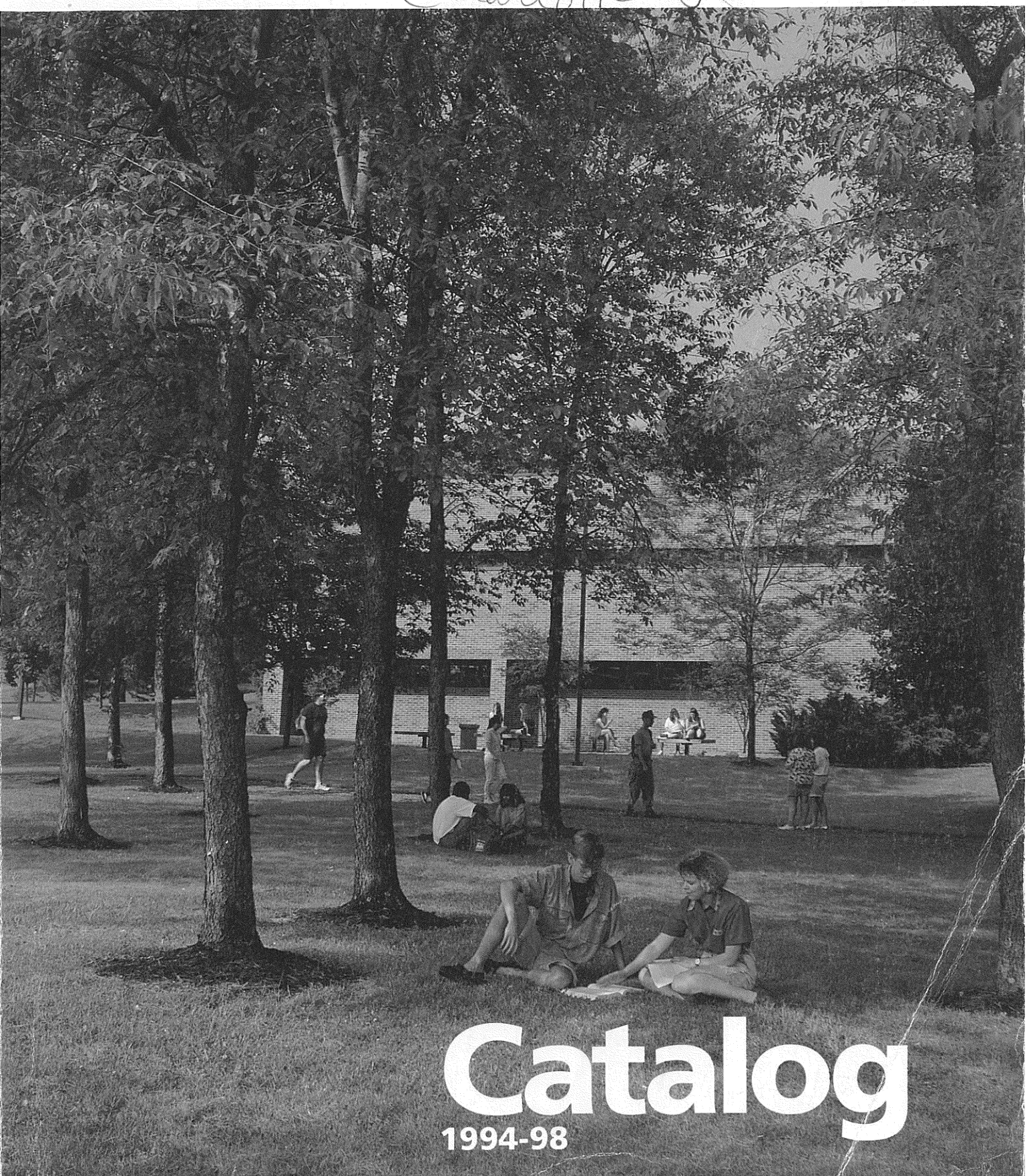
Return to Placement Office
Charlotte Lambert

Hocking College

Nelsonville, Ohio



Catalog

1994-98

3301 Hocking Parkway
Nelsonville OH 45764-9704

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Admission and Financial Aid
1-800-282-4163

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Programs and curricula at Hocking College are reviewed periodically so that our students are prepared for the constantly changing challenges of business and industry. The college reserves the right to change any provision or requirement in this catalog including fees, at any time without prior notice. The information in this publication is not to be regarded as a contract between the student and the college. Students are subject to the requirements in effect at the time they enroll. Current technology curricula may be obtained from the Admission Office.

Hocking College offers equal educational and employment opportunities without regard to race, color, religion, marital status, national origin, sex, age or disability. Hocking College is an equal opportunity institution. Our services and facilities are available to all.

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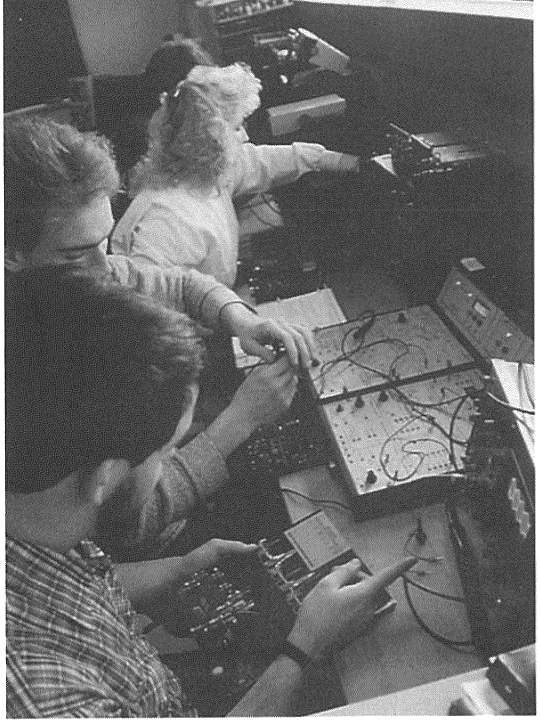
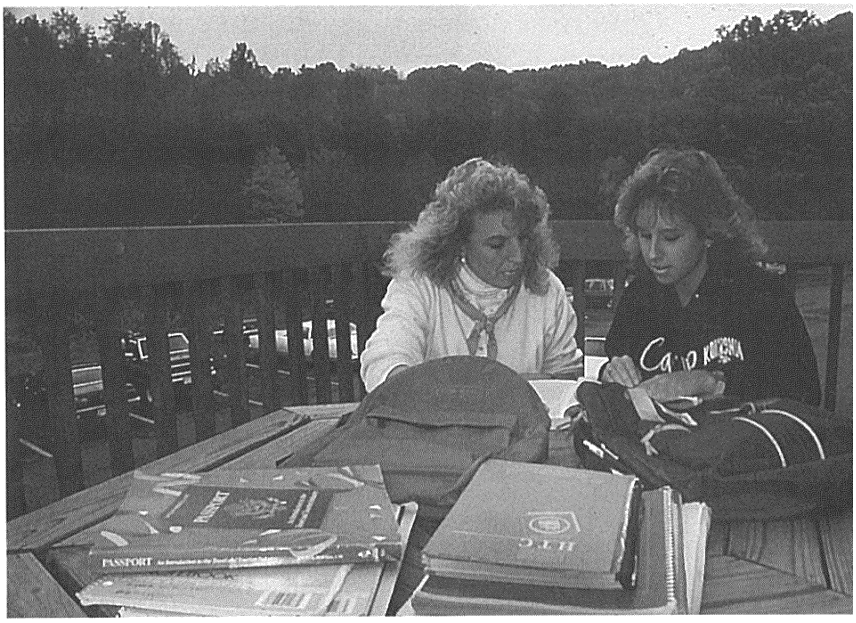
Welcome to Hocking College! All of us at the College take special pride in the excellence of our technical programs and in the natural beauty of our Southeastern Ohio campus. Our greatest source of pride though, is our dedicated faculty and staff who strive to make each student's experience at the College the best possible. Technical education means hands-on learning. State-of-the-art labs and field experiences encourage our students to apply skills to real work situations. Unique facilities such as our Quality Inn Hocking Valley, Uniglobe Travel Agency, Telemarketing Center, Robbins Crossing Interpretive Center and Hocking Woods Nature Center go one step further by serving the public while our students learn. We also maintain close ties with business, industry and public agencies so that our graduates are prepared with the education and training needed by prospective employers. This is an exciting time to be a student at Hocking College. We're responding to today's changing world with innovations that will help you get the most out of your education. We offer you an action-packed, relevant experience in the technology of your choice, with a little fun along the way. We look forward to serving you at Hocking College. We'll show you why we're America's best two-year college.

John J. Light, Ph.D.

President

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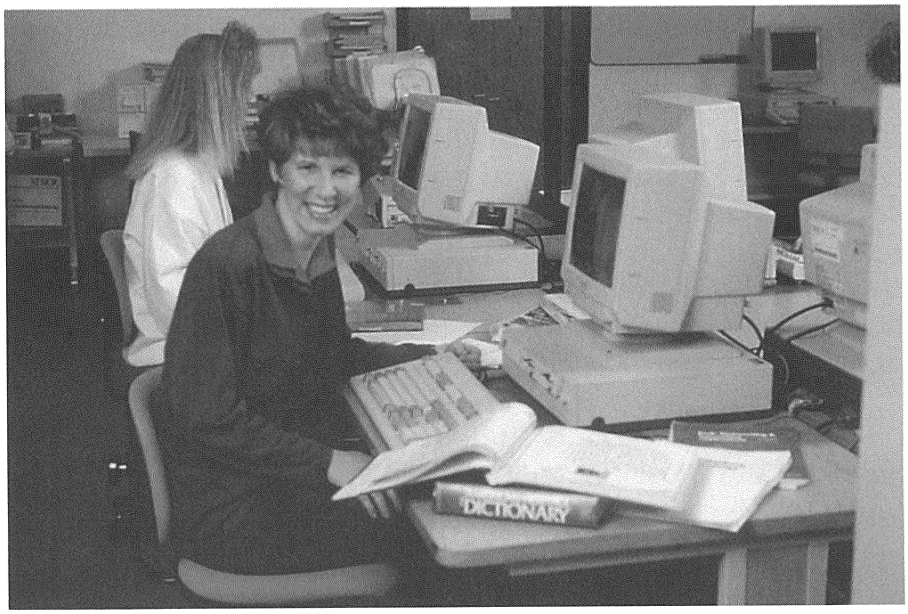

DICTIONARY

The College

Hocking College is a two-year technical college where the accent is on "learning by doing" -- a great place to gain technical knowledge and personal skills for a successful career. Students learn in well-equipped labs and training facilities with an outstanding faculty and staff, whose emphasis is on personal interaction with students. The college is located in Southeastern Ohio near Nelsonville, about 60 miles from Columbus. Our 1400-acre campus is surrounded by the Wayne National Forest. Several state parks are within easy driving distance.

Hocking College offers associate degrees and certificates in more than 30 programs. In addition, it provides the state approved Transfer Module for students planning on transferring to a four year college without earning a degree. Several of the college's technologies were the first two-year programs of their kind either in Ohio or in the nation. HC is the only institution in the world offering a two-year degree in Materials Engineering Technology. The Ceramic Engineering Technology and Compressed Natural Gas programs were firsts in the United States, and the Forestry, Career Ladder Nursing, Human and Correctional Services, Juvenile Corrections, Emergency Medical and Travel and Tourism programs were firsts in Ohio. The Culinary Arts and Hotel/Restaurant Management programs took the lead in hospitality training at the Quality Inn Hocking Valley, a public facility owned and operated by the college.

Programs at Hocking keep up with the constantly changing needs of business and industry. High technology laboratories contain state-of-the-art engineering and computer science equipment and computer assisted drafting systems are part of the Drafting and Design program.

Because of the number of unique technical programs offered at Hocking College, our student body includes people of all ages, backgrounds, geographic origins and interests. Over 6,000 students represent all of Ohio's 88 counties, 20 states and 47 foreign countries.

HC's academic calendar follows a system of four quarters -- fall, winter, spring and summer. Students may enroll in day and evening classes and may choose between traditional classroom and self-paced methods of instruction.

Hocking College believes in itself and its students. Our mission has always been to provide the best and most current technical education not only to our students but also to the communities and industries we serve.

Accreditation

Hocking College is accredited by the North Central Association of Colleges and Schools. In addition to the institutional accreditation, the programs listed below are individually accredited by the indicated agency.

Program	Accrediting Agency
Accounting Technology	Association of Collegiate Business Schools and Programs
Activities Therapy	Approved by the National Certification Council for Activities Professionals
Business Management Technology	Association of Collegiate Business Schools and Programs
Ceramic Engineering Technology	Technology Accreditation Commission of the Accreditation Board of Engineering and Technology
Dietetic Technology	American Dietetic Association Dietary Manager Association Developmental Accreditation by the Council on Education Division of the Accreditation/Approval
Emergency Medical Technology	State Board of Education - EMT-A Ambulance and EMT-Paramedic (EMT-A 502407/EMT-P 5-3-002)
Forestry Technology	Recognized by the Society of American Foresters
Health Information Management Technology	Commission on Accreditation of Allied Health Education Programs on recommendation of the Committee on Allied Health Education on Accreditation
Medical Assistant Technology	Commission on Accreditation of Allied Health Education Programs on recommendation of the Committee on Accreditation for Medical Assistant Education
Nursing Technology Level I and II	Approved by the Ohio Board of Nursing Accredited by the National League of Nursing
Office Administration Technology	Association of Collegiate Business Schools and Programs
Recreation and Wildlife Technology (Fish and Wildlife Major)	North American Wildlife Technology Association

Hocking College is a member of the American Association of Community and Junior Colleges, The Ohio College Association and the National Alliance of Community and Technical Colleges.

College Mission and Goals

Hocking College is dedicated to fulfilling the following mission as part of the Ohio system of technical education: to prepare individuals, in up to two years, for careers as technicians or technologists who will work with skilled craftsmen and professionals. The clear emphasis of technical education is the practical application of knowledge and skills toward the solution of problems in the world of work.

The Hocking College mission is implemented through the following goals:

To provide programs and instruction for the broadest possible range of high school graduates and adults which are relevant to the needs, desires and aspirations of students, industry and local citizens and which are aimed uncompromisingly at successful career employment and personal fulfillment for the individual.

To develop and offer Associate Degree programs in Applied Science and Applied Business which will prepare students for employment as technicians or para-professionals and which are compatible with the needs of industry and individuals of the area served.

To provide training at a level that will permit application and acceptance into a baccalaureate degree program in a technical field if desired.

To work and with other educational institutions to establish an open-ended technical education curriculum which allows students to enter employment or to continue education with a minimum disruption or loss of credit. The Hocking College Trustees urged universities to: recognize the potential of our graduates as students, encourage the development of two-plus-two programs and for the universities to formally adopt systems and procedures that would enable individuals to easily matriculate when they qualify.

To promote a positive attitude toward work, including high standards of personal behavior, character, integrity and self-improvement.

To develop in graduates the technical knowledge, skills and attitudes which will provide for successful job entry performance, continued employment and advancement.

To surround students with an environment of the kind within which they will be employed, encompassing a maximum exposure to other technically competent specialists and equipment closely approximating that in industry.

To provide adequate general education to enable students to intelligently assume the responsibilities of citizenship.

To develop and offer special continuing education programs for occupational advancement, refresher and retraining purposes.

To provide counseling and advisement services to students and citizens which will assist in choosing appropriate courses of study.

To provide a system of instruction which is directed toward meeting the learning requirements and needs of individual students when they need it.

To provide a source of skilled manpower upon which the area may draw for the successful continuation and expansion of technical enterprises.

To provide the faculty, facilities and consultant services for business, industry and the community.

To cooperate and coordinate with area public and private institutions in order to prevent duplication of effort, maximize the resources available to students and faculty and realize the fullest benefits from the tax dollar.

To accomplish all of the above goals in the most efficient and economical manner compatible with quality offerings.

A History of Hocking College

1968	Tri-County Technical Institute opens its doors on the grounds of Tri-County Joint Vocational School.
	Enrollment 234.
1969	Charter received from the Ohio Board of Regents.
1970	Southeastern Ohio School of Practical Nursing transferred to Tri-County Technical Institute.
1971	Board approves construction of a hotel and restaurant.
	6.5 million dollar request for a technical school campus submitted.
1972	Official name changed to Hocking Technical College.
	250 acres purchased for new building and future development.
	College receives first of many grants from the Helene Fuld Health Trust for the nursing programs.
1973	Enrollment 1,055.
1974	College designated as the permanent site of the Paul Bunyan Show.
1975	Hocking College Residence Hall opens on campus.
	PACE program of open-entry/open-exit curriculum adopted.
1976	Ohio-Hocking Forestry Museum established.
1977	Enrollment 2,250.
	Phase II building opens.
1978	$5,059,483 budget approved.

1980 Hotel/Restaurant students work at Lake Placid Olympics.

Sister College relationship established with Hsinpu Junior College of Technology, Taipei, Taiwan, Republic of China.

Sawmill begins operation.

$6,412,240 budget approved.

1981 College awarded 10-year accreditation from North Central Association of Colleges and Schools; accreditation report to be used as national model.

Enrollment 3,240.

1982 Sister College relationship established with Tokyo Metropolitan College of Technology.

College receives Congressional Recognition for tuition scholarship fund created by voluntary staff payroll deduction program.

Five-year, 5.8 million dollar grant under the Strengthening Developing Institutions program received from the U.S. Department of Education.

Satellite receiver downlink dish installed to provide satellite instructional programming and access to national teleconferences.

HTC Charitable Trust enacted.

1983 College's Community Health Education Center designated as national model by Atlanta Center for Disease Control.

$10,200,000 budget approved.

1984 Gittinger Assessment Center established.

Technical Laboratory Building opens.

Bahamas Hotel Training College and Hotel and Tourism Training Center of Rangoon, Burma send staff members for training in curriculum development.

1985 Ceramic Engineering Technology, Forestry, Police Science and Recreation and Wildlife programs receive Program Excellence Awards totaling $523,350 from the Ohio Board of Regents.

Fiscal year-end scholarships and grants to individual students total $1,528,886.

Joint agreement established between HTC and College of Arts, Science and Technology in Kingston, Jamaica for student training.

Ceramic Engineering Technology receives regional U.S. Department of Education Secretary Award for Excellence.

1986 HTC's Telemarketing Center begins serving HTC and businesses with telemarketing services.

Jamaican chefs receive specialized culinary training from HTC's executive chef instructors.

Hocking Woods Nature Center opens.

1987 Over 35,000 tourists enjoy the weekend living history presentation of HTC Interpretive Service students at Robbins Crossing on campus.

The Day Care Connection childcare center opens on campus.

HTC receives $500,000 U.S. Department of Education Facilities Grant.

1988 Enrollment over 4,000.

Nursing Department awarded $65,000 grant under the Academic Challenge program.

Quality International Reservation Center opens on campus.

Student Center opens on campus.

Vehicular Fuels Institute begins operation of national technical services database.

Groundbreaking for Southeastern Probation Treatment Alternative Facility to be built on HTC-donated land.

Ceramic Engineering Technology repeats as Program Excellence Award winner.

1989 International Energy Center opens.

HTC heads state funded consortium to train human services personnel in Ohio's 88 counties.

Ceramic Engineering Technology named one of two outstanding programs in U.S. by National Council of Instructional Administrators.

1990 Satellite campus in Perry County established with 61 students.

Communications program in the General Studies Department receives Program Excellence Grant of $148,800 from the Ohio Board of Regents.

1991 Enrollment over 5,500.

Official name changed to Hocking College.

Hocking College established an External Degree program.

Nursing Department becomes the College's first "school" and is known as the School of Nursing.

1992 Students travel to Europe for first Havering College Student Exchange program.

College acquires 290 additional acres of land adjoining campus bringing total to more than 1,400 acres.

Hocking College is the only college to take part in international horticulture exposition AmeriFlora '92, held in Columbus.

1993 Work begins on $5.9 million Capital Projects including a new building and an addition to the Natural Resources building.

College receives 25 acres of land in Perry County to build permanent structure.

Natural Resources Department becomes School of Natural Resources and Ecological Sciences.

1994 Enrollment over 6000 with a budget of nearly $40 million.

Groundbreaking for Nursing/Health/Learning Resource Center building and Natural Resources building addition.

Groundbreaking for Perry County Center.

Board of Trustees adopts Functional Mission, Hocking College to remain technical in mission.

1995 College anticipates next 25 years and beyond.

Automotive and Energy Technologies

Technical Programs

Programs leading to an Associate Degree:

Automotive Service Management
Compressor

Certificate Programs

Programs providing specific technical skills:

Automotive Service Management
Automotive HVAC and Drivetrain Specialist
Automotive Performance and Diagnostic Specialist
Automotive Service Management Skills
Compressed Natural Gas-Fill Station and Compressor Installation and Maintenance
Compressed Natural Gas-Vehicle Conversion and Safety
Compressor
NGV Compressor Fill Station Specialist
Rotating Compressor Specialist

Automotive Service Management

The Automotive Service Management Technology prepares individuals for careers in the automotive service industry and provides a background sufficient for growth and advancement in the automotive service profession.

The associate degree program in Automotive Service Management addresses the latest trends and advancements in both management techniques and service procedures. Courses include servicing of fuel injection systems, automatic transmissions, antipollution devices, and diagnosis and repair for electronic accessories.

Technical management courses concentrate on the latest market strategies for parts inventory, electronic data storage and retrieval and fleet and dealership activities.

The program also includes training in natural gas fuel technology, the alternative vehicle fuel of the future. Students learn theory, component teardown and installation of natural gas conversion equipment.

Job Opportunities
Graduates are employed as automotive technicians, service managers, shop foremen, sales representatives, parts managers and service station managers.

No.		Course	Credit
AU	101	Automotive Technical Skills	3
AU	110	Automotive Engine Measurement and Skills	5
AU	111	Service Management Orientation	4
MATH	201	College Algebra I	3
COMM	122	Communications II	3
AU	112	Automotive Electrical Systems	4
AU	113	Automotive Fuel Delivery Systems	4
ACC	100	Accounting I	3
MATH	203	College Algebra II	3
COMM	123	Communications III	3
AU	114	Steering, Suspension and Brake Systems	5
AU	115	Automotive Heating, Ventilation and Air Conditioning	4
DD	101	Engineering Drawing I	3
COMM	135	Verbal Career Skills	3
COMM	124	Communications IV	3
AU	206	Auto Powertrain Component	5
AU	216	Alternative Fuels Conversion Systems	5
AU	217	Automotive Electrical Schematics	2
BUS	100	Small Business Management I	3
PSYC	154	Interpersonal Communications	3
AU	201	Automotive On-Board Electronics	4
AU	218	Advanced Automatic Transmissions	5
BUS	101	Small Business Management II	3
COMM	225	Technical Writing	3
SOCI	169	Human Relations In Organizations	3
AU	207	Fleet Management and Supervision	3
AU	215	Automotive Diagnostics and Performance Testing	5
AU	296	Automotive Practicum	3
BUS	200	Business Law	3
EGR	212	Industrial Supervision	3
COMM	104	Job Search Techniques	1

Compressor

The Compressor Technology prepares individuals for careers in the compressor industry and allows for training that provides students with a background sufficient for growth and advancement in the compressor service and repair industry.

The Compressor Technology was developed at Hocking College at the request of industry. Hands-on training with small compressors as well as large industrial compressors weighing up to 25,000 pounds is provided. The program stresses electrical and mechanical concepts so that students thoroughly understand the operation and maintenance techniques necessary for the different kinds of compressors used in industry.

Course work includes technical classroom, laboratory and field work as well as the development of leadership and supervisory skills. The goal of the program is to train students to become competent compressor technicians. Students also have opportunities for summer employment through industrial cooperative programs and college internships.

