete the course requirements within the period. If the student is unable to contact the instructor, timely notice should then be given to the Department Chairperson.

For those students attending Schools of Nursing, please refer to the School of Nursing Handbook.

** By Departmental Arrangement.

It is the student's responsibility to report an error on his/her grade report to the Registrar's Office within two weeks of receipt of grade report. Otherwise, it is assumed that the grade report is accurate and is recorded permanently on the student's report card.

A student's academic standing is based upon his/her performance in all courses expressed in terms of the "academic average" he/she achieves. In computing this average, the following numerical values are assigned to each letter grade.

Grade	Grade Numerical Value
A+	4
B+	3.5
B	3
C+	2.5
C	2
D+	1.5
D	1
F+	0

Numerical quality points are then determined by multiplying the above values by the number of credit hours which the course carries. For example, a three-credit hour course in which the student receives a B represents 9 quality points earned.

Academic average is determined by dividing the total number of quality points earned by the total number of credits taken, whether passed or failed. The following table is an illustration of this computation:

		Grade & Quality Numerical Points	
Course	Credits	Value Per Course	
HIS 101	3	. . . . .C(2)	. . . . .6
PSY 101	3	. . . . .B(3)	. . . . .9
BIO 111	4	. . . . .D(1)	. . . . .4
FRE 101	3	. . . . .A(4)	. . . . .12
ENG 101	3	. . . . .B+(3.5)	. . . . .10.5
CIS 101	3	. . . . .F (0)	. . . . .0
		. . . . .19	. . . . .41.5
		Total credits taken 19	
		Total quality points earned 41.5	

41.5 divided by 19 results in a 2.18 grade point average.

Grades received in the non-credit preparatory or developmental courses are not included in the computation of averages, but are considered in dismissals or assigning probation by the Academic Evaluation Committee.

GRADE CHANGES

Students seeking grade changes must present their initial appeal to the classroom instructor who awarded the grade. Thereafter, it is the instructor's prerogative to determine whether there is justification for a grade change. If a change is approved, the instructor must secure the required grade change forms from the Registrar's Office, complete them, and forward them to the appropriate administrative offices in order for the grade change to be officially recorded on the student's record. **AT NO TIME SHOULD A GRADE CHANGE FORM BE GIVEN TO A STUDENT.**

PROBATION AND DISMISSAL

Students must have a minimum cumulative Grade Point Average of 2.0 in order to obtain a degree, diploma, certificate, or receive a favorable recommendation from the College. The College realizes, however, the transition to college is difficult for some students. For this reason, a minimum cumulative average which a student must maintain each semester in order to continue at Union County College has been established. Students who fail to maintain the minimum cumulative average will be placed on probation for one semester or will be requested to withdraw if, in the opinion of the Academic Evaluation Committee, they are not benefiting from their college studies.

Students on probation may not carry over 13 semester hours without written approval from the Vice President for Academic Affairs and they may not hold office in any student organizations. Unless such a student shows improvement at the end of the probationary period, he or she will be asked to withdraw from the College. Decisions regarding probation, dismissal, and conditions of re-entrance are made by the Academic Evaluation Committee. The Committee and other College authorities reserve the right to dismiss or request the resignation of a student at any time for poor scholarship, unsatisfactory conduct, or failure to abide by College regulations. The student receives written notification when he or she is placed on probation or is asked to withdraw.

A student who voluntarily withdraws during the semester with a poor scholastic record may be disqualified from reentering the ensuing term. The student receives written notification when the Academic Evaluation Committee disqualifies him or her from reentering. Students placed on probation are expected to maintain a 2.0 average in subsequent semesters and are denied the privilege of holding office in any organization or extracurricular activity. EOF, IELTS, School of Nursing, and New Jersey College of Medicine and Dentistry have their own Academic Evaluation Committee, that make decisions on students. These decisions are provided to the College's Academic Evaluation Committee.

COLLEGE LEVEL EXAMINATIONS (CLEP & AP)

CLEP (College-Level Examination Program®) provides a method of earning college credit by taking examinations in various subject areas. Union County College recognizes CLEP scores and will allow credit in many subject areas when the scores meet the college requirements. Credit will not be given where there is evidence of previous academic work. In addition, Union County College will give **ADVANCED PLACEMENT** credit to students achieving a grade of '3' or higher on Advanced Placement (AP) Tests from the College Board. Each of the College's academic departments will decide which Union County College courses are comparable to the specific Advanced Placement Test. For further information, contact the Admissions Offices' transfer credit evaluation professionals.



ASSESSMENT OF PRIOR LEARNING (APL)

APL provides a method of earning college credit by organizing and submitting a portfolio documenting life experiences and demonstrating the similarity to learning gained through formal college-level education. Credit is awarded only for demonstrated college-level learning, not for experience per se. This learning must be comparable and correspond to UCC courses for which previous credit has not been awarded. Students must adhere to the established College policy regarding academic honesty and integrity per the Student Handbook.

Not more than half the credits required for a degree may be earned through APL combined with other forms of credit options; e.g. CLEP, Challenge Exams, AP tests, transfer, etc. Students must consult with the Assessment of Prior Learning Coordinator for eligibility and requirements. Students must adhere to College policies and procedures.

MEMBERSHIP (RECOMMENDED)

Council on Adult and Experiential Learning (CAEL)

ELIGIBILITY/ RESTRICTIONS

- Student must have completed a minimum of six credits toward a degree
- Student must have a minimum GPA of 2.5
- Student must be currently registered/enrolled in a credit course toward a degree
- Course(s) eligible for assessment must be specified in the student's chosen curriculum
- The combination of "outside evaluation" transfer credits CANNOT exceed 50 percent of the total credits for the degree program (CLEP, Challenge Exams, APL, etc.)
- Student must apply for assessment of prior learning before 33 credits have been earned
- Student must complete all developmental requirements, if applicable, before applying for APL credits
- Once a student attempts a course, the credits for that course cannot be requested for assessment of prior learning
- Some restrictions depend on program requirements; e.g. dental hygiene, nurs-



ing, engineering

- Certain courses may be ineligible for assessment of prior learning due to program requirements
- Courses assessed are limited by the expertise and availability of trained APL faculty evaluators

ACCESS TO STUDENT RECORDS

The academic records of students are kept in the Records Office under the jurisdiction of the Director of Admissions/Records/Registration apart from any disciplinary records, the latter being retained in the office of the Dean of Student Services. Transcripts of academic records contain only information about academic status. The FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT OF 1974 sets forth requirements designed to protect the privacy of students. The act speaks directly to statutes governing (1) access to student records and (2) the release of such records. Union County College has drafted policies and procedures which comply with the intent of this legislation. Students are therefore assured of access to those educational records described under the law and their individual rights of privacy are equally protected by limitation of transferability of such records without their consent.