Job Opportunities
Graduates of the Compressor Technology find employment worldwide. Member companies of the advisory board have global operations and can place graduates in any geographical location. Job opportunities exist as compressor mechanics, salespersons, technicians, field service supervisors and junior engineers.

No.		Course	Credit
CAGS	100	Precision Instruments	3
CAGS	102	Compressed Air Applications	3
CAGS	101	Introduction to Compressed Air Systems	3
HC	114	Standard First Aid	1
MATH	201	College Algebra I	3
COMM	122	Communications II	3
CAGS	110	Reciprocating Compressors I	4
CAGS	111	Compressor Lubricants	2
CAGS	112	Air and Gas Condition	3
MATH	203	College Algebra II	3
MICS	101	Computer Literacy	1
COMM	123	Communications III	3
CAGS	116	Reciprocating Compressors II	4
CAGS	118	Processor Gas Compressors/ Booster	3
BUS	120	Personal Finance	3
CAGS	117	Hydraulics and Pneumatics	3
COMM	124	Communications IV	3
CAGS	200	Rotary Screw Compressors	4
CAGS	201	Compressor Installations	3
CAGS	208	Basic Refrigeration	3
EGR	201	Occupational Safety	3
COMM	104	Job Search Techniques	1
PSYC	154	Interpersonal Communications	3
CAGS	202	Compressor Controls I	3
CAGS	203	Rotary Lube Compressors	4
CAGS	204	Compressed Air System Troubleshooting	3
COMM	225	Technical Writing	3
SOCI	169	Human Relations in Organizations	3
CAGS	205	Compressor Controls II	3
CAGS	206	Centrifugal Compressors	4
CAGS	207	Air System Design	3
EGR	212	Industrial Supervision	3
COMM	130	Speech	3

Business Technologies

Technical Programs

Programs leading to an Associate Degree:

Accounting
Business
  Marketing and Customer Service Major
Culinary Arts
Ecotourism
Hotel/Restaurant Management
Office Administration
  Executive Major
  General Major
Travel and Tourism

Certificate Programs

Programs providing specific technical skills:

Accounting
Accounting and Financial Management Specialization
Accounting Clerk/Payroll Clerk
Accounts Payable/Accounts Receivable
Administrative Transcriptionist
Baking
Bar Management
Business Microcomputer Specialist
Clerk/Basic Typist
Cost Clerk
Culinary Arts
Customer Service Representative
Engineering and Facility Management Specialization
Entrepreneurial Specialist
Executive Housekeeping Management
Federal Taxation
File Clerk
Food and Beverage Management Specialization
General Office Administration
Income Tax Preparation
Individual Taxation
Industrial Salesperson
Institutional Food Preparation
Legal Office Administration

Management Specialist
Marketing and Sales Management
Medical Office Administration
Microcomputer Accounting
Non-Profit Accounting
Personnel Specialist I
Personnel Specialist II
Purchasing Agent
Real Estate
Receptionist/Clerk
Restaurant, Lounge and Banquet Management
Retail Management Specialist
Rooms Division Management
Salesperson
Small Business Accounting Technician
Small Business Specialist
Tourism Assistant
Travel and Tourism
Travel Industry Reservationist
Word Processing

Accounting

The Accounting Technology prepares students for entry-level positions as junior accountants and provides programming to upgrade the skills of persons already employed in the field of accounting.

The Accounting Technology emphasizes practical experience and prepares graduates for entry-level employment in private practice, governmental accounting and private business. Students receive an excellent background not only in bookkeeping but also in payroll, tax, cost and funds accounting plus valuable experience on the college's IBM, Apple and Macintosh microcomputers. Accounting students complete a one-quarter on-the-job practicum as part of their degree.

Second year students experience first-hand learning in area agencies and business.

Job Opportunities
Since accounting is a part of every business, the demand for trained personnel remains high. Graduates are employed in certified professional accounting firms, small business, manufacturing firms and non-profit organizations such as colleges, hospitals and government agencies.

No.		Course	Credit
ACC	120	Payroll Accounting	3
ACC	100	Accounting I	3
ACC	130	Business and Accounting Machines	2
BUS	170	Fundamentals of Business I	3
OAT	180	Keyboarding	1
SOCI	169	Human Relations in Organizations	3
COMM	122	Communications II	3
ACC	101	Accounting II	3
ACC	110	Accounting I Simulation	1
ACC	140	Individual Taxation	3
BUS	171	Fundamentals of Business II	3
BUS	175	Business Word Processing	2
MATH	201	College Algebra I	3
COMM	123	Communications III	3
ACC	102	Accounting III	4
ACC	111	Accounting II Simulation	1
ACC	150	Business Taxation	4
ACC	162	Microcomputer Accounting	2
COMM	130	Speech	3
MATH	203	College Algebra II	3
ACC	200	Basic Cost Accounting	3
ACC	210	Basic Cost Accounting Simulation	1
ACC	220	Non-Profit Accounting I	4
ACC	230	Intermediate Accounting I	3
BUS	245	Lotus 1-2-3 for Business	3
COMM	104	Job Search Techniques	1
PSYC	150	Introduction to Psychology	3
ACC	201	Advanced Cost Accounting	4
ACC	221	Non-Profit Accounting II	4
ACC	231	Intermediate Accounting II	4
BUS	246	Advanced Lotus 1-2-3 for Business	3
ACC	250	Auditing	3
ACC	296	Accounting Practicum	3
BUS	200	Business Law	3
FMGT	140	Principles of Finance	3
COMM	124	Communications IV	3

Business Management

The Business Management Technology prepares students for entry-level career positions as managers and manager-trainees and to own and operate a small business. The Business curriculum offers flexibility to the student who may complete courses in an area of concentration or opt to meet Transfer Module requirements while completing a degree in Business Management. In addition, the Business Management Technology provides programming to upgrade the skills of persons already in the field by offering training packages to meet specific needs.

Graduates in Business Management are prepared to build careers in any phase of business-retailing, wholesaling and manufacturing. Studies range from the basic theories of management and finance through specific applications in labor relations and managerial accounting. Other courses focus on merchandising, economics, marketing and microcomputer software packages.

Second year students experience first-hand learning in area industry, business and agencies.

Job Opportunities
Employment varies from managerial positions in small business to management trainee programs with larger companies. Trainee programs may lead to management positions in sales, merchandising, operations, personnel credit, security and marketing.

No.		Course	Credit
BUS	102	Principles and Practices of Business Management I	3
BUS	110	Marketing	3
ACC	100	Accounting I	3
BUS	105	History of American Business	3
MATH	201	College Algebra I	3
COMM	122	Communications II	3
BUS	100	Small Business Management I	3
BUS	103	Principles and Practices of Business Management II	3
ACC	101	Accounting II	3
BUS	200	Business Law	3
MATH	203	College Algebra II	3
COMM	123	Communications III	3
BUS	101	Small Business Management II	3
BUS	180	Business Ethics	3
ACC	162	Microcomputer Accounting	2
BUS	175	Business Word Processing	2
BUS	201	Advanced Business Law	4
COMM	124	Communications IV	3
BUS	210	Human Resource Management	3
ECON	140	Principles of Microeconomics	4
SOCI	169	Human Relations in Organizations	3
	••	Psychology Elective (Required)	3
	••	Business Elective (Required)	3
BUS	243	Business Systems Control	3
BUS	245	Lotus 1-2-3 for Business	3
BUS	260	Business Planning	2
	••	Business Elective (Required)	9
BUS	246	Advanced Lotus 1-2-3 for Business	3
BUS	296	Business Practicum	2
COMM	104	Job Search Techniques	1
COMM	130	Speech	3
		or	
COMM	135	Verbal Career Skills	3
	••	Business Elective (Required)	9

Business Management
Marketing and Customer Service Major

The Marketing and Customer Service major prepares students for entry-level positions as customer service representatives and administrative assistants in marketing departments and provides students with a background sufficient for growth and advancement in the tele-marketing and customer service profession.

Marketing and Customer Service is a major under the associate degree Business Management Technology. The program emphasizes skills in telephone sales, customer service, telemarketing script writing and information management.

The telemarketing industry is one of the most rapidly growing fields with an enormous demand for qualified professionals.

Job Opportunities
Graduates are employed in a wide variety of business and industrial organizations. Job classifications include entry level and managerial positions in customer service, telephone sales, lead generation and qualification, order processing, promotion management and full account management.

No.		Course	Credit
MCS	120	Customer Service Lab	3
MCS	130	Principles of Customer Service	3
ACC	100	Accounting I	3
BUS	105	History of American Business	3
MATH	201	College Algebra I	3
COMM	122	Communications II	3
BUS	130	Sales I	3
MCS	140	Marketing and Sales Support	3
ACC	101	Accounting II	3
BUS	200	Business Law	3
MATH	203	College Algebra II	3
COMM	123	Communications III	3
BUS	102	Principles and Practices of Business Management I	3
BUS	180	Business Ethics	3
MCS	160	Direct Mail Marketing	3
BUS	175	Business Word Processing	2
BUS	201	Advanced Business Law	4
ACC	102	Accounting III	4
		or	
ACC	162	Microcomputer Accounting	2
COMM	130	Speech	3
BUS	110	Marketing	3
BUS	210	Human Resource Management	3
BUS	245	Lotus 1-2-3 for Business	3
MCS	210	Successful Marketing Campaigns	3
BUS	120	Personal Finance	3
SOCI	169	Human Relations in Organizations	3
BUS	100	Small Business Management I	3
BUS	230	Labor-Management Relations	3
MCS	150	Distribution Management	3
MCS	220	Marketing Management	3
RET	220	Advertising	3
PSYC	150	Introduction to Psychology	3
BUS	246	Advanced Lotus 1-2-3 for Business	3
BUS	285	Human Resource Policy	3
BUS	296	Business Practicum	2
MCS	240	Managing Customer Service Representatives	3
RET	210	Retail Buying	3
COMM	104	Job Search Techniques	1
COMM	124A	Communications IV: Job Communications	3

Culinary Arts

The Culinary Arts Technology prepares individuals for the many entry level positions in the food service industry and provides the student with a foundation for advancement and professional development.

Finding success in the world of fine cuisine is the goal of graduates of the Culinary Arts Technology. By watching, tasting, cooking, studying, and learning from experienced chefs/instructors, students grow in confidence and repertoire. From writing the menu to icing cakes, from selecting fresh seafood to costing the daily special, the student chef does it all. In addition to studying in the classroom, student chefs train in the kitchen of the Quality Inn Hocking Valley. National and international practical experiences are available. It is this blend of hands-on and traditional training which makes Hocking College's professional Culinary Arts Technology unique.

Hocking College's Culinary Arts Technology is a member of the American Culinary Federation Educational Institute.

Job Opportunities
Culinary Arts graduates are prepared for employment in the kitchen of hotels, restaurants, country clubs and resorts around the world.

No.		Course	Credit
CULA	101	Introduction to Culinary Arts	2
CULA	270	Catering	2
HRCA	111	Stocks, Sauces and Soups	3
HRCA	115	Breads and Baking Basics	3
CULA	150	Nutrition in Community Food Service Operations	3
HC	114	Standard First Aid	1
HRCA	110	Safety and Sanitation	2
CULA	105	Pastries and Desserts	3
CULA	201	Culinary Arts Lab I	7
HRCA	112	Salads, Sandwiches and Eggs	3
HRCA	145	Food Product Identification and Purchasing	3
MICS	121	MicroSoft Works (DOS)	3
CULA	106	Meat, Poultry and Seafood Procedures	3
CULA	107	Basic Garde Manger	3
HRCA	113	A La Carte Cookery	3
HRCA	125	Basic Table Service	3
ACC	100	Accounting I	3
COMM	122	Communications II	3
CULA	108	Advanced Garde Manger	3
CULA	212	Culinary Arts Lab II	7
HRCA	116	Hospitality Menu Planning	2
HRCA	241	Festival Catering Management	1
COMM	123	Communications III	3
PSYC	154	Interpersonal Communications	3
CULA	217	Classical and International Cuisine	3
HRCA	117	Hospitality Supervision	3
HRCA	223	Food, Beverages, Labor Cost Control	3
HRCA	231	Serving Alcohol With Care	1
BUS	120	Personal Finance	3
COMM	124A	Communications IV: Job Communications	3
COMM	130	Speech	3
CULA	213	Culinary Arts Lab III	7
CULA	218	American Regional Cuisine	3
HOTR	243	Hotel and Restaurant Law	2
HOTR	263	Facilities Management	2
HRCA	121	Hospitality Ethics	2
COMM	104	Job Search Techniques	1

Ecotourism

The Ecotourism Technology prepares students for entry-level careers in the ecotourism industry and provides a background sufficient for growth and advancement in the profession.

Introduced in the 1980's as a creative strategy for conservation, ecotourism has evolved over the last decade into a massive, global commercial enterprise. "Ecotourism is environmentally responsible travel and visitation to enjoy and appreciate nature that promotes conservation, has low visitor impact and provides for the beneficially active socioeconomic involvement of local populations" (Hector Ceballos-Lascurain, Head of the Ecotourism Consultancy Program for The World Conservation Union). Students in Hocking's Ecotourism Technology study natural and ecological sciences, interpretive/tour guide services, hospitality, tourism and business.

Job Opportunities
Graduates are employed in private and public ecotourism sites including positions in national parks, environmental and community education centers (zoos, museums, aquariums, nature centers), resort and lodge operations and the tourism industry.

No.		Course	Credit
GS	120	Orientation to American Life	3
REC	150	Introduction to Interpretation	2
NR	121	Zoology	3
REC	134	Environmental Issues	3
MATH	201	College Algebra I	3
COMM	122	Communications II	3
	••	Elective (Required)	3
REC	115	Interpretive Methods	3
TRAV	152	Introduction to Ecotourism	2
NR	120	Botany	3
COMM	123	Communications III	3
	••	Elective (Required)	3
TRAV	160	Tour Development	3
BUS	170	Fundamentals of Business I	3
MCS	130	Principles of Customer Service	3
REC	132	Geology	3
COMM	124A	Communications IV: Job Communications	3
COMM	225	Technical Writing	3
	••	Elective (Required)	3
NR	171	Natural Areas Management	2
NR	185	Resource Area Planning	3
REC	123	Cartography	2
ACC	100	Accounting I	3
	••	Elective (Required)	3
REC	217	Aquatic Ecology	3
SUPR	235	Supervision and Leadership	3
	••	Natural Resources Elective (Required)	3
	••	Hospitality Elective (Required)	3
HOTR	275	Resort Management and Development	3
REC	209	Terrestrial Ecology	3
REC	237	Self Guided Interpretive Activities	2
	••	Elective (Required)	6
HOTR	170	Marketing Small Properties	3
HRCA	114	Food Management	3
HUM	203	Ethics, Values and Morality	3
REC	234	Archaeology	3
	••	Elective (Required)	3
	••	Interpretive Elective (Required)	3
NR	298	Natural Resources Internship	6

Hotel/Restaurant Management

The Hotel/Restaurant Management Technology prepares students for careers in the hospitality field and provides students with a foundation for advancement and professional development.

Hotel/Restaurant Management students begin the program learning basic hotel and restaurant skills and progress to management training. Students gain practical experience while serving the public at the Quality Inn Hocking Valley. This College owned training facility includes an indoor pool, guest rooms, a 160 seat dining room, bar and banquet rooms for up to 800 guests.

Supervised co-op programs are available at various hotels and restaurants in the U.S. and abroad.

Hocking College's Hotel/Restaurant Management Technology is a member of the American Hotel and Motel Association Educational Institute.

Job Opportunities
Graduates of this two-year program are employed in entry level positions and beginning management positions with nationally recognized and independent hotels, restaurants and private clubs.

No.		Course	Credit
HOTR	223	Hotel Restaurant Lab 5A	5
HRCA	120	Hospitality Security	1
HRCA	230	Food and Beverage Services	3
HRCA	240	Festival Catering Production	1
HOTR	120	Introduction to Hospitality Industry	2
HRCA	111	Stocks, Sauces and Soups	3
MICS	121	MicroSoft Works (DOS)	3
HOTR	224	Hotel Restaurant Lab 5B	5
HRCA	231	Serving Alcohol With Care	1
ACC	100	Accounting I	3
HRCA	110	Safety and Sanitation	2
HRCA	121	Hospitality Ethics	2
HC	114	Standard First Aid	1
COMM	122	Communications II	3
	••	Hotel/Restaurant Elective	3
HOTR	225	Hotel Restaurant Lab 5C	5
HOTR	241	Front Office Operations	3
HOTR	243	Hotel and Restaurant Law	2
PSYC	154	Interpersonal Communications	3
COMM	123	Communications III	3
	••	Hotel/Restaurant Elective	
HOTR	170	Marketing Small Properties	3
HOTR	226	Hotel Restaurant Lab 5D	5
HOTR	260	Merchandising and Sales	3
HRCA	108	Hospitality Human Resources	2
HRCA	223	Food, Beverages, Labor Cost Control	3
HRCA	112	Salads, Sandwiches and Eggs	3
HOTR	227	Hotel Restaurant Lab 5E	5
HOTR	140	Accounting for Hospitality Services	3
HOTR	242	Supervisory Housekeeping	2
HRCA	117	Hospitality Supervision	3
COMM	104	Job Search Techniques	1
COMM	124A	Communications IV: Job Communications	3
HOTR	228	Hotel Restaurant Lab 5F	5
HOTR	263	Facilities Management	2
HRCA	224	Lounge and Beverage Management	2
HRCA	264	Budgeting for Hospitality	3
COMM	130	Speech	3
	••	Social Science Elective (Required)	3

Office Administration Executive Major

The Office Administration Technology prepares students for entry-level career positions as office administrative assistants who are capable of supervising other clerical employees. The Executive Major prepares students for entry-level career positions as office administrative assistants. It features Gregg shorthand courses. In addition, it provides programming to upgrade the skills of persons already employed in the office field.

The Office Administration Technology offers an extensive background in office management techniques, word processing, Apple and IBM microcomputer applications, electronic telephone techniques and shorthand. Students may choose one of two options, each leading to an associate of applied Business degree.

During the sixth quarter, students complete a practicum where they are placed in an office two days each week for hands-on experience.

Job Opportunities
Graduates are employed as administrative assistants, word processing specialists, transcriptionists, typists, stenographers and executive, legal and medical secretaries.

No.		Course	Credit
OAT	100	Beginning Typing	3
OAT	103	Collegiate Secretarial International I	0.5
OAT	107	Telephone Skills	1
OAT	110	Office Administration I	3
OAT	130	Beginning Shorthand	3
MATH	201	College Algebra I	3
OAT	190	Pretranscription Skills	2
COMM	122	Communications II	3
OAT	101	Intermediate Typing	3
OAT	111	Office Administration II	3
OAT	114	Office Administration Machines	1
OAT	131	Intermediate Shorthand	3
OAT	135	DisplayWrite IV	3
COMM	101	Spelling Skills	1
COMM	123	Communications III	3
OAT	102	Advanced Typing	3
OAT	113	Office Administration Computer System	1
OAT	132	Advanced Shorthand	3
ACC	100	Accounting I	3
MICS	122	MicroSoft Works on the MAC	3
COMM	102	Vocabulary Skills	1
COMM	124	Communications IV	3
OAT	104	Collegiate Secretarial International II	0.5
OAT	200	Introduction to Transcription	3
OAT	210	WordPerfect	3
OAT	220	Office Administration III	3
ACC	120	Payroll Accounting	3
BUS	170	Fundamentals of Business I	3
COMM	135	Verbal Career Skills	3
OAT	230	Administrative Transcription	3
BUS	120	Personal Finance	3
BUS	200	Business Law	3
BUS	245	Lotus 1-2-3 for Business	3
MICS	201	Desktop Publishing: IBM	2
COMM	104	Job Search Techniques	1
OAT	260	Administrative Typing	3
OAT	296	Office Administration Practicum	3
COMM	130	Speech	3
PSYC	150	Introduction to Psychology	3

Office Administration General Major

The Office Administration Technology prepares students for entry-level career positions as office administrative assistants who are capable of supervising other clerical employees. The General Major prepares students for entry-level career positions as office administrative assistants. It features computer courses and personal shorthand. In addition, it provides programming to upgrade the skills of persons already employed in the office field.

The Office Administration Technology offers an extensive background in office management techniques, word processing, Apple and IBM microcomputer applications, electronic telephone techniques and shorthand. Students may choose one of two options, each leading to an associate of applied Business degree.

During the sixth quarter, students complete a practicum where they are placed in an office two days each week for hands-on experience.

Job Opportunities
Graduates are employed as administrative assistants, word processing specialists, transcriptionists, typists, stenographers and executive, legal and medical secretaries.

No.		Course	Credit
OAT	100	Beginning Typing	3
OAT	103	Collegiate Secretarial International I	0.5
OAT	107	Telephone Skills	1
OAT	110	Office Administration I	3
BUS	170	Fundamentals of Business I	3
MATH	201	College Algebra I	3
OAT	190	Pretranscription Skills	2
COMM	122	Communications II	3
OAT	101	Intermediate Typing	3
OAT	105	Introduction to Personal Shorthand	3
OAT	111	Office Administration II	3
OAT	114	Office Administration Machines	1
OAT	135	DisplayWrite IV	3
COMM	101	Spelling Skills	1
COMM	123	Communications III	3
OAT	102	Advanced Typing	3
OAT	113	Office Administration Computer Systems	1
OAT	106	Advanced Personal Shorthand	3
		or	
BUS	171	Fundamentals of Business II	3
ACC	100	Accounting I	3
MICS	122	MicroSoft Works on the MAC	3
COMM	102	Vocabulary Skills	1
COMM	124	Communications IV	3
ACC	162	Microcomputer Accounting	2
OAT	104	Collegiate Secretarial International II	0.5
OAT	200	Introduction to Transcription	3
OAT	210	WordPerfect	3
OAT	220	Office Administration III	3
ACC	120	Payroll Accounting	3
COMM	135	Verbal Career Skills	3
OAT	230	Administrative Transcription	3
BUS	120	Personal Finance	3
BUS	200	Business Law	3
BUS	245	Lotus 1-2-3 for Business	3
MICS	201	Desktop Publishing: IBM	2
COMM	104	Job Search Techniques	1
OAT	260	Administrative Typing	3
OAT	296	Office Administration Practicum	3
COMM	130	Speech	3
PSYC	150	Introduction to Psychology	3

Travel and Tourism

The Travel and Tourism Technology prepares students for entry-level careers in the travel industry and provides students with a background sufficient for growth and advancement in the profession.

People are constantly on the move in today's busy world. With increased business and leisure travel and the growing importance of tourism to the economy, professionals in the field of travel and tourism are in demand. Students study computerized airline reservations, destination geography, tour planning and directing, and sales and marketing. They may also participate in hands-on experiences at the college owned Uniglobe Hocking Hills Travel Agency, conventions and visitors bureaus, and throughout the state of Ohio assisting the Ohio Division of Travel and Tourism.

Hocking College's Travel and Tourism Technology is a member of the American Society of Travel Agents.

Job Opportunities
Graduates are employed with travel agencies, bus tour companies, airlines, hotels and car rental agencies.

No.		Course	Credit
TRAV	101	Festival Operations	1
TRAV	150	Introduction to Travel Industry	3
TRAV	154	Travelogue Central U.S.A.	3
TRAV	190	Exploring Ohio	2
BUS	175	Business Word Processing	2
COMM	130	Speech	3
PSYC	154	Interpersonal Communications	3
COMM	122	Communications II	3
TRAV	155	Travelogue Eastern U.S.A.	3
TRAV	160	Tour Development	3
MATH	201	College Algebra I	3
MCS	130	Principles of Customer Service	3
LANG	120	Beginning Spanish	3
COMM	123	Communications III	3
TRAV	156	Travelogue Western U.S.A.	3
TRAV	191	Promoting Ohio	2
HC	105	Defensive Driving	1
MICS	200	Apple Software Packages	3
COMM	124	Communications IV	3
TRAV	131	Airline Reservations	3
TRAV	201	Festival Management	1
TRAV	264	Hawaii, Alaska and Canadian Provinces	3
TRAV	265	Mexico, Caribbean, Central and South America	3
TRAV	280	Tour Directing	3
BUS	100	Small Business Management I	3
RET	220	Advertising	3
ACC	100	Accounting I	3
TRAV	266	European Travel	3
TRAV	267	Self Directed Learning in Travel	2
TRAV	270	Intermediate Reservations	3
TRAV	110	Travel Agency Office Procedures	3
		or	
TRAV	281	Concierge	3
HC	114	Standard First Aid	1
PSYC	150	Introduction to Psychology	3
TRAV	157	Exploring Asia and the Pacific	3
TRAV	177	Advanced Reservations	3
TRAV	250	Sales for Travel	3
TRAV	260	Convention and Seminar Management	2
TRAV	296	Travel Industry Practicum	2
BUS	200	Business Law	3

Engineering and Science Technologies

Technical Programs

Programs leading to an Associate Degree:

Broadcast Engineering and Production Technology
Ceramic Engineering Technology
Computer Science
Drafting and Design
Electronic Engineering Technology
Industrial Engineering Technology
Materials Engineering Technology
    Industrial Plastics Major *

Certificate Programs

Programs providing specific technical skills:

Basic Drafter
Broadcast Production
Electronics Level I
Electronics Level II
Electronics Level III
Microcomputer Software Packages
Microcomputer Specialist

* New Program - Contact the Admission Office at 1 800-282-4163, extension 2162 for more information.

Broadcast Engineering and Production Technology

The Broadcast Engineering and Production Technology prepares individuals for careers in the broadcast industry and related fields such as radio, television, audio and video production and engineering. It also provides students a background sufficient for growth and advancement.

The Broadcast Engineering and Production Technology provides training in all aspects of broadcast engineering and production. Students will develop skills necessary to design and install a broadcast production facility, operate equipment and perform routine preventative and minor corrective maintenance.

Students operate and maintain equipment in the College's broadcasting studio.

Job Opportunities
Students graduate with a broad range of skills that allows them employment possibilities in different industries and areas of specialization. Employment locations include radio stations, television stations, commercial production facilities, colleges, hospitals, law enforcement agencies, cable companies and satellite and broadcasting networks.

No.		Course	Credit
BC	108	Modern Electronic Media	3
EE	119	Electronic Communication I	4
EE	118	Electricity for Engineers	4
MATH	201	College Algebra I	3
COMM	122	Communications II	3
BC	109	Media Techniques	3
EE	120	Electronic Communication II	4
EE	109	Electronics I	4
EGR	209	Digitial Logic I	4
COMM	123	Communications III	3
BC	110	Studio Production	3
EE	122	Electronic Communication III	4
EE	115	Electronics II	4
MATH	202	Geometry and Trigonometry	3
COMM	124	Communications IV	3
BC	201	Audio/Video Systems I	4
BC	210	Audio/Video Production I	3
EE	215	Fundamentals of Microprocessors	4
EGR	103	Physics II	3
MATH	203	College Algebra II	3
BC	209	Audio/Video Systems II	4
BC	215	Audio/Video Production II	3
BC	216	Transmission Systems	4
COMM	225	Technical Writing	3
MATH	204	College Algebra III	3
BC	223	Equipment Maintenance	4
BC	230	Advanced Post Production	3
BC	280	Current Topics and Technology	3
BC	296	Broadcasting Practicum	3
EGR	212	Industrial Supervision	3
COMM	104	Job Search Techniques	1

Ceramic Engineering Technology

Two-time recipient of the Ohio Board of Regents Program Excellence Award and recipient of the U.S. Department of Education Secretary's Award.

The Ceramic Engineering Technology prepares students for entry-level career positions as process technicians, development technicians, or production supervisors in ceramic and related industries and provides a background sufficient for growth and advancement within the chosen area of study.

Hocking College's Ceramic Engineering Technology is the only two-year technical program in the nation to offer associate degree level training for the ceramic industry. The program prepares students for work in an industry which manufactures a wide variety of products ranging from brick, tableware and glass to super-conductors and high tech ceramics. In well-equipped production and technical laboratories students receive hands-on training to process and test materials and products for the ceramic industry.

Job Opportunities
Ceramic Engineering Technology graduates find positions as assistant plant or lab managers, production and kiln supervisors, process and quality control technicians or supervisors, research and development technicians, and technical salespersons.

No.		Course	Credit
CER	101	Ceramic Mineral Systems: Development and Procurement Methods	3
CHEM	100	Introduction to Chemistry	3
MATH	201	College Algebra I	3
BUS	120	Personal Finance	3
COMM	130	Speech	3
COMM	122	Communications II	3
CER	102	Ceramic Materials and Processes I	4
DD	101	Engineering Drawing I	3
CHEM	120	Chemistry for Ceramics	3
MATH	202	Geometry and Trigonometry	3
COMM	123	Communications III	3
CER	103	Ceramic Materials and Processes II	3
CER	104	Combustion I	3
DD	104	Introduction to AutoCAD	1
DD	105	AutoCAD Applications	2
EGR	103	Physics II	3
MATH	203	College Algebra II	3
COMM	124	Communications IV	3
CER	201	Combustion II	4
CER	210	Glasses, Glazes and Enamels	4
EGR	106	Introduction to Electricity	4
MATH	204	College Algebra III	3
MICS	110	Micro Operation and BASIC Programming	3
CER	206	Ceramic Industry Practices	3
CER	208	Technical Laboratory	3
EGR	210	Control Systems I	3
MATH	205	Introduction to Calculus	3
COMM	104	Job Search Techniques	1
COMM	225	Technical Writing	3
CER	203	Statistical Quality and Process Control	4
CER	207	Standard Procedures	3
CER	209	Industrial Projects	2
EGR	212	Industrial Supervision	3
EGR	213	Control Systems II	3
SOCI	169	Human Relations in Organizations	3

Computer Science

The Computer Science Technology prepares students for entry level career positions as information systems specialists and computer operators and provides a background sufficient for growth and advancement in the management information systems profession.

The Computer Science Technology offers students hands-on experience using state-of-the-art equipment including broad band and local area networks. Students write application programs in six programming languages: COBOL, RPG, Assembler, Basic, Microsoft C and Powerhouse, (a fourth generation language). Commercial software packages including spreadsheet, word processing and database for both DOS based and Apple microcomputers are part of the curriculum. Students also gain experience in uploading and down-loading information to mainframes.

Job Opportunities
Hocking College Computer Science graduates are employed as data entry operators, computer operators, entry level programmers, programmer analysts, systems analysts, team managers, microcomputer specialists and systems software trainers.

No.		Course	Credit
CS	100	Program Analysis I	3
CS	120	Introduction to Data Processing	3
MICS	110	Micro Operation and BASIC Programming	3
ACC	100	Accounting I	3
MATH	201	College Algebra I	3
OAT	180	Keyboarding	1
COMM	122	Communications II	3
CS	101	Program Analysis II	3
CS	110	Introduction to COBOL	5
MICS	143	WordStar	1
ACC	101	Accounting II	3
CS	155	Applied Statistical Packages	3
		or	
MATH	203	College Algebra II	3
COMM	123	Communications III	3
CS	111	Advanced COBOL	5
CS	140	Job Control and Utilities	3
MICS	141	Lotus 1-2-3	1
BUS	170	Fundamentals of Business I	3
COMM	124	Communications IV	3
COMM	130	Speech	3
		or	
COMM	135	Verbal Career Skills	3
CS	200	Introduction to Networking	2
CS	240	Database Management	3
CS	270	Technical Manuals Usage	2
CS	271	Forms Management Systems	2
MICS	121	MicroSoft Works (DOS)	3
		or	
MICS	200	Apple Software Packages	3
BUS	171	Fundamentals of Business II	3
	••	Social Science Elective B (Required)	3
CS	125	Computer Numbering System	1
CS	210	Programming in C	4
CS	213	Applications in Structured COBOL	4
MICS	142	dBase IV	1
COMM	104	Job Search Techniques	1
	••	Business/Accounting Elective (Required)	3
CS	220	Programming in RPG	5
CS	250	Basic Assembler Language	3
CS	275	Fourth Generation Language and Prototyping	4
SOCI	169	Human Relations in Organizations	3
	••	Social Science Elective A (Required)	3

Drafting and Design

The Drafting and Design Technology prepares students for entry level positions in the drafting and design profession and provides a foundation for further development, advancement and education.

Drafting and Design offers a comprehensive program to prepare students for entry level positions as drafters and detailers. Students are exposed to many industrial-related areas through courses in materials, processes of manufacturing, architecture and surveying. Extensive practice in the drafting labs allows students to refine design techniques through classes in all aspects of drawing. Extensive computer assisted drafting (CAD) experience is included, representative of actual situations in the work place.

Job Opportunities
Graduates are employed at mechanical, electrical, electronic, aeronautical, structural and architectural drafting firms. Employers also include federal, state and local governments, colleges, universities and non-profit organizations.

No.		Course	Credit
DD	101	Engineering Drawing I	3
DD	208	Introduction to CAD	1
EGR	108	Manufacturing Process I	3
MATH	201	College Algebra I	3
SOCI	169	Human Relations in Organizations	3
COMM	122	Communications II	3
DD	102	Engineering Drawing II	3
EGR	109	Manufacturing Process II	3
EGR	102	Physics I	3
MATH	202	Geometry and Trigonometry	3
OAT	180	Keyboarding	1
COMM	123	Communications III	3
DD	103	Engineering Drawing III	3
EGR	110	Manufacturing Process III	3
EGR	103	Physics II	3
MATH	203	College Algebra II	3
PSYC	150	Introduction to Psychology	3
COMM	124	Communications IV	3
DD	200	Architecture I	4
DD	206	Graphics	4
EGR	106	Introduction to Electricity	4
NR	123	Surveying and Mapping I	3
DD	204	Descriptive Geometry	3
DD	201	Architecture II	3
DD	202	Advanced Drafting/CAD	4
DD	203	Electrical Drawing	3
DD	210	Geometric Tolerancing and Dimensioning	2
MATH	204	College Algebra III	3
COMM	104	Job Search Techniques	1
COMM	225	Technical Writing	3
DD	205	Die Design	3
EGR	201	Occupational Safety	3
EGR	212	Industrial Supervision	3
EGR	213	Control Systems II	3
EGR	214	Introduction to Robotics	3
BUS	120	Personal Finance	3

Electronic Engineering Technology

The Electronic Engineering Technology prepares individuals for entry-level careers in the electronics industry in areas such as manufacturing, industrial sales, field service, and electronic repair and provides students with a background sufficient for growth and advancement.

Electronic Engineering Technology offers a comprehensive program to prepare students for work as installation, repair, field service and maintenance technicians. Students are exposed to many industrial-related areas through courses in basic electronics, electronic communication, robotics and industrial control. Students learn to install, operate and troubleshoot computer systems and networks. Extensive hands-on laboratory and practical classroom applications prepare the student for an entry-level position in the field of electronics. Additionally, graduates are prepared to meet changes in the industry as the state of the art advances.

Job Opportunities
Graduates are employed in all areas of the electronic industry. Jobs are plentiful in industries that use electronics for control purposes, such as Goodyear, General Electric, ITT Automotive and others. Employment opportunities also exist in the computer networking field.

No.		Course	Credit
EE	119	Electronic Communication I	4
DD	207	Electronic Drawing	3
EE	118	Electricity for Engineers	4
MATH	201	College Algebra I	3
COMM	122	Comunications II	3
EE	120	Electronic Communication II	4
EE	109	Electronics I	4
EGR	209	Digital Logic I	4
MATH	202	Geometry and Trigonometry	3
COMM	123	Communications III	3
EE	122	Electronic Communication III	4
EE	123	Electronic Applications	2
EE	262	Digital Logic II	4
EE	115	Electronics II	4
COMM	124	Communications IV	3
DD	101	Engineering Drawing I	3
EE	215	Fundamentals of Microprocessors	4
EE	230	Linear IC's	4
MICS	110	Micro Operation and BASIC Programming	3
MATH	203	College Algebra II	3
EE	227	Current Topics and Technologies	5
EE	225	Industrial Electronics I	4
EE	226	Electronic Certification	3
EE	258	Robotics and Computers	3
COMM	104	Job Search Techniques	1
COMM	225	Technical Writing	3
MATH	204	College Algebra III	3
BC	223	Equipment Maintenance	4
DD	208	Introduction to CAD	1
EE	228	Industrial Electronics II	4
EE	296	Electronics Practicum	3
BUS	120	Personal Finance	3
EGR	212	Industrial Supervision	3

Industrial Engineering Technology

The Industrial Engineering Technology prepares technicians for entry-level positions in the manufacturing industries.

The Industrial Engineering Technology prepares students to become productive employees able to contribute to industry in areas of production, process planning, maintenance and quality control. Typically, industrial technicians are involved in the efficient use of people, materials and machines needed to produce goods and services.

This program is offered at the Hocking College Perry County Campus. Cooperative work experiences are available.

Job Opportunities
Graduate opportunities include line supervisor, production manager, cost analyst, production designer/analyst, process analyst, quality control analyst and work standards technician.

No.		Course	Credit
EGR	108	Manufacturing Process I	3
MATL	100	Materials Fundamentals	2
EGR	115	Environmental and Safety Fundamentals	2
MATH	201	College Algebra I	3
MICS	110	Micro Operation and BASIC Programming	3
COMM	122	Communications II	3
DD	101	Engineering Drawing I	3
EGR	109	Manufacturing Process II	3
EGR	102	Physics M	3
MATH	202	Geometry and Trigonometry	3
SOCI	169	Human Relations In Organ.	3
COMM	123	Communications III	3
CER	203	Statistical Quality and Process Control	4
DD	104	Introduction to AutoCAD	1
DD	105	AutoCAD Applications	2
EGR	110	Manufacturing Process III	3
EGR	103	Physics II	3
MATH	203	College Algebra II	3
PSYC	150	Introduction to Psychology	3
DD	102	Engineering Drawing II	3
EGR	106	Introduction to Electricity	4
EGR	220	Work Measurements	3
EGR	221	Industrial Engineering Cost Analysis	3
EGR	223	Production Planning and Inventory Management	4
DD	103	Engineering Drawing III	3
EGR	210	Control Systems I	3
EGR	214	Introduction to Robotics	3
EGR	222	Plant Layout and Materials Handling	3
MATH	204	College Algebra III	3
COMM	124	Communications IV	3
EGR	213	Control Systems II	3
EGR	224	Tool and Die Design	3
EGR	225	Engineering Industrial Projects	2
EGR	212	Industrial Supervision	3
COMM	225	Technical Writing	4
ECON	140	Principles of Microeconomics	4

Materials Engineering Technology

The Materials Engineering Technology prepares students for entry-level career positions as development or process technicians in metals, advanced ceramics, polymers, or related industries and provides a background sufficient for growth and advancement.

Materials Engineering Technology at Hocking College offers associate degree level training for high technology industries producing advanced materials. The program combines training in metals, ceramics, polymers, and composites. It prepares students for work ranging from manufacturing automotive parts to developing fiber optic systems to testing materials for aerospace applications. Students learn to process materials under simulated production conditions and use modern analytical equipment to evaluate material properties to meet specific requirements or conditions.

Job Opportunities
Materials Engineering Technology graduates are in demand for entry-level career positions as specialists to perform materials research and testing, to develop products and manufacturing processes, and to control production processes and quality.

No.		Course	Credit
DD	101	Engineering Drawing I	3
EGR	115	Environmental and Safety Fundamentals	2
MATL	100	Materials Fundamentals	2
CHEM	100	Introduction to Chemistry	3
MATH	201	College Algebra I	3
MICS	143	WordStar	1
COMM	122	Communications II	3
CER	102	Ceramic Materials and Processes I	4
DD	104	Introduction to AutoCAD	1
MATL	103	Polymers I	3
CHEM	140	Chemistry for Materials	3
MATH	202	Geometry and Trigonometry	3
MICS	141	Lotus 1-2-3	1
COMM	123	Communications III	3
CER	103	Ceramic Materials and Processes II	3
CER	104	Combustion I	3
MATL	102	Metals I	3
MATL	111	Polymers II	3
MATH	203	College Algebra II	3
COMM	124	Communications IV	3
EGR	106	Intoduction to Electricity	4
MATL	110	Metals II	3
EGR	103	Physics II	3
MATH	204	College Algebra III	3
COMM	225	Technical Writing	3
MICS	110	Micro Operation and BASIC Programming	3
CER	203	Statistical Quality and Process Control	4
EGR	210	Control Systems I	3
MATL	200	Microscopy Analysis of Materials	3
MATL	205	Composite Compositions	3
COMM	104	Job Search Techniques	1
COMM	130	Speech	3
CER	207	Standard Procedures	3
CER	209	Industrial Projects	2
EGR	213	Control Systems II	3
MATL	210	Material Processing Systems	3
EGR	226	Industrial Environmental Issues	3
		or	
EGR	227	Statistical Applications in Industry	3
BUS	170	Fundamentals of Business I	3
SOCI	169	Human Relations in Organizations	3

General Studies

Communications

Recipient of the Ohio Board of Regents Program Excellence Award.
The Communications area of the General Studies department prepares students to be competent readers, writers, speakers and thinkers. It strives to impart those qualities which will enable students to adapt to changes in their work environments to keep up with technological changes, and/or to further their educational qualifications by pursuing a four-year degree.

The Communications area offers a full selection of classes which focus on reading, writing and speaking skills. These classes range from fundamental and developmental classes to advanced classes. The area presents classes in both traditional and PACE modes, including courses offered in departmental computer labs.

English Support Program

The English Support Programs prepares international students to speak, read, write and listen at a language level which is sufficient for successful achievement in all technical and general classes. Students receive intensive English courses on levels appropriate for their language needs. Language instruction and experiences occur not only in classrooms but also in the Learning Resources Center and Transition Center.

Social Sciences

This area, reflecting the changing needs of society and the technologies, prepares students with skills that increase human and societal understanding and awareness, promote civic responsibility and strengthen intercultural understanding. The Social Sciences area provides courses that allow for individual differences in learning styles and interests. Courses include psychology, sociology, economics, humanities and other related areas.

Transfer Module

Hocking College recognizes the value of providing a program for students who want to pursue a bachelor degree at a four-year college or university. The Transfer Module is designed to provide a guaranteed transition for students transferring to other public Ohio colleges and universities.

The Hocking College Transfer Module meets requirements of the Ohio Board of Regents; it will be accepted at Ohio state subsidized colleges and universities.

Hocking's Transfer Module program includes 54 to 60 quarter hour credits of introductory courses in the areas of English composition, mathematics, arts and humanities, social and behavioral sciences and natural and physical sciences.

English Composition

(minimum of 9 credit hours)

Required:

COMM	122	Communications II	3
COMM	123	Communications III	3

Choose the remaining 3 credit hours from the following:

COMM	124	Commuications IV	3
COMM	225	Technical Writing	3
COMM	250	Business Correspondence	3

Mathematics

(minimum of 3 credit hours)

MATH	205	Introduction to Calculus	3

Arts/Humanities

(minimum of 9 credit hours)

HUM	200	Introduction to World Literature	3
HUM	201	Western Civilization and Culture	3
HUM	202	Understanding and Appreciating Theater Art	3
HUM	203	Ethics, Values and Morality	3

Social and Behavioral Sciences

(minimum of 12 credit hours)

Required:

PSYC	150	Introduction to Psychology	3
SOCI	160	Introduction to Sociology	3

Choose the remaining 6 credit hours from at least two of the following areas:

Sociology

SOCI	161	Sociology of Family	3
SOCI	162	Social Issues	3
SOCI	165	Cross Cultural Studies	3

Psychology

PSYC	151	Developmental Psychology	3
PSYC	152	Abnormal Psychology	3

Government

GOVT	142	Interaction with Government and Politics	3

Economics

ECON	140	Principles of Microeconomics	4
ECON	141	Principles of Macroeconomics	4

Natural and Physical Sciences

(minimum of 9 credit hours)

CHEM	100	Introduction to Chemistry	3
CHEM	130	Fundamentals of Chemistry	4
EGR	102	Physics I	3
EGR	103	Physics II	3
HC	100	The Human Organism	3
HC	110	Anatomy and Physiology I	3
HC	120	Anatomy and Physiology II	3
HC	247	Microbiology	4
NR	120	Botany	3
NR	121	Zoology	3
REC	132	Geology	3

Health Careers Technologies

Technical Programs

Programs leading to an Associate Degree:

Dietetic
Health Information Management
Massage Therapy
Medical Assistant
Nanny
Nursing Level I - Practical Nursing
Nursing Level II - Associate Degree Nursing
Physical Therapist Assistant *

Certificate Programs

Programs providing specific technical skills:

Activities Therapy
Dietary Manager
Electrocardiograph Technician
Medical Assistant
Medical Transcriptionist
Practical Nursing

* New Program - Contact the Admission Office at 1 800-282-4163, extension 2162 for more information.

Dietetic

The Dietetic Technology prepares individuals for entry-level careers as dietetic technicians and dietary managers and provides students and graduates with opportunities for advancement and professional development.

Dietetic Technology students complete a combination of academic preparation and supervised practice culminating in an associate degree. Students study a wide variety of topics focusing on food, nutrition, science and management. Students may complete a one year study plan and receive a Dietary Manager Certificate approved by the Dietary Manager Association. The associate degree program is approved by The American Dietetic Association and students completing this degree are eligible to take the registration examination for dietetic technicians.

Job Opportunities
Job opportunities are available in hospitals, nursing homes, medical and home health centers, school systems, retirement centers, correctional facilities, health care management companies and community nutrition programs.

No.		Course	Credit
DT	100	Survey of Dietetics	1
DT	101	Dietetic Directed Practice I	2
DT	102	Basic Nutrition	4
HRCA	110	Safety and Sanitation	2
OAT	180	Keyboarding	1
COMM	122	Communications II	3
MATH	201	College Algebra I	3
DT	103	Food Preparation Principles	3
DT	106	Food Production Management	3
DT	111	Dietetic Directed Practice II	2
DT	120	Normal and Modified Menu Planning	3
HC	100	The Human Organism	3
HC	102	Health Promotion Elective	1
		or	
HC	149	Stress and Stress Management	1
DT	110	Applied Nutrition	3
DT	119	Food Purchasing for Health Care Institutions	3
DT	121	Dietetic Directed Practice III	2
DT	122	Supervision in Dietetics	3
HC	101	Medical Terminology I	3
COMM	123	Communications III	3
DT	200	Diet Therapy I	3
DT	202	Nutrition Care Process	1
DT	205	Dietetic Directed Practice IV	2
HRCA	223	Food, Beverages, Labor Cost Control	3
HC	110	Anatomy and Physiology I	3
MICS	121	MicroSoft Works (DOS)	3
		or	
MICS	200	Apple Software Packages	3
COMM	130	Speech	3
DT	210	Diet Therapy II	3
DT	212	Nutrition Education Methods	3
DT	215	Dietetic Directed Practice V	2
DT	230	Management of Quantity Food Systems	3
HC	120	Anatomy and Physiology II	3
COMM	104	Job Search Techniques	1
SOCI	160	Introduction to Sociology	3
SOCI	169	Human Relations in Organizations	3
DT	220	Current Topics in Dietetics	2
DT	225	Dietetic Directed Practice VI	3
HC	106	Cardiopulmonary Resuscitation for the Professional Rescuer	1
HC	202	Community Health	3
COMM	225	Technical Writing	3
PSYC	150	Introduction to Psychology	3

Health Information Management

The Health Information Management Technology prepares individuals for entry level careers as health information management technicians in health care facilities and provides graduates with opportunities for advancement and professional development.