If you desire information on the established policy and procedures relative to this act you may direct your inquiries to the Record's Office or the Dean of Student Services. A copy of the policy statement is posted on the official "Deans" bulletin board located at each campus.

UNION COUNTY COLLEGE TRANSCRIPTS

All requests for Union County College transcripts of record must be made in writing to the Record's Office of the College a week before the date of issuance. Dates of attendance, social security number, and present address must be included in the request. A fee is charged for each transcript. Students are not entitled to transcripts unless all obligations to the College have been met.



GRADUATION REQUIREMENTS

Students in Business, Computer Science, Liberal Arts, Science, Engineering, Criminal Justice, Human Services, Health Technologies, and their options become eligible for graduation and for the Associate in Arts or Associate in Applied Science degree when they have completed a minimum of 64 semester hours of credit and have met all course requirements of their particular programs of study. The student must also have a minimum cumulative average of 2.00 to be eligible for graduation.

Students in the cooperative programs offered in affiliation with Muhlenberg Regional Medical Center Schools of Nursing, Medical Imaging and Therapeutic Sciences, and Trinitas School of Nursing become eligible for the Associate in Science in Nursing Degree upon completion of the program with a cumulative average of 2.00 (GPA subject to change by School of Nursing). The course requirements for each program are listed under Cooperative Programs with the Schools of Nursing.

Students in the cooperative program offered in affiliation with the University of Medicine and Dentistry of New Jersey (UMDNJ) School of Health Related Professions, become eligible for Associate Degrees and Certificates, upon completion of the program. The Course

Requirements are listed under the Cooperative Program with UMDNJ.

It is the responsibility of students in all programs to ascertain that they have taken all subjects required in their curriculum and that they have sufficient credits each semester to meet the requirements for graduation. Students should meet with an Academic Counselor to review their curriculum prior to completing a graduation application. For the full-time student, the average load is 15 credit hours per semester. The student must make application for the degree three months prior to the expected completion date and pay a non-refundable graduation fee.

Degrees, diplomas and certificates will be officially issued following the conclusion of the Summer Sessions (October), the Fall Semester (January) and the Spring Semester (May). All degree, diploma or certificate recipients are eligible to participate in commencement exercises for the academic year. There is one commencement in May.

Students leaving the College before they complete their program and intending to transfer back credits from another institution toward the program requirements must make sure that they have secured prior written approval from Admissions for the courses that they intend to take and notify the Records Office.

Until the Records Office has cleared the student for graduation, no degree, diploma or certificate will be issued.

Degrees, diplomas or certificates issued will carry the graduation date closest to the date of final clearance.

ADJUSTED GRADUATION AVERAGE

Graduating students may apply to the Vice President for Academic Affairs to have course credits and grades taken before matriculating into their graduation major omitted from the computation of the GPA. Such an adjustment is not automatic and each situation will be judged on its individual merits. This adjustment is not available to students who have been granted academic forgiveness. This policy may not be honored by other Institutions.

ACADEMIC FORGIVENESS

Students who have been absent from the College for two (2) full years, have been readmitted and earned at least twelve (12) credit hours with a 2.0 average or higher on the hours earned after readmission, and who wish to have former grades and credits omitted from the calculation of the grade point average may apply for academic forgiveness to the Vice President for Academic Affairs through an Academic Counselor. The granting of academic forgiveness is not automatic. Each case is judged on its individual merits. Academic forgiveness may be granted only once and is irrevocable. Students interested in academic forgiveness must see a counselor about the ramifications of making such a request. Where military veterans enrolled under federal laws entitling them to educational benefits must repeat courses taken prior to receiving academic forgiveness, those veterans may not receive benefits for retaking those courses. This policy may not be honored by other Institutions.

TRANSFERRING CREDITS

Union County College will cooperate fully to facilitate transfer credit of deserving students. The acceptability of transfer credit depends largely upon the institution involved and the type of program to which the student seeks admission. In accepting transfer students, colleges are guided by such factors as academic ability and their own particular standards. Transfer evaluation forms are available on all campuses in the Admissions Office (see transfer credit in Admissions section).

HONORS

Only matriculated students will be considered for honors. Matriculated students carrying 15 credit hours during one semester are eligible for the Vice President of Academic Affairs List if they attain an average of 3.00 with no grade lower than "C", and for the President's List if they achieve an average of 3.50, with no grade lower than "B". Matriculated students carrying 12 credit hours during one semester are eligible for the Vice President, Academic Affairs List if they attain an average of 3.25 with no grade lower than "C", and for the President's List if they achieve an average of 3.75 with no grade lower than "B".

Matriculated part-time students will be considered for the Vice President, Academic Affairs List if they have earned at least 12 credit hours and have attained a minimum cumulative average of 3.00. Once this minimum is met, part-time students must carry no less than 6 credit hours and attain a semester average of 3.25 with no grade lower than "C" for the Vice President, Academic Affairs List and 3.75 with no grade lower than "B" for the President's List. Students who maintain the above averages throughout the two-year period of their attendance and who meet all other requirements are highly recommended for transfer to four-year institutions to complete requirements for a bachelor's degree.

HONOR SOCIETIES

CHI ALPHA EPSILON

The Psi Chapter of the Chi Alpha Epsilon Academic Honor Society is a national honor society for students in the Educational Opportunity Fund Program. EOF students who hold a 3.0 cumulative GPA for two consecutive full-time semesters are eligible to be members. Its purpose is to promote continued high academic standards, foster increased communication among its members, and honor the academic excellence of those students admitted to college via developmental program pathways.

MU ALPHA THETA

Students with an interest and ability in mathematics are recognized through admission to Mu Alpha Theta. Mu Alpha Theta is a National Honor Society which promotes scholarship in mathematics at two-year colleges. Requirements for admission are 3.5 average of any mathematics course at the MAT-145 or higher level and an overall 3.0 cumulative average, (Students are eligible after one semester).