The Health Information Management Technology prepares students to manage paper or compute databases; review, retrieve and retain medical records; code diseases and operations; prepare records to be microfilmed; abstract information; complete statistics; assist health care professionals; tabulate data from records for research; supervise the day-to-day operation of the health information department; respond to subpoenas and take records to court; and transcribe various medical reports.

Job Opportunities
Graduates are employed in a variety of health care facilities. Employment opportunities include acute care hospitals, nursing facilities, home health, hospice, ambulatory health care, chemical dependency facilities, industrial clinics, state and federal health agencies, long-term rehabilitation facilities, insurance companies, health research organizations and law firms.

No.		Course	Credit
HC	101	Medical Terminology I	3
HIM	100	Health Information and Health Agency Orientation	3
HC	100	The Human Organism	3
OAT	180	Keyboarding	1
COMM	150	Punctuation and Grammar	2
PSYC	154	Interpersonal Communications	3
COMM	122	Communications II	3
HC	111	Medical Terminology II	3
HIM	110	Health Records and Procedures I	3
HIM	112	Health Information and the Law	3
HC	110	Anatomy and Physiology I	3
MICS	121	MicroSoft Works (DOS)	3
OAT	100	Beginning Typing	3
HIM	121	Health Records and Procedures II	3
HIM	202	Computer Applications in HIM	1
HC	114	Standard First Aid	1
HC	120	Anatomy and Physiology II	3
MICS	112	Introduction to DOS	1
MICS	142	dBase IV	1
OAT	210	WordPerfect	3
HC	102	Health Promotion Elective	1
PSYC	150	Introduction to Psychology	3
HIM	120	Basic Coding Elements	3
HIM	201	HIM Directed Practice I	4
HC	130	Basic Pathology	2
PSYC	152	Abnormal Psychology	3
SOCI	169	Human Relations in Organizations	3
COMM	123	Communications III	3
HC	121	Medical Transcription	3
HIM	200	Health Statistics	3
HIM	203	Applied Concepts of Coding	3
HIM	211	HIM Directed Practice II	4
HIM	215	Interpreting Diagnostic Data	2
COMM	124	Communications IV	3
HC	220	Personnel Supervision	3
HIM	212	HIM Quality Control	2
HIM	220	Planning for Health Information Services	3
HIM	221	HIM Directed Practice III	4
HIM	222	CPT Coding	3
COMM	104	Job Search Techniques	1

Massage Therapy

The Massage Therapy program prepares students for licensure as a massage therapist through the Ohio Medical Board.

This program is a two-year part-time program in which classes meet two evenings per week. Students complete courses in human anatomy and physiology and in the theory and practice of massage methodology. Completion of business and general courses leads to an Associate of Technical Studies.

Job Opportunities
The profession of massage therapy is one of the fastest growing careers in the nation. Graduates of the Massage Therapy program are often self employed and many massage therapists work from the home. Some work in offices with other health care professionals or in clinics with other massage therapists.

No.		Course	Credit
HC	122	Swedish Massage	2
HC	100	The Human Organism	3
HC	123	Fascia and Joint Release	2
HC	110	Anatomy and Physiology I	3
HC	124	Healing Through the Human Energy Field	2
HC	120	Anatomy and Physiology II	3
HC	270	Massage Techniques	2
HC	271	Anatomy and Physiology Principles	5
HC	272	Massage Theory	3
HC	273	Musculoskeletal System/ Massage Therapy	2
HC	274	Massage: Professionalism and Ethics	3
HC	275	Movement Analysis	1
HC	276	Craniosacral Release	1
HC	277	Massage Laboratory Practice	1

Medical Assistant

The Medical Assistant Technology prepares individuals for entry-level careers in ambulatory health care settings such as medical offices and clinics and provides students with a background sufficient for growth and advancement in the medical assisting profession.

Medical assistants are qualified to handle office management and clinical responsibilities under the direction of a physician. The curriculum combines general and specialized courses to provide multi-skilled health care training. Students learn office management skills such as computerized medical office management, coding and insurance as well as clinical skills such as vital signs measurement, assisting with patient examinations and laboratory testing.

Job Opportunities
Graduates are employed in medical offices and clinics. Multi-competent skills of the medical assistant allow some graduates to enter advanced fields of employment such as medical office management, health care supervision and specialized health care technology.

No.		Course	Credit
HC	101	Medical Terminology I	3
MA	100	Basic Clinical Assistant Procedures	4
MA	102	Medical Office Procedures I	2
HC	100	The Human Organism	3
OAT	100	Beginning Typing	3
OAT	190	Pretranscription Skills	2
HC	102	Health Promotion Elective	1
		or	
HC	149	Stress and Stress Management	1
HC	111	Medical Terminology II	3
MA	110	Family Practice Clinical Assistant Procedures	4
MA	112	Medical Law, Confidentiality and Ethics	3
MA	122	Medical Office Procedures II	2
HC	110	Anatomy and Physiology I	3
MA	113	Nutrition for MA	3
MA	120	Obstetrics, Gynecological, Pediatric Clinical Assisting Procedures	4
MA	121	Medical Insurance and Coding	1
HC	120	Anatomy and Physiology II	3
OAT	101	Intermediate Typing	3
NT	104	Pharmacology Math	1
PSYC	150	Introduction to Psychology	3
COMM	122	Communications II	3
MA	200	Advanced Clinical Assisting Procedures	5
MA	202	Pharmacology for MA	4
MA	203	MA Externship I	4
HC	106	CPR for the Professional Rescuer	1
HC	107	First Aid for the Professional Rescuer	1
PSYC	151	Developmental Psychology	3
HC	121	Medical Transcription	3
MA	204	MA Externship II	4
MA	222	Financial Records and Reports	3
MA	221	Medical Management Computerization	4
COMM	123	Communications III	3
MA	205	MA Externship III	4
MA	220	Medical Laboratory Procedures	5
MA	223	Computer Applications in Medical Assisting	3
COMM	104	Job Search Techniques	1
COMM	124	Communications IV	3

Nanny

The Nanny program prepares students for employment as nanny or child care providers in private homes or child care centers.

Hocking College offers a three quarter child care certificate program. This program has been reviewed and evaluated by faculty from the Nursery Program at Havering College, Essex, England. In addition, the Academy is a member of the International Nanny Association. Students receive clinical experience in approved child care centers, Head Start sites, preschool programs and in selected private residences. Students are introduced to several professional organizations which provide them with continued support through their careers.

Students may pursue an Associate of Technical Studies which includes business and/or dietetic and general courses.

Job Opportunities
Graduates of the Nanny Academy work as nannies in private residences or child care providers in child care centers and preschools. Responsibilities include planning and implementing care for children ages birth through eight. Demand for nannies and child care providers is expected to remain strong through the year 2000. Available positions exist most often in urban areas.

No.		Course	Credit
HC	160	Child Care Clinical I	2
HC	250	Creative Activity for Children	3
DT	102	Basic Nutrition	4
HC	100	The Human Organism	3
COMM	122	Communications II	3
PSYC	150	Introduction to Psychology	3
HC	161	Fundamentals of Child Care	3
HC	162	Child Care Practicum II	2
HC	163	Pediatric Emergencies	1
HC	105	Defensive Driving	1
HC	106	CPR for the Professional Rescuer	1
HC	114	Standard First Aid	1
PSYC	162	Child and Adolescent Development	4
SOCI	161	Sociology of Family Living	3
HC	164	Dynamics of Child Care	3
HC	165	Child Care Practicum III	2
DT	103	Food Preparation Principles	3
COMM	123	Communications III	3
COMM	135	Verbal Career Skills	3
PSYC	140	Issues in Child Development	4

Nursing Level I
Practical Nursing

The School of Nursing meets the educational needs of individuals who wish to enter the nursing profession or to advance their nursing skills to meet the health care needs of the extended community.

The Nursing program incorporates classroom, laboratory and clinical experiences. Hospitals and health care agencies within 75 miles of Nelsonville serve as clinical experience sites. The program is approved by the Ohio Board of Nursing and is accredited by the National League for Nursing.

The nursing program at Hocking College is a career ladder program. The first year is a Practical Nursing program which is also the first year of the Associate Degree Nursing program. Practical Nursing graduates are eligible to take the national council licensure examination to become licensed practical nurses, and they may apply for admission to the Associate Degree portion of the program.

Job Opportunities
Graduates are employed in hospitals, nursing homes, clinics, physicians' offices, public and community health agencies and as private duty nurses.

No.		Course	Credit
NT	100	Fundamentals and Gerontological Nursing	3
NT	101	Nursing Clinical Experience I	4
NT	102	Nursing Dynamics I	1
HC	100	The Human Organism	3
NT	103	Nutrients	1
PSYC	150	Introduction to Psychology	3
NT	110	Fundamentals/Maternal-Newborn Nursing	3
NT	111	Nursing Clinical Experience II	4
NT	112	Nursing Dynamics II	1
NT	114	Pharmacology for Nurses: Introduction and Drug Administration	1
HC	110	Anatomy and Physiology I	3
NT	113	Lifespan: Nutrition	1
NT	120	Nursing of the Adult	3
NT	121	Nursing Clinical Experience III	4
NT	122	Nursing Dynamics III	1
NT	123	Nutritional Care I	1
NT	124	Pharmacology for Nurses: Drug Classification I	1
HC	120	Anatomy and Physiology II	3
PSYC	151	Developmental Psychology	3
NT	130	Nursing of the Adult and Child	3
NT	131	Nursing Clinical Experience IV	4
NT	132	Nursing Dynamics IV	1
NT	134	Pharmacology for Nurses: Drug Classification II	1
HC	130	Basic Pathology	2
HC	131	Fluids and Electrolytes	1
NT	133	Nutrition Economics	1
PSYC	152	Abnormal Psychology	3

Nursing Level II
Associate Degree Nursing

The School of Nursing meets the educational needs of individuals who wish to enter the nursing profession or to advance their nursing skills to meet the health care needs of the extended community.

The Nursing program incorporates classroom, laboratory and clinical experiences. Hospitals and health care agencies within 75 miles of Nelsonville serve as clinical experience sites. The program is approved by the Ohio Board of Nursing and is accredited by the National League for Nursing.

In Level II, graduates of the Hocking College Practical Nursing program are joined by licensed practical nurses from other schools who have met the admission requirements and have successfully completed an enrichment quarter. Together, these two groups complete the associate degree requirements. Graduates are eligible to take the national council licensure examination to become registered nurses.

Job Opportunities
Graduates of the associate degree program are employed in hospitals, nursing homes, clinics and community health agencies and as private duty nurses.

Enrichment

No.		Course	Credit
HC	140	Technical Aspects of Anatomy and Physiology	3
NT	104	Pharmacology Math	1
NT	140	Technical Aspects of Adult Health Nursing	5
NT	142	Technical Aspects of Nursing Dynamics	1
NT	143	Technical Aspects of Nutrition	1
NT	144	Technical Aspects of Pharmacology for Nurses	2
NT	146	Technical Aspects of Child Health Nursing	2
NT	147	Technical Aspects of Maternal-Newborn Nursing	2

No.		Course	Credit
NT	200	Mental Health Nursing	3
NT	201	Nursing Clinical Experience V	3
HC	200	Pathophysiology for Nurses	3
NT	202	Role Transition LPN to RN	1
COMM	122	Communications II	3
SOCI	161	Sociology of Family Living	3
		or	
SOCI	165	Cross Cultural Studies	3
NT	210	Advanced Nursing of the Adult I	3
NT	211	Nursing Clinical Experience VI	5
NT	213	Nutritional Care II	1
COMM	123	Communications III	3
COMM	104	Job Search Techniques	1
		or	
HC	102	Health Promotion Elective	1
NT	220	Advanced Nursing of the Adult II	3
NT	221	Nursing Clinical Experience VII	5
NT	222	Nursing Dynamics V	1
NT	225	Advanced Maternal Child Nursing	1
HC	202	Community Health	3
COMM	130	Speech	3

Natural Resources Technologies

Technical Programs

Programs leading to an Associate Degree:

- Ecotourism
- Forestry
- Geographics
- Recreation and Wildlife
  - Back Country Horsemanship Major
  - Fish and Wildlife Major
  - Interpretive Services Major
  - Ranger Services Major
- Timber Harvesting
- Tree Care

Certificate Programs

Programs providing specific technical skills:

- Back Country Horsemanship
- Backpacking and Survival
- Geographic Information Systems Trainee
- Geographic Information Systems Data Automator
- Lumber Grading
- Recreation Area Maintenance Program
- Timber Harvesting
- Tree Surgery
- Watercraft Skills I
- Watercraft Skills II
- Wilderness Skills
- Wildfire Control for Recreation Areas
- Wildlife Conservation Aide

Ecotourism

The Ecotourism Technology prepares students for entry-level careers in the ecotourism industry and provides a background sufficient for growth and advancement in the profession.

Introduced in the 1980's as a creative strategy for conservation, ecotourism has evolved over the last decade into a massive, global commercial enterprise. "Ecotourism is environmentally responsible travel and visitation to enjoy and appreciate nature that promotes conservation, has low visitor impact and provides for the beneficially active socioeconomic involvement of local populations" (Hector Ceballos-Lascurain, Head of the Ecotourism Consultancy Program for The World Conservation Union). Students in Hocking's Ecotourism Technology study natural and ecological sciences, interpretive/tour guide services, hospitality, tourism and business.

Job Opportunities
Graduates are employed in private and public ecotourism sites including positions in national parks, environmental and community education centers (zoos, museums, aquariums, nature centers), resort and lodge operations and the tourism industry.

No.		Course	Credit
GS	120	Orientation to American Life	3
REC	150	Introduction to Interpretation	2
NR	121	Zoology	3
REC	134	Environmental Issues	3
MATH	201	College Algebra I	3
COMM	122	Communications II	3
	••	Elective (Required)	3
REC	115	Interpretive Methods	3
TRAV	152	Introduction to Ecotourism	2
NR	120	Botany	3
COMM	123	Communications III	3
	••	Elective (Required)	3
TRAV	160	Tour Development	3
BUS	170	Fundamentals of Business I	3
MCS	130	Principles of Customer Service	3
REC	132	Geology	3
COMM	124A	Communications IV: Job Communications	3
COMM	225	Technical Writing	3
	••	Elective (Required)	3
NR	171	Natural Areas Management	2
NR	185	Resource Area Planning	3
REC	123	Cartography	2
ACC	100	Accounting I	3
	••	Elective (Required)	3
REC	217	Aquatic Ecology	3
SUPR	235	Supervision and Leadership	3
	••	Natural Resources Elective (Required)	3
	••	Hospitality Elective (Required)	3
HOTR	275	Resort Management and Development	3
REC	209	Terrestrial Ecology	3
REC	237	Self Guided Interpretive Activities	2
	••	Elective (Required)	6
HOTR	170	Marketing Small Properties	3
HRCA	114	Food Management	3
HUM	203	Ethics, Values and Morality	3
REC	234	Archaeology	3
	••	Elective (Required)	3
	••	Interpretive Elective (Required)	3
NR	298	Natural Resources Internship	6

Forestry

Recipient of the Ohio Board of Regents Program Excellence Award.

The Forestry Technology prepares individuals for careers in applied forestry in such positions as nursery operator, timber cruiser, restoration and reforestation specialist, fire prevention and suppression worker, insect and disease control technician, silviculture worker, and log scaler and provides sufficient background for growth and advancement in the forestry profession.

This two-year program leads to an Associate of Applied Science and meets standards set by the Society of American Foresters.

Forestry students work with public and private forestry organizations and operate forestry equipment that ranges from a hand compass to the surveyor's transit to chainsaws and bulldozers. Classroom work is followed by extensive field training including forest inventory, forest management, reforestation and reclamation, and trips to professional meetings and forest industries throughout the hardwood forest region.

Job Opportunities
Forestry studies focus on careers found in both the public and private sector. Skilled forestry technicians are particularly attractive to industries engaged in the harvesting and marketing of wood products.

No.		Course	Credit
FOR	111	Forest Dendrology	3
NR	110	Introduction to Natural Resources	3
NR	150	Wildfire Control/Recreation Areas	2
NR	169	Natural Resources Expo I	1
HC	114	Standard First Aid	1
MATH	201	College Algebra I	3
MICS	200A	Apple Software Packages: Word Processing	1
NR	126	Woods Safety	1
COMM	122	Communications II	3
FOR	120	Photo Interpretation	3
NR	125	Forest Soils	3
FOR	124	Forest Ecology	3
MATH	202	Geometry and Trigonometry	3
MICS	200B	Apple Software Packages: Database	1
COMM	123	Commuications III	3
FOR	110	Reforestation	3
FOR	123	Forest Measurements	4
NR	256	Pesticide Use in Natural Resources	2
FOR	131	Forest Entomology and Pathology	4
MICS	200C	Apple Software Packages: Spreadsheet	1
COMM	124	Communications IV	3
FOR	211	Timber Harvesting	3
FOR	220	Applied Silviculture	4
NR	123	Surveying and Mapping I	3
NR	170	Natural Resources Expo II	1
BUS	100	Small Business Management I	3
COMM	225	Technical Writing	3
FOR	210	Forest Mensuration	4
NR	224	Forestry Employment Seminar	2
REC	215	Wildlife Mangement I	3
BUS	101	Small Business Management II	3
SUPR	235	Supervision and Leadership	3
	••	Forestry Elective (Required)	3
FOR	230	Forest Management	4
FOR	231	Forest Products Utilization	3
FOR	232	Lumber Grading and Marketing	4
COMM	135	Verbal Career Skills	3
SOCI	169	Human Relations in Organizations	3

Geographics (GIS/GPS)

The Geographics Technology prepares individuals for careers in Geographic Information Systems (GIS) and Global Positioning by Satellite (GPS) technologies and provides students with a background sufficient for growth and advancement in the profession.

Geographics technology is "exploding" across business, industry and government. This timely new technology is sweeping land management professions. Students will experience the revolutionary manner in which GIS manages, manipulates, analyzes, and displays geographically referenced data. GIS offers unparalleled planning speed and versatility to land managers of all sorts whether in national forests, state emergency management teams or the local community.

Job Opportunities
A recent job prospectus indicates a need for 35,000 jobs annually in the land management field.

No.		Course	Credit
FOR	222	Introduction to Forestry	3
GEO	100	Introduction to GIS	2
NR	123	Surveying and Mapping I	3
COMM	122	Communications II	3
MATH	201	College Algebra I	3
MICS	112	Introduction to DOS	1
NR	172	Geography	3
FOR	120	Photo Interpretation	3
REC	123	Cartography	2
COMM	123	Communications III	3
MATH	202	Geometry and Trigonometry	3
MICS	200	Apple Software Packages	3
GEO	101	Intermediate GIS	3
GEO	102	Introduction to GPS	3
GEO	130	Applied Coordinate Geometry	3
REC	131	Field Biology	3
COMM	124	Communications IV	3
EM	126	Search and Rescue Introduction	2
GEO	200	Applications in GIS	3
GEO	203	GPS Data Acquisition	3
NR	270	Land Navigation	1
REC	215	Wildlife Management I	3
REC	210	Woodland Ecology	3
REC	217	Aquatic Ecology	3
GEO	201	Intermediate GIS Applications	3
MICS	142	dBase IV	1
NR	173	Surveying and Mapping II	3
NR	222	Reclamation	3
NR	131	Environmental Chemistry	3
GEO	202	Advanced GIS Applications	3
GEO	204	Remote Sensing	3
NR	176	Wetlands Management	3
SUPR	235	Supervision and Leadership	3
REC	244	Land Mangement and Soils	3

Recreation and Wildlife Management

Recipient of the Ohio Board of Regents Program Excellence Award.

The Recreation and Wildlife Management Technology provides core courses to prepare students as recreational and wildlife management technicians. Students may declare one of four majors or select electives from several majors. Majors include Back Country Horsemanship, Fish and Wildlife Management, Interpretive Services and Ranger Services.

Graduates possess exceptionally strong backgrounds in environmental principles, concepts and applied field practices.

Numerous areas on Hocking's 1400 acre campus serve as learning resources: the Hocking Woods Nature Center, fish hatchery ponds, a landscape nursery, picnic shelters, bird and wildlife feeding stations with observation blinds, a complex trail system and the Robbins Crossing Living History Laboratory. Nearly 4,700 acres of nearby land and several regional public forests, parks, and wildlife areas are used for instructional purposes.

Internships and practicum experiences are provided through affiliations with government wildlife areas, fish hatcheries, and park systems.

Job Opportunities
Public agencies and private firms across the United States readily employ Hocking College Recreation and Wildlife Management graduates.

No.		Course	Credit
NR	111	Dendrology	3
REC	113	Watercraft Operations and Maintenance	2
REC	115	Interpretive Methods	3
MICS	200A	ASP: Word Processing	1
NR	121	Zoology	3
COMM	122	Communications II	3
REC	114	Recreation Employment Seminar	1
REC	122	Game Animals of East Central U.S.	3
MICS	200B	ASP: Database	1
NR	120	Botany	3
COMM	123	Communications III	3
MATH	201	College Algebra I	3
	••	Recreation Course (Required)	3
REC	110	Chainsaw Operation	1
REC	123	Cartography	2
REC	130	Recreation Area Equipment	1
REC	134	Environmental Issues	3
MICS	200C	ASP: Spreadsheet	1
REC	131	Field Biology	3
	••	Recreation Course (Required)	3
FOR	222	Introduction to Forestry	3
REC	210	Woodland Ecology	3
REC	215	Wildlife Mangement I	3
REC	217	Aquatic Ecology	3
NR	170	Natural Resources Expo II	1
	••	Recreation Course (Required)	3
COMM	135	Verbal Career Skills	3
COMM	225	Technical Writing	3
REC	234	Archaelogy	3
SUPR	235	Supervision and Leadership	3
	••	Recreation Courses (Required)	6
REC	222	Recreation Area Maintenance	2
REC	132	Geology	3
REC	233	Ornithology	3
REC	244	Land Management and Soils	3
EM	100	Emergency Victim Care (EMT-A)	6
		or	
HC	115	First Responder	2

Recreation and Wildlife Back Country Horsemanship Major

The Back Country Horsemanship Major prepares individuals for careers in both the public and private sector of the recreational industry and provides a background sufficient for growth and advancement in the recreation and wildlife profession.

Many indicators point to recreation industries as among the fastest growing segments of the economy with horse and horse-related activities one of the fastest growing. This is particularly true for the use of horses in park and wilderness management and patrol activities. There is a continuing shortage of trained and qualified employees in this field.

Hocking College's Recreation and Wildlife Technology Back Country Horsemanship Major is helping meet this demand by providing graduates for this rapidly growing industry. The Back Country Horsemanship Major focuses on wilderness riding, animal care and equipment repair skills.

Job Opportunities
Employment opportunities are found with the National Park Service, U.S. Forest Service, U.S. Border Patrol, state and metropolitan park systems and in the private recreational sector with outfitters and wilderness packers.