PHI THETA KAPPA

Students who achieve outstanding scholastic records and demonstrate qualities of good citizenship receive recognition through admission into Phi Theta Kappa. Phi Theta Kappa is the national honor fraternity which aims to promote scholarship, develop character, and cultivate fellowship among men and women students of two-year colleges. Iota Xi is the chapter of Phi Theta Kappa at Union County College. Full-time students who have earned 12-24 credits at Union County College with a cumulative average of 3.50 or 24 or more credits at Union County College with a 3.40 average are eligible for admittance into Iota Xi Chapter.

PSI BETA

Psi Beta is a national honor society in psychology associated with the American Psychological Association. It was founded expressly for community and junior colleges. The purpose of Psi Beta is to promote, encourage, and recognize scholarship for students in psychology. The local chapter encourages member participation in workshops, seminars, conferences, and other educational experiences as well as service to the community. Membership requirements are, at minimum, an overall average of 3.0 and at least one course in psychology with an overall grade of "B" or better in each psychology course.

TAU ALPHA PI

The Omicron Beta Chapter of the Tau Alpha Pi National Honor Society is a national honor society for students in the engineering and engineering technology programs. Students are eligible for membership if they are in the top four percent of their class.

ACADEMIC SUPPORT

LIBRARIES

The Union County College Libraries serve as the major learning resource of the College. Library holdings total more than 130,000 volumes, over 400 periodical subscriptions, and over 2,000 videos and DVDs. In addition, the Libraries provide access to hundreds of full text journals, newspapers and reference sources on CD-ROM and via the Internet. The Library's Web site includes virtual tours, staff information, study guides, instruction modules, and links to dozens of resources that can be accessed on campus or from home.

The Kenneth Campbell MacKay Library on the Cranford Campus contains the major reference and research collections of the College. The libraries on the Elizabeth and Plainfield Campuses serve as the learning resource centers on those campuses, with collections and services geared toward the specific programs offered at those campuses.

The MacKay Library is a three story, 40,000 sq. ft. facility. The building also houses the Tomasulo Art Gallery, the Cranford Campus Academic Learning Center, and the Center for Visual Arts and Communications, including a Television Studio, Radio Station, Photography Laboratory and Studio, Architecture/Graphic Arts Laboratory, Painting and Drawing Studio, classrooms, and faculty offices. The MacKay Library houses over 100,000 volumes, including a children's collection. An electronic instruction room offers hands-on training in the Library's many online resources, including the Internet.

The Kellogg Library at Elizabeth is located in the Lower Level of the eight-story building. The Plainfield Campus Library is located on the Lower Level of the three-story building. Each library provides complete library services and houses over 10,000 volumes.

The Libraries on all campuses are connected through an online catalog and circulation system that indicates location and availability. Students have access to the total holdings of the College Libraries. Materials can be borrowed from or returned to any campus by intercampus delivery on one-day notice. Information can also be transmitted via fax. Interlibrary loan service is available for materials not owned by the Libraries.



Information literacy is a major goal of the Library. Library instruction is carefully geared to support specific course assignments. Instruction is designed to provide an overview of information resources and accessibility, and to develop in students the ability to locate, evaluate and use information resources as life-long learners.

ACADEMIC LEARNING CENTERS

The Academic Learning Centers (ALC) offer tutoring to all UCC students. Through the use of peer, paraprofessional, professional and faculty tutors, help is available in almost every course taught at UCC, with special emphasis placed on high-risk courses. The Learning Centers' computer labs contain state-of-the-art computers and software and computer room tutors are available to assist students.

The ALC's offer many additional resources to UCC students, including biology slides, microscopes, bones and models as well as study materials and help sheets for mathematics and business courses.

Academic Learning Centers are located on all three campuses of UCC. Check with any of the campuses for exact hours of operation and tutoring hours, or visit the ALC website for additional information at www.ucc.edu/academiclearning.

COMPUTING RESOURCES

The Department of Information Technologies (I.T.) provides reliable access to many resources throughout the College for both academic support and administrative office applications. A high-speed fiber-optic backbone is in place on all UCC campuses. High capacity leased lines connect the Cranford, Elizabeth and Plainfield campuses as well as Muhlenberg Regional Medical Center.



This connectivity ensures a high level of availability of technology resources throughout the College.

The computer center, located at the Cranford Campus, is equipped with high-speed server technology to support the needs of students, faculty, and staff members. Microsoft Windows Server has been chosen as the primary server operating system due to its dominance in the academic and administrative application software industry.

Windows XP is available at the desktop in all 43 computing labs, offices, libraries, and Academic Learning Centers. These labs are all supplied with Internet and Internet-2 connectivity through the College's Wide Area Network (WAN) infrastructure, and links with the New Jersey Higher Education Network (NJEDGE). Specialty applications include multimedia and Web development, Computer Aided Drafting/Computer Aided Manufacturing (CAD/CAM), and desktop publishing using industry standard tools. High capacity ZIP and CD-R/W drives are available at all workstations in the labs for saving and transporting important computer files.

Library applications include current CD and Web-based databases such as New York Times and Business and Health Reference. The electronic card catalog is available from any networked desktop computer.

Each student is provided with a network e-mail account. This allows the student to communicate with others, including his/her instructor, electronically. Each network account comes with secure network disk space that is accessible from any networked PC throughout the College. Access to Microsoft application products and over 100 networked laser printers throughout the College, enable the student to use technology as an effective tool in his/her program of study.

Union County College is currently among the leaders in the state in web-based course offerings. Web-based Student Services is available for on-line course registration and credit card payment. The College is active in both the New Jersey Virtual Community College Consortium (NJVCCC) and the New Jersey Virtual University.

Utilizing an electronic system of problem tracking and resolution, the I.T. Department's professional Helpdesk staff provides knowledgeable and timely assistance. A Student Technology Assistant (STA) program is used to support faculty and student needs in computer labs.

The I.T. Department's Faculty/Staff Computer Resource Center is a new technology workplace for faculty and staff. This Resource Center stays abreast of current and new technologies. Training sessions developed specifically for faculty/staff computer needs are offered throughout the year.