No.		Course	Credit
NR	111	Dendrology	3
NR	114	Horsemanship I: Beginning Riding	3
REC	110	Chainsaw Operation	1
REC	130	Recreation Area Equipment	1
MICS	200A	ASP: Word Processing	1
NR	121	Zoology	3
COMM	122	Communications II	3
NR	134	Horsemanship II: Intermediate Riding	3
REC	114	Recreation Employment Seminar	1
REC	115	Interpretive Methods	3
REC	122	Game Animals of East Central U.S.	3
MICS	200B	ASP: Database	1
NR	120	Botany	3
COMM	123	Communications III	3
MATH	201	College Algera I	3
NR	135	Horsemanship III: Advanced Trail Riding	3
REC	113	Watercraft Operations and Maintenance	2
REC	123	Cartography	2
REC	134	Environmental Issues	3
MICS	200C	ASP: Spreadsheet	1
REC	131	Field Biology	3
REC	234	Archaeology	3
FOR	222	Introduction to Forestry	3
NR	116	Horse Pack and Tack Repair	3
REC	210	Woodland Ecology	3
REC	215	Wildlife Management I	3
REC	217	Aquatic Ecology	3
REC	244	Land Management and Soils	3
NR	117	Horse Program Management	2
NR	115	Horseshoeing I	3
COMM	135	Verbal Career Skills	3
COMM	225	Technical Writing	3
SUPR	235	Supervision and Leadership	3
NR	271	Campus Park Patrol	3
REC	222	Recreation Area Maintenance	2
NR	118	Colt Training I	3
		or	
NR	272	Teaching Horseback Riding	3
REC	132	Geology	3
REC	233	Ornithology	3
EM	100	Emergency Victim Care (EMT-A)	6
		or	
HC	115	First Responder	2

Recreation and Wildlife
Fish and Wildlife Major

The Fish and Wildlife Management Major prepares individuals for careers with land and resource management agencies, both public and private, in such positions as fish and wildlife conservation aides, fish hatchery technicians and soil conservation service technicians. It also provides a background sufficient for growth and advancement in the fish and wildlife profession.

This "learning by doing" program provides classroom theory presentations through multiple sources of media, lecture and student/instructor interaction while preparing students for field laboratories in pond renovation and fish production, wildlife habitat planning and planting, and actual in-field environmental studies which include indepth studies of birds, fish, animals, and habitats.

Job Opportunities
Hocking College's Recreation and Wildlife Technology Fish and Wildlife Major provides the education and training needed for securing entry-level positions in many land and resource management agencies. Fish and wildlife conservation aides, fish hatchery technicians and soil conservation service technicians are only a few of the many positions for which this academic major prepares the graduate.

No.		Course	Credit
NR	111	Dendrology	3
REC	110	Chainsaw Operation	1
REC	130	Recreation Area Equipment	1
REC	134	Environmental Issues	3
NR	121	Zoology	3
COMM	122	Communications II	3
REC	114	Recreation Employment Seminar	1
REC	121	Ohio Trees	2
REC	122	Game Animals of East Central U.S.	3
REC	123	Cartography	2
NR	123	Surveying and Mapping I	3
		or	
REC	120	Woodshop	1
NR	120	Botany	3
MATH	201	College Algebra I	3
REC	113	Watercraft Operations and Maintenance	2
REC	115	Interpretive Methods	3
REC	136	Wildlife Investigation Techniques	2
REC	161	Ichthyology	3
REC	131	Field Biology	3
MATH	202	Geometry and Trigonometry	3
REC	210	Woodland Ecology	3
REC	215	Wildlife Mangement I	3
REC	217	Aquatic Ecology	3
MICS	200A	ASP: Word Processing	1
REC	132	Geology	3
REC	244	Land Management and Soils	3
REC	234	Archaeology	3
REC	221	Fish Management I	3
REC	222	Recreation Area Maintenance	2
EM	100	Emergency Victim Care (EMT-A)	6
HC	115	First Responder	2
COMM	123	Communications III	3
COMM	135	Verbal Career Skills	3
MICS	200B	ASP: Database	1
NR	131	Environmental Chemistry	3
SUPR	235	Supervision and Leadership	3
FOR	222	Introduction to Forestry	3
REC	238	Fish Management II	4
		or	
REC	239	Wildlife Management II	4
REC	241	Fish Hatchery Management	4
MICS	200C	ASP: Spreadsheet	1
REC	233	Ornithology	3
COMM	225	Technical Writing	3

Recreation and Wildlife Interpretive Services Major

The Interpretive Services Major prepares individuals for careers in the fields of natural, cultural and/or historical interpretation and provides an academic background sufficient for growth and advancement in the recreation and wildlife profession.

Hocking College's Interpretive Services Major focuses on the interpretive application of natural, cultural and living history. Training in visitor interaction, exhibit design, interpretive graphics, development of outdoor study sites, research and character development, historical programming, and costuming are included in the curriculum.

Interpretive students practice their skills at Robbins Crossing Living History Learning Laboratory where they authentically recreate the setting and people of 19th century rural southeastern Ohio.

Programming at the Hocking Woods Nature Center is designed and conducted by Interpretive Services students.

Job Opportunities
As a result of increased park, museum and other natural and cultural education center visitations, the interpretive field has diversified creating many new employment positions. Interpretive programs operate in federal, state and metropolitan park systems, zoos, museums, and public and private outdoor education centers. There is an ever increasing demand for interpreters who can manage archives, conduct interpretive walks and presentations, and script and perform living history mini-dramas.

No.		Course	Credit
NR	111	Dendrology	3
REC	113	Watercraft Operations and Maintenance	2
REC	120	Woodshop	1
REC	150	Introduction to Interpretation	2
MICS	200A	ASP: Word Processing	1
NR	121	Zoology	3
COMM	122	Communications II	3
REC	114	Recreation Employment Seminar	1
REC	115	Interpretive Methods	3
REC	122	Game Animals of East Central U.S.	3
MICS	200B	ASP: Database	1
NR	120	Botany	3
COMM	123	Communications III	3
MATH	201	College Algebra I	3
REC	110	Chainsaw Operation	1
REC	117	Interpretive Interaction Techniques	2
REC	123	Cartography	2
REC	130	Recreation Area Equipment	1
REC	134	Environmental Issues	3
MICS	200C	ASP: Spreadsheet	1
NR	259	Outdoor Programs	3
REC	131	Field Biology	3
FOR	222	Introduction to Forestry	3
NR	264	Recreation Programming	3
REC	210	Woodland Ecology	3
REC	215	Wildlife Mangement I	3
REC	217	Aquatic Ecology	3
REC	243	Living History Techniques	2
REC	118	Historical Perspectives	2
REC	226	Development and Design of Outdoor Studies Situations	3
REC	236	Exhibit/Visitor Center Design	2
REC	237	Self Guided Interpretive Activities	2
COMM	135	Verbal Career Skills	3
REC	234	Archaeology	3
SUPR	235	Supervision and Leadership	3
REC	141	Nature Center and Museum Operations	2
REC	222	Recreation Area Maintenance	2
EM	100	Emergency Victim Care	6
		or	
HC	115	First Responder	2
REC	132	Geology	3
REC	244	Land Management and Soils	3
COMM	225	Technical Writing	3
REC	233	Ornithology	3

Recreation and Wildlife Ranger Services Major

The Ranger Services Major prepares individuals for resource, visitor protection and emergency services careers in natural resource recreation areas throughout the United States which are administered, owned, and/or operated at all levels of government and private industry. It provides a background sufficient for growth and advancement in the recreation and wildlife profession.

At the federal level, the National Ranger Training Institute at Hocking College has been recognized as a satellite training facility of the Federal Law Enforcement Training Center. Hocking College's Recreation and Wildlife Ranger Services Major, through the National Ranger Training Institute at Hocking College, includes Seasonal Officer Training which is certified by the U.S. Department of the Interior, National Park Service, the U.S. Fish and Wildlife Services and the prestigious City and Guilds Institute of London, England.

Job Opportunities
Successful completion of the seasonal officer program qualifies graduates for federal seasonal law enforcement commissions and will aid in employment with federal, state and metropolitan park systems.

No.		Course	Credit
NR	111	Dendrology	3
REC	113	Watercraft Operations and Maintenance	2
REC	115	Interpretive Methods	3
REC	123	Cartography	2
MICS	200A	ASP: Word Processing	1
NR	121	Zoology	3
COMM	122	Communications II	3
NR	169	Natural Resources Expo I	1
REC	114	Recreation Employment Seminar	1
REC	122	Game Animals of East Central U.S.	3
MICS	200B	ASP: Database	1
NR	120	Botany	3
COMM	123	Communications III	3
MATH	201	College Algebra I	3
	••	Enforcement Elective (Required)	3
REC	110	Chainsaw Operation	1
REC	130	Recreation Area Equipment	1
MICS	200C	ASP: Spreadsheet	1
REC	131	Field Biology	3
REC	233	Ornithology	3
REC	244	Land Mangement and Soils	3
REC	234	Archaeology	3
SUPR	235	Supervision and Leadership	3
EM	123	Rappelling and Rope Techniques	2
NR	113	How to Get Government Jobs	1
REC	210	Woodland Ecology	3
REC	215	Wildlife Management I	3
REC	217	Aquatic Ecology	3
REC	222	Recreation Area Maintenance	2
EM	100	Emergency Victim Care (EMT-A)	6
		or	
HC	115	First Responder	2
EM	126	Search and Rescue Introduction	2
FOR	222	Introduction to Forestry	3
NR	150	Wildfire Control/Recreation Areas	2
REC	134	Environmental Issues	3
REC	132	Geology	3
COMM	135	Verbal Career Skills	3
COMM	225	Technical Writing	3
NR	215	Vehicle Operations for Natural Resources Officers	1

No.		Course	Credit
NR	242	Law, Philosophy and Objectives for Natural Resources Officers	2
NR	243	Law Problems and Recognition	1
NR	244	Vehicular Accident Investigation	1
NR	245	Public Relations for Natural Resources Officers	1
NR	269	Conservation Law for Natural Resources Officers	3
NR	280	Defense Weapon Training for Natural Resources Officers	3
REC	240	Environmental Enforcement Problems	2

Timber Harvesting

The Timber Harvesting specialist program prepares individuals for jobs in timber harvesting and in timber harvesting equipment operations, maintenance and repair and provides a background sufficient for growth and advancement in the timber harvesting profession.

The Timber Harvesting specialist program at Hocking College is a complete logger training program which emphasizes safe, efficient timber production techniques while incorporating "best management practices." The Timber Harvesting program frequently works in the Wayne National Forest in specialized harvesting situations, in addition to performing custom logging operations for private landowners. Students in the Timber program are expected to master the operation and maintenance of all equipment used in logging operations. Field work is scheduled for an average of three days per week. In the third quarter students operate a commercial logging operation for eleven weeks. Upon completion of the program the student has mastered the basic entry level skills required by the harvesting industry and receives a technical certificate in Timber Harvesting.

The Timber Harvesting and Tree Care certificates can be combined with basic and general courses resulting in an Associate of Technical Studies.

Job Opportunities

Numerous employment opportunities are available with private logging operations throughout the eastern hardwood region of the United States.

No.		Course	Credit
FOR	111	Forest Dendrology	3
NR	169	Natural Resources Expo I	1
SLG	111	Log Grading and Scaling	2
THS	112	Timber Harvesting Skills I	6
HC	114	Standard First Aid	1
NR	126	Woods Safety	1
THS	111	Diesel, Gas, Small Engine Repair	3
NR	226	Production Analysis	3
THS	122	Timber Harvesting Skills II	6
COMM	104	Job Search Techniques	1
THS	120	Hydraulics and Mechanical Systems Maintenance and Repair	3
THS	121	Welding	3
THS	130	Timber Harvesting Skills III	9
THS	131	Timber Harvesting Seminar	3
NR	170	Natural Resources Expo II	1
NR	256	Pesticide Use in Natural Resources	2
FOR	123	Forest Measurements	4
REC	244	Land Management and Soils	3

Basic and General Courses

No.		Course	Credit
BUS	120	Personal Finance	3
EGR	201	Occupational Safety	3
COMM	122	Communications II	3
BUS	100	Small Business Management I	3
MATH	201	College Algebra I	3
COMM	123	Communications III	3
COMM	135	Verbal Career Skills	3
PSYC	150	Introduction to Psychology	3
COMM	225	Technical Writing	3
SOCI	160	Introduction to Sociology	3
SUPR	235	Supervision and Leadership	3

Tree Care

The Tree Care program prepares individuals for careers in tree surgery such as residential tree trimming or as utility right-of-way clearing workers. It also provides students with a background sufficient for growth and advancement in the tree care profession.

The Tree Care program at Hocking College is a one quarter program that prepares the student to become an entry level climber and tree surgeon. The program combines classroom learning with experience at work sites. Successful graduates earn a certificate in Tree Surgery.

The Tree Care and Timber Harvesting certificates can be combined with basic and general courses resulting in an Associate of Technical Studies.

Job Opportunities
Trained tree surgeons are in great demand. Depending on the individual's skill level, graduates may be hired as ground-workers or apprentice climbers. Exceptional individuals with a few months of experience may move into foreman positions.

No.		Course	Credit
TRC	110	Climbing	3
TRC	112	Mechanics of Tree Care	3
TRC	113	Tree Care Equipment	3
TRC	115	Climbing II	3

Basic and General Courses

No.		Course	Credit
BUS	120	Personal Finance	3
EGR	201	Occupational Safety	3
COMM	122	Communications II	3
BUS	100	Small Business Management I	3
MATH	201	College Algebra I	3
COMM	123	Communications III	3
COMM	135	Verbal Career Skills	3
PSYC	150	Introduction to Psychology	3
COMM	225	Technical Writing	3
SOCI	160	Introduction to Sociology	3
SUPR	235	Supervision and Leadership	3

Public Safety Services Technologies

Technical Programs

Programs leading to an Associate Degree:

Emergency Medical
Fire and Emergency Services
Human and Correctional Services
    Juvenile Corrections Major
Police Science

Certificate Programs

Programs providing specific technical skills:

Advanced Fire Fighting
Advanced Industrial Security
Advanced Retail Security
Basic Fire Fighting (36-Hour)
Basic Industrial Security
Basic Retail Security
Certificate Ohio EMT-P (5-3 002)
Correctional Officer Training
Dispatcher Training
Domestic Violence Laws and Techniques
Emergency Medical Technology-Ambulance
Fire Science
Homicide Investigation Techniques
NASAR Managing the Search Function
Ohio Peace Officers' Basic Training
Rappelling
Side-Handled Baton Training
Unarmed Self Defense
Vertical Rope Rescue

Emergency Medical

The Emergency Medical Technology prepares students for entry-level career positions as EMT-A's and EMT-P's and ultimately for middle management positions.

Emergency Medical Technicians administer lifesaving care at the scene of accidental injury or sudden illness. The EMT program consists of three phases of training: EMT-A (Basic), EMT-P (Paramedic) and Associate of Applied Science.

The one-quarter EMT-A (Basic) program covers basic life support and leads to eligibility for state and national certification. The EMT-P (Paramedic) program includes training in basic and advanced life support management. Each phase prepares students to take the appropriate national registry exam and be certified both state and nationally.

Job Opportunities
The six-quarter associate degree program prepares paramedics for beginning management positions in emergency medical services and for emergency room technician positions. Employment is also available in government agencies, privately owned emergency services including health or emergency services and fire, police, forest and recreation services.

EMT-A (Basic)

No.		Course	Credit
EM	100	Emergency Victim Care (EMT-A)	6
EM	101	EMT Clinical Experience I	2
EM	102	Defensive Driving and Emergency Vehicle Operation	1

EMT-P (Paramedic)

No.		Course	Credit
EM	110	EMT Paramedic I	7
EM	203	Emergency Rescue Operations	4
EM	204	Introduction to Hazardous Materials	1
HC	100	The Human Organism	3
NT	104	Pharmacology Math	1
EM	111	EMT Clinical Experience II	2
EM	113	EMT Squad Experience I	2
EM	120	EMT Paramedic II	7
HC	101	Medical Terminology I	3
EM	114	EMT Squad Experience II	2
EM	121	EMT Clinical Experience III	2
EM	140	EMT Paramedic III	6
HC	102Q	H.P.E.: Physical Conditioning	1
PSYC	152	Abnormal Psychology	3

No.		Course	Credit
COMM	122	Communications II	3
HC	149	Stress and Stress Management	1
EM	160	EMT Self Defense Tactics	2
EM	275	EMT Seminar	1
COMM	104	Job Search Techniques	1
PSYC	150	Introduction to Psychology	3
EM	116	Introduction to Aeromedical Evac	1
EM	201	Paramedic Supervision Practicum	3
EM	227	Emergency Response to Hazardous Materials	4
ACC	120	Payroll Accounting	3
BUS	100	Small Business Management I	3
OAT	180	Keyboarding	1
SOCI	169	Human Relations in Organizations	3
EM	200	Physical Assessment and Emergency Room Techniques	3
HUM	203	Ethics, Values and Morality	3
MICS	121	MicroSoft Works for Windows	3
SUPR	235	Supervision and Leadership	3

No.		Course	Credit
EM	202	Advanced Cardiac Life Support (ACLS)	1
EM	221	In-Service Education Clinical Experience for EMT's	3
BUS	230	Labor-Management Relations	3
CJ	225	Basic River Rescue	2
EM	213	Public Administration, Relations and Education	4
COMM	123	Communications III	3
COMM	130	Speech	3

Fire and Emergency Services

The Fire and Emergency Services Technology educates and trains students in the attributes essential to entry level fire-medics. In addition, it encourages professional growth and attempts to inspire a lifetime of service to the profession and society.

The Fire and Emergency Services Technology provides education and training in handling fires and other emergencies in communities, industrial operations and recreational areas. Students learn fire fighting and prevention techniques during one year of study and receive additional education and training in the Emergency Medical Technology during the second year. Students earn a Fire Science Certificate upon completion of the first year, complete requirements for the 200 hour Fire Certificate (Ohio Public Safety Services) and earn certification in hazardous materials. Completion of two years of study results in an Associate of Technical Studies Degree as well as completion of requirements for the EMT-P National Registry.

Job Opportunities
Upon completion of their degree or selected courses students may be employed as fire fighters, fire medics, EMT-A's, or EMT-P's.

No.		Course	Credit
EM	100	Emergency Victim Care (EMT-A)	6
EM	204	Introduction to Hazardous Materials	1
FS	100	Basic Fire Fighting	3
FS	105	Orientation to Fire Services	2
COMM	122	Communications II	3
MATH	201	College Algebra I	3
FS	110	Advanced Fire Fighting I	5
FS	116	Fire Prevention and Investigation Techniques	3
EM	213	Public Administration, Relations and Education	4
EM	227	Emergency Response to Hazardous Materials	4
HUM	203	Ethics, Values and Morality	3
CJ	225	Basic River Rescue	2
FS	115	Advanced Fire Fighting II	5
CHEM	100	Introduction to Chemistry	3
EM	203	Emergency Rescue Operations	4
COMM	130	Speech	3
HC	102Q	HPE: Physical Conditioning	1
MICS	143	WordStar	1
EM	101	EMT Clinical Experience I	2
EM	102	Defensive Driving and Emergency Vehicle Operation	1
EM	110	EMT Paramedic I	7
HC	100	The Human Organism	3
NT	104	Pharmacology Math	1
PSYC	154	Interpersonal Communications	3
EM	111	EMT Clinical Experience II	2
EM	113	EMT Squad Experience I	2
EM	120	EMT Paramedic II	7
COMM	123	Communications III	3
HC	101	Medical Terminology I	3
HC	149	Stress and Stress Mangement	1
EM	114	EMT Squad Experience II	2
EM	121	EMT Clinical Experience III	2
EM	140	EMT Paramedic III	6
EM	160	EMT Self Defense Tactics	2
EM	275	EMT Seminar	1
NR	150	Wildfire Control/Recreation Areas	2
COMM	104	Job Search Techniques	1
PSYC	150	Introduction to Psychology	3

Human and Correctional Services

The Human and Correctional Services Technology provides quality instruction to students in the areas of probation, parole, corrections and human services in both the adult and juvenile systems. The goal of this instruction is to provide the skills necessary for entry level positions in these areas.

The Human and Correctional Services Technology provides educational experiences that build skills necessary to help adults and children who need direction and reorganization in their lives. Recognizing the causes of deviant behavior and referring the individual for treatment are just two of the practical skills students learn in this two-year associate degree program. Students also develop strong skills in counseling through both class and laboratory experiences.

This program includes two quarters of practicum experience where a student has the opportunity for direct application of his/her learned skills.

Job Opportunities
Graduates are employed as juvenile probation or parole officers, corrections officers or investigators, youth leaders/coordinators at social welfare agencies or halfway houses and in many other human services agencies.

No.		Course	Credit
CORR	100	Orientation to Corrections	2
CORR	105	Adult Residential Services	4
CORR	161	Reality Therapy	3
CJ	100	Criminal Justice Systems	3
CJ	121	Ohio Criminal Law	4
COMM	122	Communications II	3
CJ	190	Chemical Abuse and Dependency	3
CORR	106	Probation and Parole	3
CORR	151	Unarmed Self-Defense	2
CORR	160	Group Work Techniques	3
HUM	203	Ethics, Values and Morality	3
PSYC	150	Introduction to Psychology	3
CORR	260	Interviewing Techniques	4
JUV	102	Juvenile Delinquency	3
CORR	122	Correctional Law	3
COMM	123	Communications III	3
MICS	101	Computer Literacy	1
SOCI	160	Introduction to Sociology	3
CJ	250	Criminology	3
CORR	235	Correctional Report Writing	3
CORR	261	Approaches to Counseling	4
CORR	298	Corrections Practicum Orientation	1
SEPS	205	Correctional Security	3
PSYC	151	Developmental Psychology	3
CORR	262	Counseling Techniques	3
CORR	296A	Corrections Practicum	3
CJ	263	Crisis Recognition and Referral	3
PSYC	152	Abnormal Psychology	3
SOCI	161	Sociology of Family Living	3
SOCI	162	Social Issues	3
CORR	265	Case Analysis	3
CORR	296B	Corrections Practicum	3
HC	114	Standard First Aid	1
SOCI	165	Cross Cultural Studies	3
SUPR	235	Supervison and Leadership	3
COMM	135	Verbal Career Skills	3
		or	
GOVT	142	Interaction with Government and Politics	3

Human and Correctional Services Juvenile Major

The Human and Correctional Services Technology Juvenile Major provides quality instruction to students in the areas of probation, parole, corrections and human services in the juvenile system. The goal of this instruction is to provide the skills necessary for entry level positions in these areas.

Job opportunities in juvenile corrections are growing. The Ohio Department of Youth Services is building new institutions in response to current institution overcrowding. The Hocking College Juvenile Major will provide instruction necessary to gain skills and knowledge to work in one of these new facilities or in a program to support these facilities.

The Human and Correctional Services Technology Juvenile Major provides educational experiences that build skills necessary to help youth who need direction and reorganization in their lives. Recognizing the causes of deviant behavior and referring the individual for treatment are just two of the practical skills students learn in this two-year associate degree program. Students also develop strong skills in counseling through both class and laboratory experiences.

This program includes two quarters of practicum experience where a student has the opportunity for direct application of his/her learned skills.

Job Opportunities
Graduates are employed as juvenile probation or parole officers, corrections officers or investigators, youth leaders/coordinators at social welfare agencies or halfway houses and in many other human services agencies.

No.		Course	Credit
CORR	100	Orientation to Corrections	2
JUV	100	Juvenile Residential Services	3
CJ	100	Criminal Justice Systems	3
CJ	121	Ohio Criminal Law	4
COMM	122	Communications II	3
PSYC	150	Introduction to Psychology	3
CJ	190	Chemical Abuse and Dependency	3
CORR	106	Probation and Parole	3
CORR	160	Group Work Techniques	3
JUV	110	Adolescent Cognitive Behavior	3
SEPS	205	Correctional Security	3
CJ	263	Crisis Recognition and Referral	3
CORR	260	Interviewing Techniques	4
JUV	102	Juvenile Delinquency	3
CORR	122	Correctional Law	3
CORR	151	Unarmed Self Defense	2
COMM	123	Communications III	3
MICS	101	Computer Literacy	1
SOCI	160	Introduction to Sociology	3
CJ	250	Criminology	3
CORR	161	Reality Therapy	3
CORR	235	Correctional Report Writing	3
CORR	261	Approaches to Counseling	4
CORR	298	Corrections Practicum Orientation	1
JUV	101	Family Dynamics	3
CORR	262	Counseling Techniques	3
CORR	296A	Corrections Practicum	3
JUV	105	Child Abuse	3
PSYC	151	Developmental Psychology	3
HUM	203	Ethics, Values and Morality	3
SOCI	162	Social Issues	3
CORR	265	Case Analysis	3
CORR	296B	Corrections Practicum	3
JUV	111	Juvenile Sexual Offender	3
PSYC	152	Abnormal Psychology	3
HC	114	Standard First Aid	1
SOCI	165	Cross Cultural Studies	3
COMM	135	Verbal Career Skills	3
		or	
GOVT	142	Interaction with Government and Politics	3

Police Science

Recipient of the Ohio Board of Regents Program Excellence Award.