STUDENT SERVICES

The mission of the Student Services Offices at Union County College is to give students an orientation to the collegiate setting and to provide resources for support and help while pursuing college goals. Placement tests are administered to identify the level of skill performance in English and Mathematics in order that appropriate initial course assignments can be made. The Records Office keeps track of the cumulative records of courses and credits taken so that academic transcripts can be issued upon request. Counseling Services, special academic support services, Academic Learning Centers, and peer tutors are available to assist students.

A vital part of student life is embodied in the student activities programs open to both full and part-time students at all campuses. Opportunities for participation include recreational, club, cultural, social and intercollegiate athletic activities.

Students are encouraged to familiarize themselves with the services and activities offered by the College. The Student Handbook and other special publications should be consulted for more detailed information on activities and on policies and procedures for which students will be held accountable while enrolled at Union County College. The College provides the following information upon request: Counseling Services Guide, Student Handbook, Public Safety Guide, Motor Vehicle Regulations, Faculty Guide, Assisting Students with Disabilities Brochure, Scholarship Brochure, Transfer Articulation and Dual Admissions Brochure, Harassment Brochure, Crisis Intervention Brochure, Educational Opportunity Fund Brochure, Alcohol and Other Drug Abuse Prevention Program Brochure, Sexual Assault Brochure, Catalog, Student Government Association Club/Organization Information.

COLLEGE REGULATIONS

It is the student's responsibility to read bulletin boards to be informed on posted notices and announcements. Students are also expected to secure a copy of and abide by the rules and regulations set forth in the College Catalog and the Student Handbook.

Alcohol In accordance with the state-mandated legal drinking age requirement of 21 years, the alcohol policy is as follows: No alcohol is permitted on campus for any activities. In addition, alcohol is not permitted at off-campus College-sponsored events.

Drugs Use of drugs on campus and/or at off campus College sponsored events is illegal.

Gambling The College follows state guidelines which prohibit illegal gambling. This includes games that result in any exchange of money.

Smoking The College is smoke-free.

Please refer to the current Student Handbook for a complete listing of student rights and College regulations.

IDENTIFICATION CARD

Students are responsible for securing and maintaining in their possession while on campus a currently validated identification card. The identification card must be presented as authorization for campus presence when requested by College officials. The identification card also serves as the student activity card and the College's library card. New students will be mailed an identification card following the close of registration. Continuing students must have their identification cards validated upon registration for all subsequent semesters. There is no fee for the initial identification card.

COUNSELING SERVICES

Counseling Services offers academic, career, and personal counseling services to Union County College students. Workshops are held during the semester on various topics of interest or importance to students. Counselors are available on all Union County College campuses.

Services include a computerized approach to occupational information and exploration, a personalized vocational testing and assessment program designed for those who are uncertain about their educational or career direction, and individual follow-up career counseling sessions. Employment Placement Services are available to assist students in finding employment while attending school or after graduation.

Academic advisors and professional counselors are available to assist with the comprehensive planning and decision making essential to academic success. Managing a college education requires access to information regarding academic policies and procedures including course and curriculum prerequisites, graduation requirements, Basic Skills Testing, computation of grade-point averages relating to honors or probation, and other support services.

Students interested in transferring are assisted with their selection process. A comprehensive computerized college file, 4 year college catalogs and a transfer resource guide are available to students during the transfer process.

The Student Assistance Counselor offers information, short-term counseling, and referral regarding substance-abuse issues and other personal concerns.

Athletic advising is provided to students involved in intercollegiate sports.

The Coordinator of Services for Students with Disabilities is available to assist students who have documented physical and learning disabilities. These services need to be arranged before the beginning of each semester.



STUDENTS WITH DISABILITIES

UCC offers students with disabilities programmatic access and appropriate academic adjustments for programs, activities, and services. Special parking decals are available through the Office of Public Safety. The Coordinator of Services for Students with Disabilities is available to assist students with these services.

If special assistance is needed, students must complete the accommodation eligibility questionnaire, obtained from the Admissions Office, at the time of application or as soon as possible thereafter. Current documentation regarding the disability is required whenever specific accommodations are requested. The Coordinator offers students the opportunity to ensure effective participation in campus life. However, it is the responsibility of the student to self identify to make his/her needs known. Individuals with concerns regarding accommodation should contact the Coordinator of Services for Students with Disabilities.

STUDENT ACTIVITIES

Together with the Student Government Association, the Student Activities Office sponsors a co-curricular program that offers a wide range of diverse activities on all Union County College campuses. These include entertainment shows, trips, international festivals, lectures, films, and musical programs.

Under the sponsorship of the Student Government Association, a variety of clubs and organizations are offered at Union County College. These clubs and organizations include the student newspaper (The Scroll), the radio station (UCR), the literary journal (SHEAF), a literary magazine (The Foreign Student Voice), and academic, cultural, and social clubs organized by students based on their interest.

All students are invited to participate in the programs offered on the Elizabeth, Plainfield, and Cranford campuses of Union County College. A valid Union County College identification card may be necessary for access.

The Office of the Director of Student Activities is located in the Campus Center Building on the Cranford campus.

If you or someone attending a program or an event with you requires special services, please contact 709-7164 for Cranford campus events, 412-3573 for Plainfield campus events, or 965-6033 for Elizabeth campus events at least two weeks prior to the activity.

INTERCOLLEGIATE ATHLETICS

The College's nationally recognized athletic program offers men's soccer, men's basketball, baseball, women's basketball, and co-ed golf. The College is a member of the competitive Garden State Athletic Conference and Region XIX of the National Junior College Athletic Association. Participation is based on academic standing and athletic ability. The Office of the Director of Athletics is located in the Campus Center Building, Cranford campus.

Union County College's intercollegiate athletic colors are red, white and black. The College mascot is the owl. Admission at home contests is free.

PUBLIC SAFETY

The Public Safety Department has the following responsibilities:

1. Protect the lives and safety of all individuals within the College property.
2. Safeguard College and personal property from theft, damage, vandalism, or misuse.
3. Prevent or control crime on campus.
4. Investigate crime on campus, apprehending offenders when possible and recovering stolen property.
5. Preserve peace and resolve conflicts on campus.
6. Provide an immediate response to emergencies and to all persons requiring aid on campus.
7. Enforce College policies, rules, and procedures.
8. Advance cooperative relationships within the College community and contribute to its public relations program.