The Police Science Technology provides quality education and training for students leading to entry-level career positions in law enforcement. Programming incorporates Ohio Peace Officer academy student performance objectives into the curriculum to prepare students for pre-service certification as a peace officer in Ohio.

The Police Science Technology teaches students the technical and human relations skills required to become modern law enforcement officers. Students learn through courses in law, criminalistics, photography and human interaction as well as through laboratory exercises. Students master investigative techniques by reenacting crime scenes and witness the processing and testing of actual case evidence at area law enforcement agencies. The state mandated training requirements of the Ohio Peace Officer Training Council have been integrated into the associate degree program.

Job Opportunities
Graduates are employed by private, federal, state and local law enforcement agencies. Job titles include sheriff's deputy, police and security officers.

No.		Course	Credit
CJ	101	Orientation to Law Enforcement	1
PSCI	106	Police Communication Operations	2
PSCI	140	Investigations Techniques and Methods	3
PSCI	210	Crime Prevention and Community Relations	2
CJ	130	Photography	2
HC	102Q	HPE: Physical Conditioning	1
SEPS	100	Introduction to Security	3
COMM	122	Communications II	3
CJ	132	Evidentiary Photography	3
PSCI	245	Accident Investigation	3
CJ	120	Criminal Law	4
HUM	203	Ethics, Values and Morality	3
MATH	201	College Algebra I	3
PSYC	150	Introduction to Psychology	3
CJ	150	Juvenile Delinquency and Procedures	4
CJ	250	Criminology	3
PSCI	180	Criminalistics I	3
PSCI	235	Police Report Writing	2
PSCI	260	Interviewing and Interrogation	2
OAT	180	Keyboarding	1
COMM	123	Communications III	3
PSCI	270	Police Administration	3
PSCI	280	Criminalistics II	3
HC	115	First Responder	2
MICS	121	MicroSoft Works for Windows	3
SOCI	165	Cross Cultural Studies	3
COMM	130	Speech	3
PSCI	223	Criminal Evidence	3
PSCI	240	Advanced Investigation	3
PSCI	281	Criminalistics III	3
CJ	222	Laws of Arrest, Search and Seizure	3
CJ	263	Crisis Recognition and Referral	3
COMM	104	Job Search Techniques	1
PSYC	152	Abnormal Psychology	3
PSCI	250	Peace Officer Basic Training	18

Admission Information

Who Can Apply?

Hocking College follows an open admission policy by accepting high school graduates, persons holding a GED or those with an interest in pursuing a technical program or the Transfer Module. Some programs may require additional criteria. Prospective students having neither a high school diploma nor an equivalency certificate should schedule an appointment with an admission counselor.

How To Apply

Applicants should follow the admission procedures outlined below:

Application Applicants must complete and return the admission application with a non-refundable $15 application fee.

Transcripts Applicants should forward high school transcripts (and college transcripts if applicable) to the Admission Office. If the applicant is not a high school graduate but has completed the GED test, then these results should be forwarded to the Admission Office.

Campus Visits

Prospective students may schedule a campus visit and admission interview by calling the Admission Office. Admission counselors are available Monday through Friday from 8AM to 5PM and on selected Saturdays by appointment. In addition, group Campus Visitation Sessions, which include campus and technology tours, financial aid and housing overviews, are held on selected Thursday afternoons. Reservations for Campus Visitation Sessions are made through the Admission Office.

If you need accommodations while visiting the College, call our own Quality Inn Hocking Valley for reservations, 614 753-3531. Travel arrangements may be made through the Uniglobe Travel Agency at 614 753-3510.

Special Admission Requirements

The Dietetic, Emergency Medical (EMT-A and EMT-P), Fire and Emergency Services, Health Information Management, Medical Assisting, Nanny, Nursing Level I and II and Police Science technologies have special admission requirements in addition to the basic requirements previously listed. Special requirements are due to limited class and clinical facility spaces and are necessary to meet state or national requirements. These special admission requirements may be obtained from the Admission Office. The Vice President for Enrollment Services will make the final decision in the admission of all students.

Admission For International Students

Hocking College is authorized under federal law to enroll non-immigrant aliens. International applications should be made six months prior to the quarter the applicant seeks to enter the College in order to insure the processing of the F-1 Visa. International applicants should follow the procedure below:

Application The applicant must submit a complete application form and non-refundable $25 application fee.

Financial Statement Applicants must submit a financial statement certifying that financial resources are available for education and support while studying at the College.

Personal Information Sheet Applicants must submit a completed personal information sheet.

Transcripts Official credentials, including subject and grades, must be received from all secondary schools, colleges or universities which the applicant has attended. If credentials are not in English, an official translation must be provided.

English Language Proficiency Results from the Test of English as a Foreign Language (TOEFL) exam are encouraged, but not required for admission. Students are tested upon their arrival at the College. If language proficiency is below acceptable standards, students must attend ESL classes until proficiency is obtained. Students in upper level ESL courses may be eligible to take technical courses simultaneously.

Transfers Hocking College accepts international students who may wish to transfer from other U.S. colleges and universities. Students who wish to transfer should follow the application procedures outlined above.

Interview Applicants must interview with the International Student Advisor before enrolling in classes. Pre-registration requirements must be completed.

Affirmative Action Statement

Hocking College offers equal educational and employment opportunities without regard to race, color, religion, marital status, national origin, sex, age or disability. Hocking College is an equal opportunity institution. Our services and facilities are available to all.

Financial Information

Tuition and General Service Fees*

Residents of Ohio		
Full-time fee	12-19 credits	$694 per quarter
Part-time fee	1-11 credits	$58 per credit hour
Students Residing Outside of Ohio		
Full-time fee	12-19 credits	$1388 per quarter
Part-time fee	1-11 credits	$116 per credit hour
International Students		
Full-time fee	12-19 credits	$1500 per quarter

Laboratory and uniform fees, if required, are in addition to tuition and general service fees.

Approximate Living Expenses

Room and Board	$1350 per quarter
Books	$300 per quarter

Student Activity Fee

Full-time students	$5 per quarter
Part-time students	Prorated

What These Fees Mean

Tuition covers the cost of classroom instruction. The *General Service Fee* partially supports Admission, Financial Aid, Student Affairs and other non-instructional support services. *Approximate Living Expenses* will vary depending on accommodations. The *Student Activity Fee* was approved by a vote of the student body and helps to support the Student Center. *Laboratory and Uniform Fees* cover the cost of consumable supplies required for specific courses.

*All fees are subject to change without prior notice.

Payment of Fees

Students will receive a fee bill detailing charges assessed at the time of registration. Fees or other financial arrangements are due at the time of registration. Checks should be made payable to Hocking College. Social Security numbers should be shown on the face of the check to ensure proper credit. American Express, Discover, Mastercard and Visa may be used to pay tuition and fees.

To avoid a late charge, all accounts must be paid in full by the first day of the quarter. Assessment of a $10 fee plus any collection cost will be made for payment of fees with a check returned by the bank for any reason. Students may not register, receive a transcript or graduate if the account balance is not paid in full.

Refunds

Instructional, general service and laboratory fees are returnable in part if a student withdrawls from the college. In order to be eligible for a return of fees, the student must present, within the times listed, the written withdrawal form to the Student Affairs Office as per instructions on the withdrawal form.

If exceptional circumstances prevent the student from officially withdrawing, this case can be presented for special consideration.

The admission application fee and a one time registration fee charged to first term students are not returnable. An administrative fee of 5% of tuition and fees is nonreturnable for all students.

For all students, except those registered for the first time, quarter fees will be returned according to the following schedule:

- From the date on which the fees were charged until the date before classes begin, full refund, less a 5% administrative fee.
- From the first day of classes through the sixth day of classes, 90% of tuition, general service and laboratory fees.
- From the seventh day of classes through the fourteenth day of classes, 50% of tuition, general service and laboratory fees.
- From the fifteenth day of classes through the twenty-eighth day of classes, 25% of tuition, general service and laboratory fees.
- No refund after the twenty-eighth day of classes.

For students registering with the college for the first time, quarter fees will be returned according to the following schedule:

- From the date on which the fees were charged until the day before classes begin, full refund less an administrative fee of 5% of tuition and fees.
- From the first day of classes through the fifth day of classes, 90% of tuition, general service and laboratory fees.
- From the sixth day of classes through the eleventh day of classes, 80% of tuition, general service and laboratory fees.
- From the twelfth day of classes through the sixteenth day of classes, 70% of tuition, general service and laboratory fees.
- From the seventeenth day of classes through the twenty-second day of classes, 60% of tuition, general service and laboratory fees.
- From the twenty-third day of classes through the twenty-eighth day of classes, 50% of tuition, general service and laboratory fees.
- From the twenty-ninth day of classes through the thirty-third day of classes, 40% of tuition, general service and laboratory fees.
- There are no refunds after the thirty-third day of classes.

Students who are dismissed by the college, and students who leave without following the withdrawal process, are not entitled to returned fees.

The refund policy for summer sessions or for modular, weekend and flexibly scheduled courses will use these same percentages. However, the periods of time involved are proportional to the length of the sessions, module or class period.

Residence Policy

Because Hocking College is supported by taxpayers of Ohio, out-of-state students must pay a tuition surcharge. A student's residence is determined at the time of enrollment, according to the residence policy of the Ohio Board of Regents. Requests for information should be addressed to the Residency Committee, Hocking College Admission Office.

Financial Aid

Grants, scholarships, loans, student employment and tuition work-off programs are available through the Financial Aid Office. Most programs are based on financial need as determined according to federal guidelines. The following briefly describes some of the forms of aid available, although complete information must be obtained from the Financial Aid Office.

Grants The two major sources of grant money are the Ohio Instructional Grant (OIG) and the federal Pell Grant. Both grants are awarded on the basis of financial need and do not require repayment. Students must maintain full-time status in order to receive maximum funding, but both the OIG and federal Pell may be prorated for less than full-time enrollment.

Scholarships Special donations have been made by different industries, businesses and private citizens to fund scholarships for first-year students and various technical programs including Ceramic, Culinary Arts, Nursing, Materials, Natural Resources and Computer Science. More than 30 special scholarships are available to first- and second-year students in these technologies.

Hocking College Foundation Scholarships are available through the generosity of the College and its faculty and staff. Foundation scholarships are given to outstanding first-year students and Principal Scholarships are awarded to 35 students through area high school principals each year.

The JOMc Academic Scholarship benefits both first- and second-year students with the highest academic achievement.

Scholarship selection is based on scholastic achievement, personal recommendations and a narrative accompanying the application. All students with a grade point average of 3.0 or better are encouraged to apply. Awards range from $300 to $1500 per year.

Campus-Based Programs The campus-based programs supplement financial aid awarded through the OIG and federal Pell Grant. The Federal Supplemental Educational Opportunity Grant (SEOG) is available to students who are U.S. citizens and demonstrate exceptional financial need. The Federal College Work-Study program allows students to work in a part-time job with earnings applied toward their college expenses.

Two college employment program let students work part-time to either earn money or reduce tuition. The Part-Time Employment program gives students with special skills who otherwise would not qualify for financial assistance a chance to work in on-campus part-time jobs. The Tuition Work-Off program allows students with exceptional need to "work off" tuition at on-campus work sites. Students skills are matched with job requirements.

JTPA The Jobs Training Partnership Act (JTPA) provides limited funds for books, tuition and fees to students meeting specific guidelines while attending Hocking College. Interested persons may contact the College or their local employment service for eligibility guidelines or additional information.

Other Funding Sources The federal Stafford Student Loan gives student access to low-interest educational loans through banks, savings and loan associations and credit unions participating in the program. Family income levels and need determine eligibility for either the Subsidized or Unsubsidized version of the loan. For students qualifying for a federal Subsidized Stafford Loan, the federal government pays the interest while the student is enrolled.

Other funding sources include the Bureau of Vocational Rehabilitation (BVR), Ohio National Guard Tuition Assistance Program and the GI Bill. BVR provides assistance to individuals with disabilities or handicaps and approximately ten percent of the students attending Hocking College receive some financial help through this agency. Men and women who are either enlisted in the National Guard or who are veterans are assisted financially through the other two programs.

Students should contact the Financial Aid Office for further details and applications.

Ability to Benefit Any student admitted to Hocking College who does not have a high school diploma or GED is admitted on the basis of the institution's determination of the student's ability to benefit from a college education. Students admitted under this classification are not eligible for federal financial aid programs (federal Pell Grant, federal Supplemental Educational Opportunity Grant, federal College Work-Study or federal Stafford Student Loan) until ability to benefit can be determined. All ability to benefit students desiring federal student aid must achieve minimum scores on a standardized assessment test administered by Academic Affairs in order to receive funding.

Services for Students

Academic Advising

Each student is assigned an academic advisor who assists the student to explore and pursue his or her educational goals. A student obtains a quarterly schedule block from the advisor and they work together to make schedule adjustments and assure progress toward the student's educational goals.

Academic Advising Center

The Academic Advising Center offers advising services, coordinates absence tracking systems, refers students to other services such as counseling and career planning and provide in-depth advising intervention to all students on academic probation.

Access Center

The Access Center, offered through the Center for Alternative Education, assists students with personalized inquiry, academic and support services. Staff assist with advising, tutoring, test-taking and arrange for campus transportation and classroom access. The Access Center also links students with other college services and with external service agencies.

Alumni Association

The Board of Trustees officially recognized the Hocking Alumni Association to"...foster a fellowship of alumni, perpetuate a source of collegiate heritage for the present and future well-being of Hocking College." The Alumni Association provides special discounts, sponsors alumni social activities, establishes scholarships and publishes an alumni newsletter. Graduates are encouraged to keep the Alumni Office informed of name or address changes.

Assessment

Prior to scheduling classes, students are required to be assessed in the areas of reading, writing and math. Results of the assessment are used to place students in the proper starting course for each of these areas

Bookstore

For books and supplies or the sweatshirt that's a must in every student's wardrobe, Hocking's Bookstore meets most students' needs. Textbooks and other supplies for each technology are available, as well as an assortment of convenience items. The Bookstore is adjacent to the main parking area.

Campus Ministry

The Campus Minister is employed by the Ohio Board of United Ministry in Higher Education and is available to students of all religious backgrounds. The Minister provides a listening and support system and coordinates fellowship gatherings.

Career Planning

For many students, choosing the right career may be difficult. The Career Planning Center helps students explore interests, aptitudes and achievement levels.

Counseling Services

Counseling Services offers a variety of personal, confidential counseling and student development services. Individual counseling is available to those experiencing personal or academic problems. Special workshops and courses cover topics of student interest such as assertiveness training, motivation, stress management, test taking and study habits.

Day Care Connection

Tri-County Community Action Agency operates the Day Care Connection, a preschool day care center located on campus. The facility is a safe, protected learning environment for children and is convenient for parents attending the College. Inquiries should be directed to Child Care Director, 3485 College Road, Nelsonville OH 45764-9586. Telephone 614 753-9404.

Entry Center

The Entry Center provides services to non-traditional students. The Center serves as a resource for individuals, groups and organizations to inquire and obtain information about Hocking College's educational opportunities for non-traditional students as well as a location for initiating the learning process by enrolling in courses.

Food Service

Full meals and snacks are offered at several locations on campus by private vendors. Meal tickets may be purchased. Further information is available by contacting the Restaurant and Deli, 614 753-2770.

Fresh Start

The Fresh Start program provides an opportunity for students who previously had academic difficulties to successfully return to the College. Fresh Start assists students in reversing the complications of poor academic standing.

Health Center

The Health Center provides routine and emergency services for minor medical conditions and accidents. The Center is staffed by a registered nurse who acts under the direction of a local physician. Students are asked to provide a medical history and written authorization for emergency treatment. Claim forms regarding the student health insurance program are available at the Health Center.

Hocking College Experience

The HC Experience, Hocking's student orientation program, provides services and assistance to new students in their transition to Hocking College. The orientation program also acquaints students with the purposes and programs of the College.

HC Experience days are schedule each quarter and all new students are expected to attend. Students meet with faculty and staff and learn about academic and student life at the College. For more information, contact Student Affairs.

Housing

Hocking College is the only technical college in Ohio offering on-campus residential facilities. Hocking Heights Residence Hall, an on-campus dormitory, accommodates up to 325 students. Hocking Heights has made a commitment to the quality of life of every resident. Students must complete a Hocking Heights application, which is separate from the admission application, and return it to the Cashiers Office.

Many students move to the Nelsonville area while attending Hocking College. To assist with off-campus housing needs the College publishes an off-campus housing guide. The Housing Office assists students with on- and off-campus housing needs.

Job Placement

The Placement Office connects students and alumni with prospective employers. Throughout the year, representatives from business and industry visit the campus to interview students. Students are assisted with the job search process, resume writing and interviewing skills. The Placement Office is located in Student Affairs.

Learning Labs (PACE)

PACE (Personally Accelerated Career Education) instruction is offered in the learning labs. Special services available through these labs include flexible course scheduling for students with job and family commitments and a flexible rate of learning for those who choose to move rather quickly or slowly through a course. Students learn through written and audio-visual materials that are individualized and competency based. They also receive one-on-one assistance from instructors. The Reading Lab offers improvement programs in comprehension, vocabulary and word analysis.

Learning Resources Center

Library The Library is dedicated to building a collection that supports and implements the instructional programs of the college. It contributes to institutional objectives by acquiring, organizing and circulating books and other print materials and by providing reference service and bibliographic instruction. Though the collection reflects Hocking's technical programs, students discover resource materials to enhance learning activities as well as materials for recreational reading. Access to collections at other libraries is available through consortium memberships and on-line database services.

Media Center The Media Center houses an extensive collection of computer-assisted instructional software, videotapes, films, audio-cassettes, slides and filmstrips related to the different programs of students at HC. Individual carrels are equipped for audio-visual viewing, listening, and computer use.

News Network

Announcements and news for students are broadcast on the TV News Network. Monitors are located in the student lounge areas.

Perry County Campus

The Perry County Campus in New Lexington, Ohio, offers a variety of courses both day and evening. Students may attend classes on a full- or part-time basis. Information on courses offered at the Perry County Campus may be obtained by calling 614 342-3337.

Phi Theta Kappa

Phi Theta Kappa, an academic honorary fraternity, provides opportunities and services for outstanding students. Students are invited to become members in this national organization which serves the College and the community. For more information, contact Student Affairs.

Student Activities

Hocking College offers a wide variety of recreational activities. The intramural program includes competition in flag football, indoor and outdoor soccer, volleyball, tennis, softball, basketball, bowling and golf. Facilities include the Recreation Center, the Student Center, tennis courts, softball fields, football/soccer fields, fitness trails, basketball courts, weight room, fitness exercise room, full locker room facility and student lounge with a big screen TV.

Outdoor recreation is plentiful in Southeastern Ohio. Within a short drive are five state parks and Wayne National Forest. Students interested in hiking, fishing, hunting, camping, rappelling and boating have hundreds of acres of Ohio countryside to enjoy. The 1,400-acre campus is criss-crossed with hiking and horseback riding trails.

A number of student organizations, including technology-related clubs, special interest groups and the Student Senate, sponsor a variety of student activities throughout the year.

Student Guide

A student guide describing services, academic procedures, college rules and regulations is available in Student Affairs. Students are encouraged to obtain a copy and to become familiar with the information provided.

Student Health Insurance

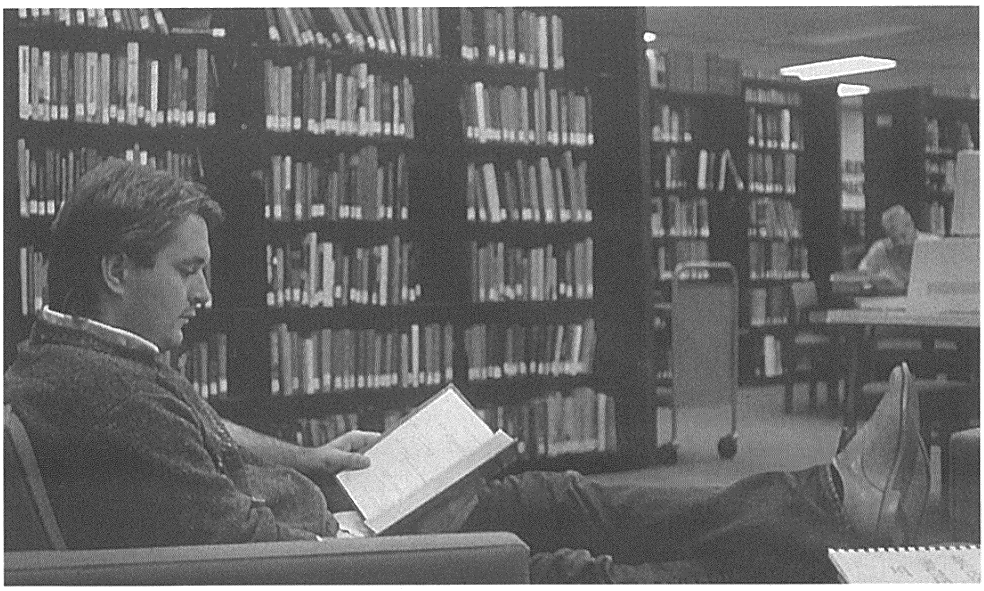
The college offers a comprehensive health and accident group major medical insurance policy designed to supplement the services provided by the college Health Center. This insurance is mandatory for all students carrying six or more credit hours unless the student completes a waiver indicating that comparable coverage is provided through a private or other health insurance plan. The college health insurance is not required for treatment at the college Health Center.

Student Leadership Opportunities

Future employers are interested in a prospective student's ability to plan, promote, supervise and evaluate projects and events. Participation in the Student Senate, a technology club or special interest group offers the opportunity to learn important, marketable skills in a supportive, enjoyable environment.

Testing Center

The Testing Center provides the opportunity for supervised testing outside the classroom and gives added flexibility to busy schedules.



Transition Program and Center

The Transition Program provides a program and center enabling students access to a variety of instructional services designed to promote success in college and to facilitate communication among programs for special needs students. The Transition Program coordinated many special learning assistance areas: PASS classes, English support services, women's issues programming, reading and basic writing and other support services for special needs students. A vital part of the program is the Transition Center. During selected open hours, students are provided with academic help through such methods as instructor assistance, computer software, audio visuals and printed materials. Students may access the Center through instructor referrals or as a walk-in.

Tutoring

Peer tutors are available to assist students in mastering general and technical course materials. Qualified tutors are chosen by technology instructors to tutor students individually or in groups. Students interested in these services should contact the General Studies Department, the Transition Center or Academic Advising.

Veterans Assistance

Hocking College is approved for the training of veterans. The Veterans' Affairs Office is an important link between the student, the college and the Veterans Administration. The VA Office provides information regarding VA educational benefits, assists with the necessary paperwork and aids veterans in adjusting to college life. Federal laws governing the eligibility for educational benefits are strict, and veterans planning to attend Hocking College should contact the VA Office as far in advance of their anticipated enrollment as possible.

Special Programs

Alternative Education

Hocking College's Center for Alternative Education recognizes that students' ages, backgrounds and career interests may vary widely. Since each student is different, preferred methods of learning also differ. The Center for Alternative Education meets these varying needs through special programs and courses outside the boundaries of traditional classroom instruction. Included in CAE's offerings are support services for non-traditional, low-income, handicapped and returning adult students.