Illness or injuries due to accidents, which are incurred on-campus, or during a College-connected activity are to be reported immediately to the Public Safety Office on the campus where they occur. If it is not possible to make an immediate report, one should be made before 48 hours have elapsed. All students are covered under the College's student accident insurance plan.



SAFETY ON CAMPUS

All students are urged not to linger in lightly-traveled areas of the buildings or campus grounds after regular closing hours. If you must complete assignments in remote areas where the campus is in minimum use, you should exercise the following safety precautions: (1) find at least one other person whom you know well to work with - group work would be even wiser; (2) leave the area in pairs or as a group; (3) alert Public Safety in advance that you will be using the area and ask Public Safety to spot-check during your work period and escort you to your car if necessary; (4) leave the building by a common exit that may be closest to the area where you parked your car; (5) if you are waiting for a ride after dark, agree upon a well-lighted pick-up spot; and (6) if you are subjected to harassment or observe someone behaving in a suspicious manner that may jeopardize your safety, report the situation immediately to a Public Safety Officer or your instructor. These are a few simple rules that may prevent the occurrence of an unfortunate situation. Most importantly, you should make yourself familiar with the campus buildings, exits, and general location of the Public Safety force. Please be reminded that you should carry your identification card with you at all times. We are an "open" campus. Stay alert and exercise prudence to insure your personal safety at all times. Should any student, faculty/staff member, or any visitor on the campus become the victim of any crime, report the incident to the Public Safety Department immediately. The following crimes which are reported to the Public Safety Department will immediately be reported to the local Police so that they can conduct the investigation: Murder, Rape, Robbery, Aggravated Assault, Burglary, Motor Vehicle Theft, Liquor Law Violations, Drug Abuse Violations, Weapons Possession. **CAMPUS CRIME STATISTICS WILL BE FURNISHED UPON REQUEST AND ARE DISTRIBUTED TO ALL APPLICANTS.** In compliance with the Federal Campus Sex Crimes Prevention Act, and relevant New Jersey Law, information regarding the enrollment or employment of convicted sex offenders is available from the Union County College Department of Public Safety. Additionally, in compliance with the Student Right to Know and Campus Security Act, crime statistics are reported to the U.S. Department of Education and are available online at <http://ope.ed.gov/security/>

PARKING AND AUTOMOBILE REGISTRATION

Students currently enrolled who intend to use designated parking facilities at Union County College campuses must have their automobiles registered and properly decalated through the Public Safety Office. There is a charge for a decal. Automobiles parked on campus illegally or without proper decals will be ticketed and/or towed at the owner's expense. Parking fines are assessed for parking and traffic violations. Speed zones on Campus are generally set at a maximum of 10 miles per hour. However, students are expected to exercise prudence at all times and heed all posted traffic signs. A complete listing of parking regulations and map of student parking areas can be found in the Student Handbook and the Public Safety Guide.

SUPPORTING ORGANIZATIONS

UNION COUNTY COLLEGE FOUNDATION

The Union County College Foundation was founded in 1977 to raise funds to benefit Union County College students and to support innovative programs. The Foundation provides scholarships, and underwrites lecture series, graduation awards, faculty and staff development, and special College programs.

The Foundation, a non-profit organization, raises funds through special events and contributions from alumni, board members, employees, parents, foundation, business, industry, and friends. Very special friends who demonstrate their commitment by including the Foundation in their wills or estate plans are recognized in perpetuity as members of the UCC Heritage Society.

An elected Board of Trustees manages the Foundation and its endowment. For more information about the Foundation, call the Assistant Secretary, Mrs. Louise Yohalem at (908) 709-7505 or visit the Foundation website at www.uccfoundation.org. The Annual Report is available upon request.



UCC ALUMNI ASSOCIATION

The purpose of the Union County College Alumni Association, a non-profit organization, is to assist in advancing the mission of Union County College, to maintain a continuing relationship between alumni and the College and to strengthen the relationship between the College and the community. The Association hosts social, cultural and educational events and supports Union County College Foundation programs. Any graduate or student with 30 credits or more is eligible to join; annual dues are \$5.00, a lifetime membership is \$125.00. Members can borrow materials from all College libraries. Benefits include a discount in the College bookstores and, for a three-year membership, a special alumni rate at the UCC Fitness Center. About Union, a newsletter for alumni and friends published three times a year, has a section where alumni can "stay in touch". Meetings are held during the second week of the month, September – June.

For more information, call (908) 709-7505 or visit the Foundation House at 995 Springfield Ave. For the calendar of events and more information, visit www.uccfoundation.org.



ADDITIONAL OPPORTUNITIES

JOHN H. STAMLER POLICE ACADEMY

The John H. Stamler Police Academy, Union County's chartered police training institution, is operated by the Union County Prosecutor's Office in cooperation with Union County College and the Union County Police Chief's Association. The Academy's police training facility is located in Scotch Plains. The Academy provides basic training for law enforcement recruits from Union County's municipal police departments and for other law enforcement agencies, under the aegis of the New Jersey Police Training Commission, and in-service training for Union County law enforcement personnel. All students in the Police Academy are registered as students of Union County College with College faculty members designated as Faculty Advisor to the Academy and as coordinators to provide academic oversight. All of the Academy's instructional personnel serve as lecturers of the College. Union County College will award up to twelve (12) college credits to graduates of the Academy's Recruit Training Program, provided they apply to the College and matriculate as criminal justice majors, request advanced standing based on their studies at the Police Academy, and submit a transcript for any work taken at any other institution of higher education.

FIRE SCIENCE TRAINING ACADEMY

In conjunction with its Fire Science Technology Program, Union County College works cooperatively with the Union County Fire Science Training Academy, in Linden, N.J. The Academy, which is a cooperative effort of the Union County Fire Chief's Association and the Union County Firemen's Association, is dedicated to providing training for the firefighting forces of all 21 municipalities in Union County, including both paid and volunteer departments, and assisting in the training of commercial and industrial fire brigades.

The Academy provides a blend of theoretical, practical, and hands-on training and education through a highly-competent, part-time, instructional staff. It is open 52 weeks a year and may be used by all Union County fire brigades. The facility (burn building) is used for all types of simulated firefighting.

Union County College will award up to six college credits to graduates of the Union County Fire Science Training Academy, providing they apply to Union County College and matriculate as fire science technology majors, request advanced standing based on their studies in the Fire Academy, and submit a transcript for any work taken at any other institution of higher education.

THE INTERNATIONAL INSTITUTE

The International Institute of Union County College seeks to prepare students for life and work in an increasingly global society. The Institute, recognizing the impact of global issues on today's economy, will support the curriculum at UCC with initiatives that provide an international and intercultural focus to learning. Participants will develop an understanding of the interconnections among political, social, economic, and cultural forces in our world. The International Institute will foster a sense of global citizenship and will promote projects that globalize the collegiate experience.

The International Institute will serve students and faculty through the following initiatives:

- Educate students about global issues through speakers, discussions, and lectures;
- Promote travel opportunities for cultural enrichment and academic credit;
- Promote study abroad opportunities for students;
- Encourage faculty exchange and study abroad programs for professional development;
- Promote the International Studies option in the Liberal Arts curriculum;
- Encourage inter-departmental cooperation on global and cultural issues;
- Promote service learning and internships with international business, inter-governmental organizations (IGO's), and non-governmental organizations (NGO's) serving the world community;
- Support activities that connect international students to one another and to the UCC community; and
- Serve as a clearinghouse for programs and events concerning international education.

L.I.F.E. (LEARNING IS FOR EVER) CENTER

The L.I.F.E. Center, established in the Fall of 1984, brings college-level academic classes off-campus to senior citizen students at locations and times convenient to them. The classes are free and courses may be taken for college credit, leading to an Associate degree. The instructors are Union County College full-time or adjunct professors and the courses they teach are taken directly from the UCC catalog. This program is unique in the State of New Jersey and was the first of its kind in the United States. Since its inception, thousands of Union County senior citizens have taken advantage of the program.

NJ MARINE SCIENCE CONSORTIUM

Union County College is a member of the New Jersey Marine Science Consortium, which affords students the opportunity to become acquainted with the marine environment through summer credit course offerings. The offerings supplement the science curricula at the College and increase the course options available for students. Students interested in Marine Science Consortium offerings should consult with the Registration Office.

AIR FORCE/ARMY ROTC

Union County College, Rutgers, The State University, and Seton Hall University have an agreement permitting male and female students of Union County College to cross-enroll in the Air Force ROTC program. Qualified students may complete the first two years of the four-year program on a cross-enrollment basis and the final two years by attending an institution sponsoring Air Force ROTC. Students who successfully complete the four-year program earn commissions as second lieutenants. For further information, contact the Admissions Office of Rutgers - The State University or Seton Hall University.

SERVICEMEMBERS OPPORTUNITY COLLEGES (SOC)

Union County College has been designated as an institutional member of Servicemembers Opportunity Colleges (SOC), a group of over 400 colleges and universities providing voluntary post secondary education to members of the military throughout the world. As an SOC member, Union County College recognizes the unique nature of the military lifestyle and has committed itself to easing the transfer of relevant course credits, providing flexible academic residency requirements, and crediting learning from appropriate military training and experiences. SOC has been developed jointly by educational representatives of each of the Armed Services, the Office of the Secretary of Defense and a consortium of thirteen leading national higher education associations. It is sponsored by the American Association of State Colleges and Universities (AASCU) and the American Association of Community and Junior Colleges (AACJC).

DIVISION OF ECONOMIC DEVELOPMENT & CONTINUING EDUCATION

The Division of Economic Development and Continuing Education consists of the Department of Continuing Education, Center for Economic and Workforce Development, and Industry-Business Institute. In 2003, the Division as a unit had 27,000 non-credit enrollments establishing it as the largest non-credit program among the nineteen New Jersey Community Colleges.

DEPARTMENT OF CONTINUING EDUCATION

The Department provides professional development and personal enrichment opportunities for individuals who live or work in Union County. Classes are open to all qualified students, and individuals throughout Central New Jersey and New York take advantage of non-credit opportunities in the Department. Special programs are available in the Department for youngsters and Senior Citizens. These include the Union County Freeholder's Senior Scholars program, College for Kids, and College for Teens. A Continuing Education Schedule is mailed to 220,000 households each semester and contains over 800 course offerings.

As part of its commitment to the concept of lifelong learning, The Department schedules these non-credit continuing education courses and seminars in the evenings, on weekends, and during day-time hours that are convenient for adults. Programs and courses are offered at all four campuses and at extension center locations-Bayway Center in Elizabeth, Roselle Park High School, Roselle Community Center, Union County Police Academy, and the Union County Magnet School. In addition, the Division offers continuing education courses on-line, via the Internet.

Certificate Programs (non-credit) are part of the ongoing continuing education offerings. Currently, the Continuing Education Department offers non-credit certificate programs in Cisco Networking CCNA/CCNP, Management (AMA), Oracle Certified Professional (OCP) Certificate Program, Business Computer Applications, Microsoft Office Professional 2000 or XP, Wireless Networking, LAN Architecture, Six Sigma, Print and Graphics design, Real Estate Sales, Real Estate Brokerage, Real Estate Appraisal, Certified Patient Care Technician (CPCT), American Sign Language, Pharmacy Certified Technician, Medical Office Coding Specialist, Children's Care-Giver Program, Travel and Tourism, Substitute Teacher Specialist, Practical Accounting, Marketing Certificate (AMA), Human Resource Management (AMA), Office Management, How to be a Top-Notch Administrative Assistant, Electronics Technician, Automotive Electrical and Restaurant Management/Culinary Arts, Floral Design, and Interior Design.

The UCC **College for Kids** offers non-credit programs for youth, ages 4-16. During the Fall and Spring semesters, the Department schedules Saturday courses and workshops on a variety of topics such as reading and math enhancement, astronomy, and martial arts as well as creative and visual arts. In the Summer, Continuing Education offers an extensive College for Kids program that serves over 2,300 young students. Also, the Department runs a Summer Sports Spectacular that includes intensive instruction in baseball, soccer, basketball, golf and tennis.

The UCC **College for Teens** is an intensive three week program that provides career planning and leadership skills for teens. This program focuses on careers in main-stay New Jersey businesses such as the Pharmaceutical Industry, and Print and Graphics Industry in Union County.

Continuing Education operates as a **Regional Cisco Networking Academy**. It provides extensive preparation for the Certified Cisco Networking Associate (CCNA) and Certified Cisco Networking Professional (CCNP) designation(s). As a Regional Academy it provides technical and instructional support to local school systems that wish to offer CCNA preparation to their students.