Cooperative Education (Coop) Programs

Coop programs offer students the opportunity to combine paid work experience and college instruction. A number of coop programs are offered at the college. Students alternate working in a business/industry setting relating directly to their program of study with taking classes at the college.

Customized Industry Training

Hocking College can provide technical courses on the premises of private and governmental agencies as part of its outreach program. Courses may be conducted day or evening, depending on the needs of the agency or business requesting the service. An alternative to conducting a full course is the on- or off-campus short course, which provides course work in a concentrated time frame. Examples include the International Homicide Investigation Seminar and seminars in Natural Gas Vehicle Conversion and Powerhouse computer training.

Evening College

Courses and programs offered through Evening College prepare individuals for technical careers and provide technology updates. Evening courses are an alternative to regularly scheduled day courses. Classes after 5:30 PM make it possible for individuals with job and family commitments to attend college.

Several associate degree and certificate programs may be completed entirely through Evening College:

Associate Degree Programs

Accounting
Business Management
Human and Correctional Services

Certificate Programs

Accounting Clerk
Accounts Payable/Accounts Receivable Clerk
Juvenile Corrections Management Specialist
Massage Therapy

Activities Therapy
Advanced Cardiac Life Support
Advanced EMT-A
Baking
Bartender
Basic Trauma Life Support
Broadcast Production
Coding Clerk
Computer Applications for Business Owners
Cost Clerk
EMT-A
Hazardous Materials
Health Information Management Clerk
Income Tax Preparation
Microcomputer Accounting
Non Profit Accounting
Payroll Clerk
Pediatric Life Support
Practical Nurse
Purchasing Agent
Real Estate
Red Cross Standard First Aid Instructor
Refrigerant Technician
Running a 12 Lead EKG
Safety and Sanitation
Small Business Specialist
Volunteer Fire Fighting
Wildlife Control
Word Processing

Hocking Institute for Minority and International Programs

This institute is part of the Hocking College Affirmative Action program and is largely comprised of community volunteers. The institute offers specially designed outreach and support services and assists in preparing minority and international students for the opportunities and challenges at Hocking.

Hocking Management Institute

The Hocking Management Institute serves the special educational interests of those who have managerial or other professional responsibilities and wish to simultaneously pursue a college degree or professional development. The full degree program leads to an Associate Degree in Business Management or an Associate of Technical Studies degree. Advantages includes a special advising system, streamlined methods for taking courses and credit for prior learning gained through experience. Participants may choose the HMI Certificate which is part of the degree program and consists of courses covering topics relevant to managers.

National Ranger Training Institute

The National Ranger Training Institute (NRTI) offers a series of certificate programs. The National Park Service/Fish and Wildlife Service Seasonal Officer Training program is designed for persons interested in seasonal positions with the National Park Service (NPS) or seasonal refuge officer positions with the Fish and Wildlife Service (FWS). The Seasonal Officer Training program is offered quarterly and prepares participants to perform law enforcement activities in areas administered by the NPS and the FWS. The Seasonal Officer Training program is sanctioned by the U.S. Department of Interior. Other certificates offered by the NRTI include Vertical Rope Rescue, NASAR Managing the Search Function, Wildfire Management and Emergency Medical Technician-Ambulance (EMT-A) Training, as well as 20 other individual modules.

Ohio Peace Officer Basic Training

This program provides state mandated training for those interested in employment as law enforcement officers in Ohio. Applicants must hold a current commission from an Ohio law enforcement agency or political subdivision. Topics include patrol techniques, legal concerns, firearms training and general law enforcement.

Open Entry

Students may start classes any day the college is open in a number of general and technical programs.

PACE

Personally Accelerated Career Education (PACE) is a unique instructional method which allows students to enroll in selected courses any time the college is in session and to proceed through the course work at their own rate. Students choose instructional times most convenient to individual schedules - day or evening. PACE offerings include Communication, Math, Social Science, Business, Accounting, Drafting, Nutrition/Dietetic, Typing, Physics, Chemistry and First Aid/CPR courses. The PACE labs are staffed with full-time instructors who work with students on a one-to-one basis as needed.

Portfolio Development

Portfolio Development gives students the chance to earn course credit for learning based on non-college experience and training acquired before entering Hocking. The program helps both new and returning college students who have skills developed through employment, military or community experience. Students identify and document their prior learning as it relates to specific courses and submit the completed portfolio for assessment. Credits are granted directly, without taking the courses, on the basis of a satisfactory assessment evaluation.

Public Safety Services Training Center

This training center offers training and continuing education for emergency medical, fire, law enforcement and human and correctional services personnel. Programs may be offered at Hocking College or at the work site.

Quest for Success

Quest for Success is designed especially for new students to prepare them for college. Courses include college life, effective listening, study skills, interpersonal communications and a recreation program.

Second Season

Second Season offers a variety of courses, workshops and seminars beginning in October.

Vehicular Fuels Institute

The Vehicular Fuels Institute is a training and resource center providing instructional, consulting, applied research, testing, data collection and analysis and services related to alternative fueling of vehicles. The Institute has evolved in response to pressing national needs related to clean air, shortages of traditional fuels and technological shifts in conversion to dual fuels or dedicated alternative fuel operation; service, safety and operation of alternatively-fueled vehicles; compressor station design, operation and maintenance; and data collection, testing and analysis on a national basis related to performance of alternatively-fueled vehicles.

WIN Careers

Women in Non-Traditional Careers (WIN) encourages and assists women in entering and completing technical programs in non-traditional career areas.

HC Means Business

Businesses owned and operated by the College and student-run corporations provide a wealth of business and hands-on experience.

Campus Safety

The Department of Campus Safety is a full-time, around-the-clock security service for Hocking College and is also available to private businesses or institutions. Assistance is provided to local law enforcement agencies, community and civic groups and at college-related events which benefit from traffic control, investigative assistance and other security services.

Forest Management

With faculty supervision, Forestry and Timber Harvesting students cruise, buy, cut and sell timber and operate forest management and timber stand improvement programs for a variety of clients in the area.

Friendship Pottery

The Friendship Pottery Outlet in Nelsonville is run by Business Management students and was initiated through a connection with Friendship Pottery in Roseville, Ohio.

Gittinger Assessment Center

The Gittinger Assessment Center staff uses a variety of standardized assessment instruments to determine preferred learning styles, interests, attitudes and achievement levels of each student. From these processes, students gain self-knowledge and faculty and staff are aided in helping students focus on career and development plans. These same assessment instruments may be used to provide services to business, industry, agency or education professionals.

Hocking Special-T's

A student run business in design application on t-shirts and sweatshirts for various technologies, intramural teams and outside businesses and agencies.

Quality Inn Hocking Valley

The Quality Inn Hocking Valley is a full-service public facility on Hocking's campus. Culinary Arts and Hotel/Restaurant Management students learn each aspect of the business by rotating through job assignments not only as students, but as part-time employees.

Uniglobe Travel Agency

The Uniglobe Travel Agency is a full-service travel agency in Nelsonville. The Agency allows students to work under the supervision of travel professionals.

Wildlife Products

Wildlife Products is a student-run profit center providing on-campus employment for Natural Resources and Business students. Several types of birdfeeders and houses are constructed and sold to state departments of natural resources and the general public.

HC and the Community

Welcome to Nelsonville

Nelsonville is an historic community rich in the history of Southeastern Ohio and the Hocking Valley. The area is home to approximately 5,000 people. Restored buildings and shops line the Public Square where a turn-of-the-century fountain marks the center of town. Forested hills surround the town and farmhouses dot the countryside.

The area's climate varies with the seasons. Warm, humid summers are followed by clear autumn days and cool nights. Winters are cold and damp with occasional snow. Spring can be changeable and wet. Summer highs average in the 80's and winter temperatures are usually in the 20's and 30's.

Hocking Valley Scenic Railway

Visitors can board old Engine 33 in Nelsonville for a scenic ride across the campus and through the hills of Southeastern Ohio. The train runs on weekends from Memorial Day through October with special Christmas schedules. For more information call 513 335-0382.

Hocking Woods Nature Center

Hocking Woods Nature Center features an interpretive building, wildlife habitats, ponds, walkways, feeding stations and seasonal programming for the public and groups of school children. All activities at the Nature Center are designed and conducted by Recreation and Wildlife students majoring in Interpretive Services.

International Bowhunter Challenge

The International Bowhunter Challenge is held on campus each summer and is sponsored by the Hocking College Archery Club and the International Bowhunter's Organization. The competition is the third and final round which determines national champions in over ten major shooting classes for men, women and youth. More than 1,000 archers compete each year.

Paul Bunyan Show

The Paul Bunyan Show, Ohio's premier lumberjack and logging show, is held on campus the first Friday, Saturday and Sunday in October. Over 55,000 visitors come to see the latest lumbering equipment and special attractions such as student and professional lumberjack competitions, the Ohio Flat Pickin' Guitar Championship and to enjoy the popular Bunyan Burger. The Paul Bunyan Show is sponsored by Hocking College and the Ohio Forestry Association. Hocking students are involved in nearly every aspect of the show.

Robbins Crossing and Ohio-Hocking Forestry Museum

Exhibits at the Ohio-Hocking Forestry Museum, part of Hocking's campus park, illustrate the history of the forest industry in Southeastern Ohio. The museum also features Robbins Crossing, a restored living history community. Each weekend throughout the summer and fall, costumed Interpretive Services students recreate the people and setting of rural 19th century Southeastern Ohio for thousands of visitors, many of whom arrive aboard the Hocking Valley Scenic Railway.

Policies and Procedures

Attendance

The academic and laboratory demands of many technical programs make class attendance essential for success. Specific attendance requirements are established by the instructor for each course, and instructors are required to keep a record of absences for each student. Attendance is reported on Hocking College grade transcripts. Students receiving assistance from federal agencies such as the Veterans Administration and the Bureau of Vocational Rehabilitation are required by those agencies to attend classes regularly.

Auditing of Courses

Students may enroll in courses for no credit by registering on an audit basis. Students may not change from an audit to a credit basis after the quarter has begun. Regular fees must be paid for auditing a class.

Auto Registration and Parking

All vehicles driven by students to school must be registered with the Department of Campus Safety. A schedule of when and how to register vehicles may be obtained at the Campus Safety Office. Only properly registered cars will be permitted in HC parking areas. Students who register cars will receive a copy of parking regulations which are strictly enforced.

Cancellation of Classes

Only in rare circumstances will the college close due to inclement weather. There will be a number of times when the public schools might close while the campus remains open. Also, the campus might close only for morning classes and reopen for afternoon and evening classes. In the event of a forced cancellation, announcements will be made on major radio stations in the surrounding area. The stations will be notified by at least 7 AM. Students are asked not to call the college switchboard. Listen for specific instructions on one of these radio stations

Athens		**Nelsonville**	
WOUB	91.3 FM	WAIS	770 AM
WXTQ	105 FM	WAIS	89.1 FM
WATH	97 AM	WSEO	107.7 FM
Lancaster		**Logan**	
WHOK	95.5 FM	WLGN	98.3 FM
WLOH	1320 AM	WLGN	1510 AM

Change of Technology

Students may wish to change from one technology to another due to changing interests. Students should first consult their academic advisor and the current program coordinator as well as the coordinator of the program into which they wish to change. After this consultation, students should contact the Records Office to complete the required forms.

Grading

Hocking College uses a standard letter grade system and assigns quality points to each letter grade 'A' through 'D'. These letter grades are the only grades assigned quality points. The grade point average (GPA) is the sum of the quality points divided by the sum of all credit hours where letter grades are earned. The grade report contains both a cumulative (total to date) grade point average (CPA) and a quarterly grade point average (QPA). The letter grade symbols and their quality points used in the calculation of the GPA are as follows:

A	4.0	B-	2.7	D+	1.3
A-	3.7	C+	2.3	D	1.0
B+	3.3	C	2.0	D-	0.7
B	3.0	C-	1.7	F	0.0 (course failure)

The following grade symbols are not included in the calculation of the GPA:

NR	Not reported by instructor
S	Satisfactory
U	Unsatisfactory
AU	Audit
PR	PACE course in progress (converts to an F after two quarters)
CT	Continuing traditional course
I	Incomplete (converts to an F after one quarter)
W	Withdrawal
CE*	Credit by examination
CA*	Credit by advanced standing
CL*	Credit for life experience
T*	Transfer

*These credits are not officially granted until students have completed 12 regular credits. Consult the Student Guide for information and procedures.

The following symbols may appear before a course name on a grade report or transcript.

*	Course dropped from cumulative totals because of program change
X	Repeated course not figured into cumulative totals
CS	Course substitution

Change of Grade If students are unable to complete a course in the normal allotted time, they may be eligible to receive an 'incomplete' or progress (PACE) grade. Eligibility is determined by the course instructor. After completing the course, a grade change form, submitted by the instructor, is required.

Graduation Requirements

Associate Degree Requirements Successful completion (with passing grade) of the course requirements as specified on the technology curriculum sheet, with the following exceptions: course substitutions; credit by advanced standing; credit by exam; credit by life experience (portfolio development) and course waiver.

Students must earn a minimum of 30 credit hours at Hocking College or in a Hocking College approved program in addition to credits awarded by any special credit method (credit by examination, credit by advanced standing and credit by life experience through portfolio development), or credits transferred from other colleges or any combination of methods. Residency requirements are a minimum of 15 credits.

The attainment of a "C" (2.00) average in all technical courses for the specific degree program and a "C" (2.00) total overall cumulative point average toward the specified degree at Hocking College.

Completion and filing of an application for graduation form through Student Records. Payment of graduation fee.

Students must meet all financial obligations to the college before their diploma or certificate is issued.

Dual Degrees To obtain a second degree, a student must have credit for all the technical courses in the second degree program and they must also have the basic and general courses that are determined as necessary for the administrator of that technical program. The student must earn a minimum of 18 technical credits beyond the total required in the first associate degree program.

Probation and Academic Dismissal

Academic dismissal from the institution in all cases will be determined by the Vice President of Student Affairs. Students will be placed on academic probation if, after completing the following credit hours, they have failed to earn the corresponding minimum cumulative grade point averages.

Credits Attempted	Minimum Cumulative GPA
12-30	1.500
31-44	1.600
45-74	1.750
75 or more	2.000

In addition, students completing more than five credits and earning less than a 1.500 for any given quarter will be placed on probation. These minimum grade point averages insure progress toward graduation.

Students on academic probation two consecutive quarters who have not earned the required grade point average will be subject to academic dismissal. Students will be subject to academic dismissal if the cumulative grade point average falls below .750 at any time after completing 20 hours. Appeals of these policies should be made to the Vice President for Student Affairs.

Transfer Credit

Students who have completed course work at another institution should have their work evaluated for transfer credit at Hocking College. An official copy of a transcript should be sent to the Admission Office.

Students have successfully transferred credits earned at Hocking College to a number of institutions. The accepting institution is responsible for determining the transfer of credit. Students who want to transfer Hocking College credits to another institution should ask about the institution's transfer procedure.

Academic Terms

This section provides an explanation of academic terms used at Hocking College.

Academic Advising
The process by which a faculty advisor or counselor assists a student in scheduling a program of study and courses appropriate to the program, monitors the student's progress, assists with academic problems, answers academic questions or refers the student to appropriate resources.

Academic Probation
The status of a student who fails to achieve minimum grade standards.

Accreditation
The voluntary process of certification by which an institution or educational program maintains certain standards. Hocking College is accredited by the North Central Association of Colleges and Schools, and various programs at the college are accredited by specialized accrediting agencies.

Add a Class
The process of registering for additional classes when a student has already completed the registration process.

Advanced Standing Credit (CA)
The determination that a student, because of acceptable education, training or military experience, has a specified number of credit hours applicable to a degree program.

Associate Degree
A credential awarded to students who have successfully completed an educational program usually lasting two years.

Associate of Applied Business (A.A.B.)
Associate of Applied Science (A.A.S.)
These degrees are awarded in recognition of successful completion of two-year technical education programs which require a minimum of 90 credit hours enrollment in a specialized degree program aimed at preparing students for entry into specific occupations.

Associate of Individualized Study (A.I.S.)
A customized program for those whose career interests do not fit regular associate degree offerings. This program combines technical and general studies courses with prior learning experience.

Associate of Technical Study (A.T.S.)
The Associate of Technical Study is awarded for successful completion of an individually planned technical education program designed to respond to the needs for specialized technical education with an identifiable career goal. An area equivalent to 45 credit hours in technical studies may be formed either by a) a coherent combination of techjical courses selectively drawn from two or more technical programs currently offered or b) courses completed or trainin received by a student at other post secoindary institutions, vocational centers or other educational enterprises judged by the institution to be of college level. A minimum of 90 credit hours is required for the degree.

Auditing a Course
Enrolling in a course for no credit. A student who audits a course is not expected to carry out assignments or take examinations, and class attendance for the auditing student is optional. A student who audits a course pays the regular fee but receives a grade of AU which carries no credit.

Board of Trustees
Comprised of nine citizens living within Athens, Hocking and Perry counties, the Board of Trustees is a legal policy-forming board which owns the college building, grounds and equipment and determines college policy.

Board Policy
A written statement approved by the Board of Trustees of Hocking College outlining principles which direct of the operation of the college.

Certificate of Completion
Awarded for successful completion of a course or series of courses less than twelve credit hours leading to acquisition of specific knowledge and skills.

Certificate Program
Anintegrated series of courses within a technical program by which an individual acquires knowledge and skills that are directly applicable to entry-level employment. A certificate rpogram is completed in less times than a program leading to an associate degree.

Class Hour
Time scheduled as part of the instructional plan of most courses utilizing any combination of instructional methods such as lecture, directed discussion, demonstration or presentation of audio-visual materials.

Clinical Laboratory Hour
An hour in Health Careers technology programs in which students are assigned to a health-related agency because such a facility provides a realistic environment for learning.

College Procedure
A written statement approved by the college administration outlining the steps to be taken for carrying out Board policies or college processes.

Commencement
The college graduation exercise at which degrees and certificates are awarded to successful students.

Concurrent
Describes courses that must be taken at the same time.

Contact Hour
A 50- to 60-minute period of educational activities which is part of a course of instruction, whether in a classroom, a laboratory or at an off campus site.

Corequisite
A course which must be taken at the same time as another course.

Counseling
A professional service designed to guide students to a better understanding of themselves, their career goals, problems or potentials by using modern psychological principles.

Course
A planned series of educational experiences such as presentations, discussion and laboratory exercises centered around a particular subject and conducted by an instructor.

Course Description
A written statement briefly explaining the subject matter of a course.

Course Number
The two, three or four letter and three digits (for example, CER 203) which identifies a course offered by the college.

Course Substitution
The process of allowing students to replace a course in the curriculum with another course.

Credit by Advanced Standing (CA)
Students may submit materials documenting prior learning. Advanced standing credit is granted by the department director/dean.

Credit by Examination (CE)
Credit awarded to a student for learning gained from sources other than college classes and demonstrated by successful performance on a comprehensive test - either a standardized examination prepared by a national organization or one developed by a college instructor.

Credit for Life Experience (CL)
Credit awarded to a student for skills and knowledge acquired from experience on the job, in the community, in the military or through personal development or travel. Learning is described, documented and evaluated through portfolio development.

Credit Hour
A standard unit of measurement for college work. The number of contact hours per credit hour is determined by the type of activities (class hour, laboratory hour or clinical hour).

Curriculum
A series of courses, required and elective, the successful completion of which entitles students to a degree or certificate.

Deans' List
Recognition of outstanding academic accomplishment by students who achieve a 3.30 grade point average while completing at least 12 credit hours during any given quarter.

Degree
A credential conferred upon students by a college or university for the completion of a prescribed course of study. Technical and community colleges traditionally award the associate degree at the end of a program usually requiring two years. Four-year colleges confer the Bachelor's Degree for the completion of a program usually requiring four years. Graduate degrees are awarded for study beyond the Bachelor's and include the Master's and the Doctoral Degrees.

Drop a Class
The process of removing a class from a student's registration.

Elective
A course which may or may not be required in a degree or certificate but which the student selects freely or from a specified type or group of courses.

Faculty
The teachers of a college.

Financial Aid
Money provided to students from institutional, governmental or private sources in the form of grants, scholarships or loans. Financial aid helps students pay tuition or other costs of education.

Full-Time Student
A student who is enrolled in at least 12 credit hours.

GED Test
General Education Development Test for Ohio Certification of High School Equivalence. Individuals who have not completed a high school education may earn an equivalent by taking the GED test.

Grade Point Average
Mathematically computing academic performance by assigning a value (quality point) to each grade, multiplying the number of credit hours by the quality points, and dividing the product by the number of hours attempted.

Graduation Requirements
Those courses specified in a program of study which must be completed and the academic achievement level students must attain in order to qualify for a degree.

Grant
Money provided to students for reason other than scholarly achievement (usually financial need) to help pay tuition or other costs of education.

Intramural Activities
Organized pursuits of students at Hocking College, such as athletics, in which they compete with other students from Hocking.

Internship
On-the-job training in the workplace of a cooperating agency coordinated by an instructor.

Laboratory Hour
Time scheduled as part of the instructional plan for the practical application of the theory presented in courses. Laboratory activities include conducting experiments, perfecting skills and practicing procedures.

Occupational Certificate
Awarded for successful completion of twelve or more credit hours in which the individual acquires knowledge and skills that are directly applicable to entry-level employment.

Out-of-State Resident
A person whose permanent residence is outside the state of Ohio.

Part-Time Student
A student who is enrolled for less than twelve credit hours.

Portfolio Development
The process of documenting skills and knowledge acquired from experience on the job, in the community, in the military, through travel or through personal development.

Practicum
A course involving on- or off-campus work experience integrated with academic instruction in which learned concepts are applied to practical situations within an occupational field.

Prerequisite
A course which must be completed before a student is prepared to take a subsequent course in a sequence. If a course has a prerequisite, that requirement is indicated following the course description.

President's List
Selected students recognized by the President of the college for outstanding academic achievement, college service and demonstrated leadership ability.

Program of Study
A series of courses, required and elective, the successful completion of which entitles students to a degree or certificate.

Quarter
An identified portion of the academic year during which most courses are scheduled. Quarters at Hocking College are 11 weeks in length.

Registration
The process of selecting courses, choosing section by day and hour, paying tuition and submitting the schedule.

Satisfactory Progress
The level of achievement and advancement toward a degree or certificate required for continuing enrollment in the college and maintenance of eligibility for financial aid. The criteria for satisfactory academic progress is a specified accumulative grade point average for the number of hours earned. The criteria for satisfactory progress for financial aid eligibility is available from the Financial Aid Office.

Scholarship
Money provided to students as recognition of academic or special achievement to help them pay tuition or other costs of education.

Section
An individual class meeting at a particular time and assigned to a specific instructor. Example: Section 11 of Personal Finance meets from 12:00 to 12:50 Tuesday, Thursday and Friday.

Seminar
An educational experience in which a faculty member directs a relatively small number of students in discussion involving the development and/or review of concepts which are applied to practical situations.

Short Course
A brief instructional program.

Standards of Student Conduct
A code of behavior required of persons enrolled at Hocking College. See Student Code and Discipline in the Student Guide.

State of Legal Residency
Based upon the information on the student's admission application, the student is classified as an Ohio resident or an out-of-state student. Ohio residency requires that a person maintain a place of residence in Ohio for at least 12 consecutive months immediately preceding enrollment, be qualified to vote in Ohio and receive state welfare benefits and be subject to tax liability.

Student Employment
A program which permits students with demonstrated need to earn income by working in jobs on campus. When possible the assignment is relevant to a student's educational interest.

Student Load
The number of credit hours for which a student is registered during a quarter. A full-time load is a minimum of 12 credit hours per quarter.