Continuing Education also offers the **New Pathways to Teaching in New Jersey** (NPTNJ) in conjunction with the New Jersey City University. NPTNJ is an alternate route New Jersey teacher certification program. Students are able to obtain 15 graduate credits and New Jersey teacher certification upon completion of the program.

For further information, write or call Department of Continuing Education, Union County College, 1033 Springfield Avenue, Cranford, NJ 07016. (908) 709-7600.

CENTER FOR ECONOMIC AND WORKFORCE DEVELOPMENT

The Center for Economic and Workforce Development provides training and support services to assist unemployed and underemployed to be better positioned in the workforce, and to develop lifelong learning skills. The Center offers a wide variety programs and courses to over 4000 adults each year. The Center model includes universal assessment, counseling, occupational related instruction and job placement.

As part of the CEWD commitment to access for all, instruction is scheduled in the evenings, on weekends, and during daytime hours that are convenient for adults. CEWD classes are headquartered at the Bayway Center in Elizabeth where one will find state of the art computer labs, and a full service operation. Classes are also held on the Elizabeth and Plainfield campuses and at: Roselle Community School, Plainfield One-Stop, Elizabeth Public Library, Project Proceed, the Urban League, and the Elizabeth Housing Authority computer lab.

To accomplish its mission, CEWD offers a wide array of programs and courses:

- Computer Basics is offered extensively in Elizabeth and Plainfield. This program serves as an entry way to CEWD and College degree programs as well as closing the digital divide 1500-2000 adults take this course each year
- Project Able provides ESL, literacy, and GED preparation in partnership with Workforce Advantage and Union County Vocational School to 1,300 adults each year
- Project Liberty focuses on ESL and Citizenship preparation for 250 adults each year
- Project LEARN, a distance learning program, is for unemployed persons to learn Office and employment Skills to obtain a job and continue their education. In Conjunction with Passaic County College, this program serves 210 individuals each year.
- Project Step is for unemployed Youth to obtain a GED and attend Union County College. It serves 40 students.
- Occupational programs offered include: Computerized Office Skills, Computerized software specialist, Project LEARN, Computerized Accounting Clerk, Customer Service Specialist, Computerized Accounting Clerk, ESL Office Skills and Computer Repair Technician
- Job Search Workshops

The Center has an active job placement operation, which operates career days every Thursday as well as comprehensive job fairs at the Bayway location. In addition the Union County College is a One-Stop partner with the County of Union. Thus the Center regularly partners with County Social Services on activities, which result in an overall increase in worker productivity for residents of the County.

For further information write or call the Center for Economic and Workforce Development 12-24 West Jersey Street, Elizabeth, New Jersey 07202-2314 (908) 659-6022.



INDUSTRY-BUSINESS INSTITUTE

The Industry-Business Institute at Union County College develops training solutions to improve overall productivity, reduce cost and strengthen the competitiveness of local business and industry. IBI also provides training for non profit organizations such as school and city employees. Part of the Division of Economic Development and Continuing Education, IBI provides quality, comprehensive and relevant training programs, customized to meet company needs, delivered on-site and scheduled at times that will not interrupt the work day or production schedule. Training is funded either on self pay basis by the company or through customized training grants from the state Department of Labor.

IBI offers the following services:

- ▲ Customized training programs including many in:
 - Computers
 - Supervision & Management
 - Professional Development
 - Business Skills
 - Industrial Maintenance and Manufacturing
 - Workplace Literacy / Basic Skills
 - Quality
 - Safety
- ▲ Assistance in securing NJ Department of Labor training grant funds
- ▲ Training Needs Assessments
- ▲ Consulting
- ▲ Access to UCC computer labs and media services
- ▲ IBI, in partnership with an Advisory Board of local printing companies, also offers three certificate programs and internships for people interested in the Print and Graphics Industry.

As a member of the New Jersey Community College Consortium for Economic and Workforce Development, IBI participates in statewide training projects. IBI also coordinates the Union County College Business and Industry Council in partnership with the Union County College Foundation, which is the gateway that bridges the needs of the business community to the education, training and other resources that can be provided by the Union County College. For more information call 908-709-7678.



THEATER PROJECT

THE THEATER PROJECT, Union County College's Professional Theater Company, produces new works and contemporary classics. An award-winning affiliate member of the New Jersey Theater Alliance, The Theater Project is known for its color-blind casting policy and provocative "actor's view of theater" seating. The audience is on-stage with the actors. In addition to mounting several production each year, the Theater Project sponsors a New Artists' Competition for high school students who are aspiring playwrights and script-in-hand performances of new plays being generated by its Playwrights Workshop for New Jersey-based authors.



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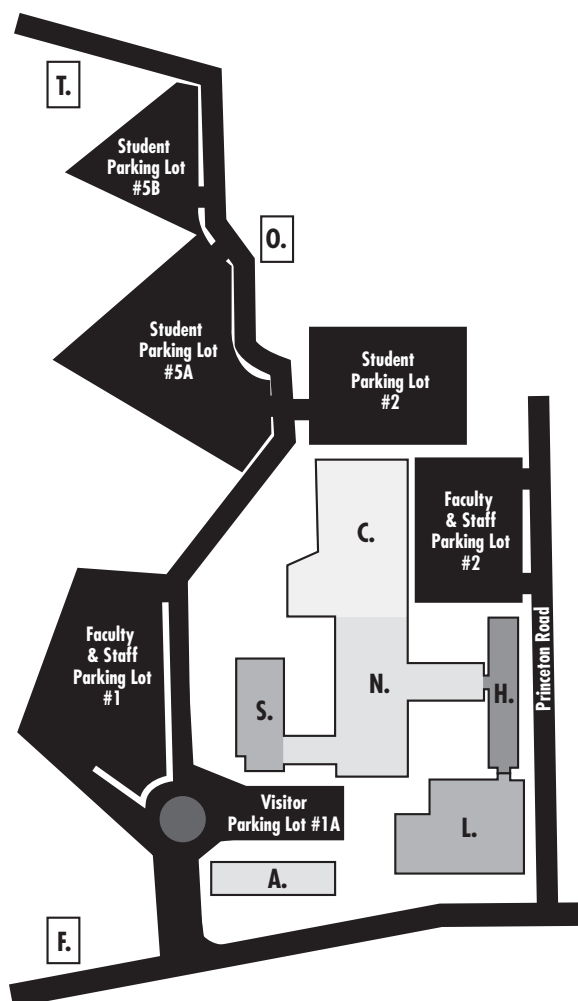
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TELEVISION:

News 12 New Jersey.

PHONE:

You can also receive updated information by calling the College at (908) 709-7000.

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A. MACDONALD HALL

- Admissions • Financial Aid • Recruitment • Student Accounts • Executive Offices

L. MACKAY LIBRARY

- Admiral Stanley Room/Academic Learning Center
- Classrooms/Faculty Offices • Media Center/ITV
- Tomasulo Art Gallery

H. HUMANITIES BUILDING

- Information Technologies • Classrooms/Faculty Offices

S. SCIENCE BUILDING

- North & South Lecture Halls • Classrooms/Faculty Offices

N. NOMEHEGAN BUILDING

- Assessment Center • Computer Labs • Continuing Education • Counseling • Public Safety Office • Alumni Conference Room • Classrooms/Faculty Offices • Main Lecture Hall

C. CAMPUS CENTER & THE COMMONS

- Cafeteria • Seminar Rooms A, B & C • Bookstore
- Roy Smith Theater • Classrooms/Faculty Offices
- Executive Education Center • Facilities Department
- Fitness Center • Gymnasium • Student Activities
- Print Shop • Receiving

O. SPERRY OBSERVATORY

T. TENNIS COURTS

F. UCC FOUNDATION HOUSE

- Alumni Association • Developmental Office
- Industry Business Institute



CRANFORD CAMPUS

1033 Springfield Avenue • Cranford, NJ 07016-1599

From the Garden State Parkway: Exit 137 to Westfield Ave. (Rt. 28). Turn right and take North Ave. (West) to Springfield Ave. (just past the 2nd light) and turn right. The College is 3/4 of a mile on the left.

From Rt. 22 (East or West): Exit at Cranford/Westfield (Springfield Ave.) and proceed towards Cranford. At the fourth light, turn right, continue onto Springfield Ave. for two blocks. The College is on the right.

ELIZABETH CAMPUS

12 West Jersey Street • Elizabeth, NJ 07201

From the Garden State Parkway: Exit 137 to Westfield Ave. (Rt. 28) east to Elmora Ave. Make a right onto Elmora Ave. and go three blocks and make a left onto West Jersey Street. The College is four blocks on the right.

From the NJ Turnpike: Exit at 13A. Take Route 1 & 9 South to East Jersey Street. Make a right on East Jersey Street. Cross Broad Street. The College is one block ahead on the left.



PLAINFIELD CAMPUS

232 East Second Street • Plainfield, NJ 07060-1308

From the Garden State Parkway, NJ Turnpike and Rt. 22: Take Rt. 22 to the Somerset St. Exit in North Plainfield. Take Somerset St. towards Plainfield where it becomes Park Ave. Take Park Ave., and turn left onto Second St. The College is on the right, three blocks from Park Ave. **OR:** Exit Rt. 22 at the Terrill Road exit in Scotch Plains. Proceed two lights south of Rt. 22 to 2nd Street, turn right and follow 2nd Street to the College.

SCOTCH PLAINS CAMPUS

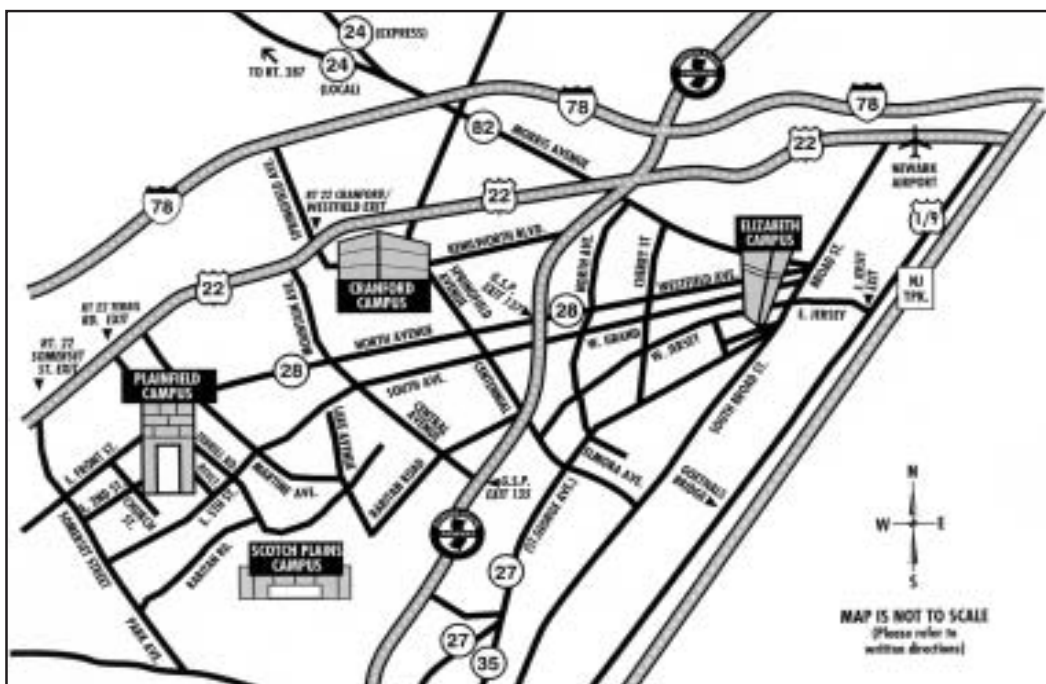
1700 Raritan Road • Scotch Plains, NJ 07076

From the Garden State Parkway: Exit 135 onto Central Avenue towards Westfield. At the first light, make a left onto Raritan Road and go to Lake Ave. Make a right onto Lake Ave. and go to the second light and make a left onto "another" Raritan Road. The College is located in the Union County Vocational Technical School, 1/2 mile on the left.

From Rt. 22 Exit at Terrill Road: Continue for about 3 miles, where it will turn into Raritan Road. Stay on Raritan Road 1/2 mile. The College is located in the Union County Vocational Technical School, 1/2 mile on the left.



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