Technical Certificate
Awarded for successful completion of a prescribed sequence of courses within a given technology in which the certificate is offered. The total credit hours are at least 50% of the number required for the associate degree in that technology. The technical component will be 27-33 quarter hours with the balance being in general courses.

Technology
The program of study in which a student is enrolled at Hocking College.

Transcript
A copy of a student's academic record listing courses taken, grades earned and degrees or certificates conferred.

Tuition
The fees charged for taking courses at the college and for using general services such as the library, counseling or the health center.

Undergraduate
A student enrolled in a technical or community college or the first four years of a university program, as opposed to a graduate student, who has completed the Bachelor's Degree.

Workshop
A brief intensive educational program.

Personnel

Board of Trustees

Richard Brandt
Jack Cline
Max Davidson
Frederick Good
Richard Guinther
Jack Maurer
Nevin Souers
Robert Sullivan
J. Thomas Hill

Administrative Staff

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Dr. Corrine Brown
Director of Management Information Systems

Dr. James Bowser
Vice President of Marketing/ Development

Dr. J. William Hill
Vice President of Fiscal Operations

Dr. Judith Maxson
Vice President of Academic Affairs

Dr. Roy Palmer
Vice President of Administrative and Special Services

Dr. Leif Hatlestad
Executive Personnel Officer

Dr. Roxanne DuVivier
Vice President of Student Affairs

Dr. Josh Lancaster
Dean of Academic Education

Dr. Steve Miller
Director of Counseling

Dr. Bonnie Prince
Dean of Alternative Education

Dr. Candace Vancko
Vice President of Enrollment Services

Karen Diller
Director of Financial Aid

Judith Sinnott
Director of Public Relations

E. Wilburn Smith
Director of Affirmative Action and Intercultural Programs

Automotive and Energy Technologies Faculty

Pat Walsh, 1991
Department Director, B.A., 24 years industrial experience.

Tony Ross, 1990
Technician, 11 years industrial experience.

Frank Talbott, 1995
Technician, 18 years related experience.

Richard Vieland, 1984
Instructor, A.A.S., 11 years industrial experience.

Steve West, 1991
Instructor, B.A., 18 years industrial experience.

Larry Wright, 1985
Technician, A.A.S., 20 years industrial experience.

Business Technologies Faculty

Nenna Davis-Maurath, 1986
Department Director/Business, M.A., 4 years teaching experience, 6 years related experience.

Mary Luttrell, 1992
Department Director/Hospitality (Acting), Masters Degree, 25 years related experience.

Dave Aiken, 1979
Instructor, M.Ed., 11 years previous teaching experience, 11 years related experience.

Sam DiLiberto, 1981
Instructor, M.Ed., 3 years previous teaching experience, 3 years related experience.

Randy King, 1984
Instructor, B.S., 15 years related experience.

Tom Landusky, 1992
Instructor, Associate Degree, 19 years related experience.

Thomas Lynch, 1979
Instructor, Licensed Public Accountant, M.Ed., 4 years previous teaching experience, 12 years related experience.

Janet McComb, 1974
Instructor, M.Ed., 2 years previous teaching experience, 7 years related experience.

Bill McDaniel, 1987
Instructor, B.S., 25 years related experience.

Barbara McGoye, 1983
Instructor, A.A.S., 12 years previous industry experience.

Pete Meyer, 1990
Instructor, 10 years related experience.

Marc Newman, 1977
Instructor, Ph.D., 12 years previous teaching experience, 6 years related experience.

John Noble, 1982
Instructor, B.A., 12 years related experience.

Kathleen Patton, 1986
Instructor, A.A.S., 3 years previous teaching experience, 10 years industry experience.

Anne Polenchar, 1982
Technician, B.S., 6 years previous industry experience.

Dorothy Poling, 1971
Instructor, M.Ed., 3 years previous teaching experience, 2 years related experience.

William Rood, 1988
Instructor, Licensed Broker, B.S., 17 years related experience.

Barbara Sunderlin, 1986
Instructor, M.Ed., 10 years previous teaching experience, 1 year related experience.

Doug Weber, 1986
Instructor, A.A.B., 4 years previous teaching experience, 13 years industry experience.

Jerry Yates, 1988
Manager of Student Run Businesses, 22 years related experience.

Engineering and Science Technologies Faculty

Pat Walsh, 1991
Department Director (Acting), B.A., 24 years industrial experience.

David Barger, 1979
Instructor, M.Ed., 2 years previous teaching experience, 2 years industrial experience.

Roxane Barrows, 1993
Instructor, Masters Degree, 3 years related experience.

Barbara Berry, 1983
Instructor, M.A., 15 years previous teaching experience, 1 year business experience.

Todd Davidson, 1983
Technician, A.A.S., 3 years industrial experience.

Ted Gabrykewicz, 1992
Instructor, Masters Degree, 16 years related experience.

Edward Geckler, 1982
Instructor, B.S., 1 year previous teaching experience, 2 years industrial experience.

Jerry Hart, 1991
Instructor, Ph.D., 7 years related experience.

Carol Hill, 1991
Instructor, Masters Degree, 5 years related experience.

B. Neil Hinton, 1989
Instructor, B.S., 21 years industrial experience.

Lindell Holtzmeier, 1977
Instructor, Ph.D., 7 years previous teaching experience, 5 years industrial experience.

Bruce Jones, 1989
Instructor, M.S., 9 years previous teaching experience.

Gail Jordan, 1986
Instructor, M.S., 1 year previous teaching experience, 16 years industrial experience.

Lisa Ketron, 1991
Instructor, Masters Degree, 10 years related experience.

Sue Latz, 1986
Instructor, Ph.D., 5 years previous teaching experience.

Jerry McClain, 1987
Instructor, A.A.S., 4 years related experience.

Sharon Morel, 1980
Instructor, M.Ed., 4 years previous teaching experience.

Gus Morris, 1984
Instructor, A.A.B., 1 year industrial experience.

Becky Reynolds, 1984
Instructor, Masters Degree, 13 years related experience.

Bill Schaller, 1990
Instructor, Masters Degree, 21 years related experience.

Jeff Stickler, 1991
Instructor, Bachelors Degree, 3 years related experience.

Harry Tompkins, 1983
Instructor, B.S., 7 years industrial experience.

Marcia Welch, 1993
Instructor, Associate Degree, 1 year related experience.

Ken Wiseman, 1993
Instructor, Bachelors Degree, 12 years related experience.

General Studies Faculty

Claudette Stevens, 1979
Department Director, M.S., 4 years previous teaching experience, 3 years related experience.

Rita Bennett, 1989
Instructor, M.S., 2 years previous teaching experience, 2 years related experience.

Linda Bitters, 1987
Instructor, M.A., 3 years previous teaching experience, 3 years related experience.

Farrell Brody, 1989
Instructor, Masters Degree, 17 years related experience.

Jeanne Burgie, 1973
Instructor, M.A., 6 years previous teaching experience.

Andrea DeMott, 1990
Instructor, Masters Degree, 2 years related experience.

Jane Fuller, 1991
Instructor, Masters Degree, 2 years related experience.

Gerald Horvath, 1980
Instructor, M.A., 14 years previous teaching experience, 6 years related experience.

Randy Lawrence, 1993
Instructor, Masters Degree, 13 years related experience.

Annabelle Mathis, 1979
Instructor, M.A., 11 years previous teaching experience.

Nancy McDaniel, 1990
Instructor, Masters Degree, 8 years related experience.

Florence McGeoch, 1973
Instructor, Ph.D., 5 years previous teaching experience.

Applewhite Minyard, 1993
Instructor, Masters Degree, 3 years related experience.

Deni Naffziger, 1984
Instructor, M.A., 3 years previous teaching experience.

Bridget Nelson, 1981
Instructor, M.A., 3 years previous teaching experience, 3 years related experience.

Ruth Reilly, 1987
Instructor, M.S., 4 years previous teaching experience, 15 years related experience.

Judy Rotkis, 1982
Instructor, M.Ed., 3 years previous teaching experience, 6 years related experience.

Cynthia Runevitch, 1975
Instructor, M.A., 5 years previous teaching experience, 2 years related experience.

Carla Ryan, 1992
Instructor, Masters Degree, 2 years related experience.

Merilynne Smith, 1991
Instructor, Masters Degree, 19 years related experience.

Ellen Sostarich, 1981
Instructor, M.A., 5 years previous teaching experience.

Jim Wallace, 1984
Instructor, M.A., 6 years previous teaching experience, 6 years related experience.

Marc Wayner, 1975
Instructor, Ph.D., 1 year previous teaching experience.

Renee Williams, 1990
Instructor, Masters Degree, 1 year related experience.

Cindy Yeager, 1991
Instructor, Masters Degree, 6 years related experience.

Robert Young, 1993
Instructor, Masters Degree, 3 years related experience.

Health Careers Technologies Faculty

Nadine Goebel, 1969
Dean Allied Health and Nursing, R.N., M.Ed., M.S., 13 years previous clinical experience.

Don Allen, 1972
Instructor, B.S., 5 years related work experience.

Barbara Byrd, 1979
Instructor, R.N., M.Ed., M.S., 11 years previous teaching experience, 9 years clinical experience.

Marlene Donovan, 1975
Instructor, R.N., M.Ed., 2 years previous teaching experience, 14 years clinical experience.

Kathleen Garza, 1992
Instructor, Masters Degree, 4 years related experience.

Barbara Gaskell, 1980
Instructor, R.N., B.S., 6 years previous clinical experience.

Lois Highley, 1984
Instructor, R.N., B.S.N., 13 years previous clinical experience.

Dawn Holtzmeier, 1977
Instructor, M.S., 5 years previous teaching experience.

Sue Ipacs, 1989
Instructor, B.S.N., 12 years clinical experience.

Bethany Jagers, 1991
Instructor, Masters Degree, 10 years related experience.

Tammy Keith, 1988
Instructor, Masters Degree, 11 years related experience.

Alana Josph-Kinzelman, 1979
Instructor, R.N., B.S.N., 11 years previous clinical experience.

Carol Klinger, 1985
Instructor, A.R.T., A.A.S., 5 years related work experience.

Victoria Knoderer-Cote, 1984
Instructor, R.N., B.S.N., 14 years previous clinical experience.

Karen Lewis, 1988
Instructor, R.R.A., B.S., 20 years related work experience.

Janet Marshall, 1984
Instructor, R.N., M.S., 11 years previous clinical experience.

Lynne Peterson, 1981
Coordinator, R.N., M.Ed., 12 years previous clinical experience.

Kathy Potts, 1986
Instructor, R.D., L.D., B.S., 3 years previous clinical experience.

Jane Powhida, 1975
Instructor, R.N., M.S., 1 year previous teaching experience, 7 years clinical experience.

Rita Preston, 1985
Instructor, R.N., B.S.N., 8 years previous clinical experience.

Jennifer Reilly, 1980
Instructor, R.N., M.Ed., 13 years previous clinical experience.

Martha Skeeles, 1986
Instructor, M.S., 4 years teaching experience, 3 years related experience.

Bonnie Smith, 1992
Instructor, Masters Degree, 11 years related experience.

Margaret Sprague, 1980
Instructor, R.N., M.Ed., M.S., 27 years previous clinical experience.

Barb Summers, 1986
Testing Center Monitor.

Constance Thayer-Wolf, 1983
Instructor, R.N., B.S.N., 8 years previous clinical experience.

Nancy Vandervoort, 1987
Instructor, M.A., 5 years previous teaching experience.

Molly Weiland, 1983
Coordinator, R.N., B.S.N., 9 years previous clinical experience.

Marianne Weiss, 1977
Instructor, R.N., M.Ed., 12 years previous clinical experience.

Kathy West, 1972
Instructor, C.M.A.-C., M.Ed., 2 years related clinical experience.

Natural Resources Technologies Faculty

Russell Tippett, 1975
Dean, M.Ed., 11 years related experience.

Ronald Black, 1973
Instructor, M.S., 3 years previous teaching experience, 15 years related experience.

Jackie Clark, 1983
Technician, A.A.S.

Larry Coon, 1988
Instructor, M.Ed., 8 years previous teaching experience, 4 years related experience.

David Enterline, 1968
Instructor, M.S., 2 years previous teaching experience, 4 years related experience.

Karen Enterline, 1971
Instructor, M.Ed., 1 year previous teaching experience, 3 years related experience.

Mark Fick, 1981
Technician, A.A.S., 9 years related experience.

Bradford Harter, 1968
Instructor, B.S., 1 year previous teaching experience, 2 years related experience.

Ned Maxson, 1990
Instructor, Masters Degree, 4 years related experience.

Ralph Moran, 1981
Instructor, M.Ed., 2 years previous teaching experience, 2 years related experience.

Tim Murphy, 1990
Instructor, Bachelors Degree, 13 years related experience.

Bill Peneston, 1991
Instructor, Masters Degree, 1 year related experience.

William Perine, 1969
Instructor, B.S., 1 year previous teaching experience, 5 years related experience.

Robert Placier, 1981
Instructor, B.S., 10 years related experience.

Dennis Profant, 1990
Instructor, Masters Degree, 6 years related experience.

Tina Romine, 1988
Technician, Certified American Riding Instructor, 7 years related experience.

Steve Swayne, 1987
Chief Operations Executive, National Training Institute, A.A.S., 7 years previous teaching experience, 4 years related experience.

Donna Szuhy, 1984
Instructor, M.A., 10 years previous teaching experience, 11 years related experience.

Don Thompson, 1970
Technician, A.A.S., 1 year related experience.

David Wakefield, 1986
Instructor, Certified Tree Surgeon, 18 years related experience.

Peter Woyar, 1974
Instructor, M.Ed., 2 years previous teaching experience, 20 years related experience.

David Ziegler, 1978
Instructor, M.S., 2 years previous teaching experience, 8 years related experience.

Public Safety Services Technologies Department

Nenna Davis-Maurath, 1986
Department Director, M.A., 4 years previous teaching experience, 6 years previous industry experience.

Steve Barron, 1990
Instructor, Associate Degree, 10 years related experience.

Joel Bitters, 1980
Instructor, E.M.T.-P., A.A.S., 5 years related experience.

Becky Fritsche, 1990
Instructor, Masters Degree, 10 years related experience.

Lawrence Hatem, 1989
Instructor, B.S., 25 years related experience.

John Peters, 1975
Instructor, E.M.T.-A., 8 years previous teaching experience, 10 years related experience.

George Petrovay, 1984
Instructor, A.A.S., 13 years previous teaching experience, 5 years related experience.

Calvin Price, 1981
Instructor, E.M.T.-P., A.A.S., 5 years related experience.

Mark Puhl, 1974
Instructor, Asssociate Degree.

Rufus Thomas, 1991
Instructor, Masters Degree, 10 years related experience.

Richard Vade Bon Coeur, 1993
Instructor, Bachelors Degree, 17 years related experience.

Administrative Support

Cindy Baden, 1977
Administrative Assistant, Office of the President.

Bunnie Begley, 1985
Administrative Assistant, Business and Public Safety Services Department.

Sharon Bowers, 1979
Instructional Scheduling Technician.

Joyce Cagg, 1975
Personnel Assistant, Personnel/Staff Development Office.

Connie Cassady, 1982
Administrative Assistant, NRTI.

Carol Dawley, 1989
Administrative Assistant, Hospitality.

Cindy Dillinger, 1986
Secretary, School of Natural and Ecological Sciences.

Connie Elliott, 1982
Administrative Assistant, Vice President of Marketing and Development.

Karon Fick, 1975
Executive Secretary, Engineering and Science Technologies Department.

Kathy Freer, 1987
Executive Secretary, Automotive and Energy Department.

Carolyn Highland, 1983
Administrative Assistant, General Studies Department.

Tanya Howe, 1984
Administrative Assistant, School of Nursing and Allied Health.

Alice Howson, 1988
Personnel Clerk.

Barb McGhee, 1986
Word Processing Specialist.

Connie Mace, 1993
Secretary/Clerk, Nursing.

Tonya McCoy, 1993
Secretary, Intercultural Programs.

Bill Modzelewski, 1991
CAI Development Specialist.

Sharon Perry, 1974
JTPA Processing Coordinator.

Gracie Pfaltzgraf, 1980
Word Processing Specialist.

Ginny Puhl, 1975
Administrative Assistant, Academic Affairs.

Steve Roley, 1994
Manager, Uniglobe.

James Simmons, 1994
Travel Agent, Uniglobe.

Darlene Tipple, 1987
Administrative Assistant, Evening College.

Linda Wineland, 1975
Executive Secretary, Administrative and Special Services and College Advancement.

Alternative Education

Kay Blackburn, 1994
Education Specialist, Students with Disabilities.

Mary Ann Kaiser, 1990
Learning Support Specialist.

Kim Shaner Powell, 1987
Education Coordinator, Students with Disabilities.

Julie Sullivan, 1990
OPTIONS Coordinator.

Thelena Turner, 1995
Secretary/Receptionist, Alternative Education.

Buildings, Grounds and Maintenance

Cheryl Carsey, 1978
Housekeeping.

Cliff Dearth, 1990
Groundskeeper.

Jerry Dexter, 1992
Housekeeping.

Chuck Dunlevy, 1991
Housekeeping, Hocking Heights.

Brad Graves, 1975
Superintendant, Buildings and Grounds.

Scott Hoobler, 1983
Coordinator, Grounds Department.

Joe McCollum, 1992
Maintenance.

Clara Miller, 1983
Housekeeping.

Kevin Moore, 1993
Housekeeping, Hocking Heights.

John Phillips, 1984
Head Housekeeper.

Jerry Robinette, 1991
Housekeeping.

Robert Seel, 1984
Air Quality and Maintenance Repair Technician.

Jody Six, 1987
Maintenance and Housekeeping.

Bill Whitlatch, 1993
Housekeeping.

Brent Williams, 1994
Housekeeping, Hocking Heights.

Enrollment Services

Gary Baldwin, 1979
Director of High School Relations.

Susan Eckels, 1984
Student Loan Coordinator.

Mary Hanning, 1980
Assistant Admissions Technician.

Jan Hartley, 1983
Financial Aid Counselor.

Nancy Holcomb, 1987
Red Carpet Secretary.

Bruce Keeney, 1988
Admissions Counselor/Coordinator of Perry County Recruitment.

Karen Metcalf, 1980
Red Carpet Specialist.

David Mingus, 1970
VA Consultant.

Julie Murphy, 1993
Data Entry/Outreach Clerk.

Eva North, 1981
Account Clerk.

Kathy Pitzer, 1991
Assistant Director of Financial Aid.

Brian Ralph, 1993
Assistant Director of Admissions.

Michele Storer, 1993
Admissions Technician.

Diane Wolf, 1981
Red Carpet Coordinator.

Fiscal Services

Jennifer Adams, 1986
Shipping, Receiving, Inventory Operator.

Julie Brown, 1993
Accounting Technician.

Frank Downhour, 1966
Facilities Consultant.

Don Gable, 1984
Business Manager.

Linda Gossman, 1975
Head Cashier.

Debbie Gyure, 1983
Clerk, Payroll and Accounts Payable.

Mary Hoskins, 1979
Assistant Cashier.

Mary Hutchison, 1973
Secretary/Office Coordinator, Fiscal Office.

Anna Johnson, 1986
Clerk, Accounting and Accounts Payable.

Carlena Kreitz, 1994
Clerk, Cashiers/Records Office.

Kathy Lauderback, 1983
Bookstore Manager.

April Loudner-Maffin, 1994
Bookstore Clerk.

Human Services

Laura Krieder, 1990
Program Director.

Beth Bancroft, 1990
Education Coordinator.

Betty Dalton, 1994
Clerical Support.

Karen Elliott, 1987
Project Technician.

Deborah Lax, 1992
Clerical Support.

Dick Mitchell, 1993
Curriculum Specialist.

Krista Moore, 1992
Transition Recorder.

Cindy Noble, 1993
Teaching Technician.

Karen Poore, 1992
Case Recorder.

Bill Rothman, 1972
Associate Project Director.

Norman Singer, 1992
Staff Training/Curriculum Specialist.

Tanja Vivo, 1992
Intake Specialist.

Intercultural Programs

Catherine Chapman, 1994
CASS Program.

Lyman Montgomery, 1994
Recruiter/Liaison.

Ariana Ulloa, 1990
Daily Project Coordinator.

Cliff Wasko, 1983
Foreign Student Advisor.

Trudy Williams, 1994
Secretary, CASS Project.

Library/Educational Technology Services

Elaine Dabelko, 1975
Director of Instructional Services.

Debbie Carter, 1979
Library Assistant.

Dorie Gilkey, 1978
Media Specialist.

Margy Kramer, 1971
Library Director.

Ron Luce, 1985
Instructional Development Coordinator.

Jean McCollister, 1993
Librarian.

Jose Perez, 1982
Supervisor of Technical Services.

Don Shaffer, 1988
Audio-Visual Technician.

Wendy Smith, 1994
Learning Resources Secretary.

Chris Weibel, 1985
Manager of Video Services.

Mark Yanitell, 1995
Television Operations Technician.

Management Information Services

Terry Begley, 1971
Director of Institutional Computer Services.

Pete Celaya, 1980
Computer Programmer/Operator.

Patty Jo Duffy, 1991
Records Clerk.

Brenda Lemity, 1971
Records Control Clerk.

Jan Six, 1991
Computer Operator.

Perry County Campus

Chuck Taylor, 1990
Director.

Marsha Bowser, 1990
Service Coordinator.

Deanna Kinsel, 1991
Counselor.

Marie Stedman, 1979
Secretary.

Regional Campuses

Josh Lancaster, 1974
Dean.

Sharen Bower, 1987
Secretary.

Vincent Branson, 1985
Prison Coordinator.

Frank Cain, 1993
Prison Coordinator.

Mike Cook, 1988
Prison Coordinator.

Shirley Gleich, 1993
Prison Coordinator.

Roger Hale, 1993
Instructor.

Dick Hatch, 1993
Instructor.

Roderic McBroom, 1993
Prison Coordinator.

Ralph Newkirk, 1993
Instructor.

Dave Smith, 1988
Prison Coordinator.

Clarence Steadman, 1993
Instructor.

Kristine Williams, 1992
Prison Coordinator.

Special Services

Brenda Adams, 1991
Customer Service Representative.

Kim Bonewit, 1970
Coordinator of Marketing/Customer Service.

Gary Boyer, 1975
Special Project Coordinator.

Terezie Cassels, 1991
Customer Service Representative.

Diana Crihfield, 1989
Printing Technician.

Deb Fraunfelter, 1978
Management-Seminar/Special Events.

Wesley Johnson, 1994
Bus Driver.

Rosie Smith, 1980
Director of Personnel Services.

Jose Torres, 1971
Director of Institutional Research.

Mike Ward, 1989
Printing Technician.

Student Affairs

Kellie Abele, 1992
Counselor/Coordinator of Transfer Articulation.

Judy Brady, 1972
Director of Assessment Services.

Elaine Bray, 1991
Supervisor, Security Officer.

Connie Clemens, 1990
Coordinator of Student Activities.

Zelma Coleman, 1973
College Advising Coordinator.

Cliff Eckenroad, 1986
Night Security/Facilities Manager.

Vickey Haller, 1995
Health Center Nurse.

Paul Harper, 1995
Coordinator of Residence Life/Facilities Management.

Roxana Herdlitzka, 1994
Housing Officer, Fiscal Agent.

Heath Hieronimus, 1994
Security Shift Supervisor.

Mark Kollar, 1994
Security Shift Supervisor.

Charlotte Lambert, 1970
Placement Office Coordinator.

Randy Light, 1989
Career Planning Counselor.

Bev Matheny, 1989
Department Secretary, Student Affairs.

Chris McDade, 1984
Coordinator of Recreational Programming.

Susan McGarvey, 1993
Administrative Technician.

Lynn Rouzer, 1992
Coordinator of Residence Life.

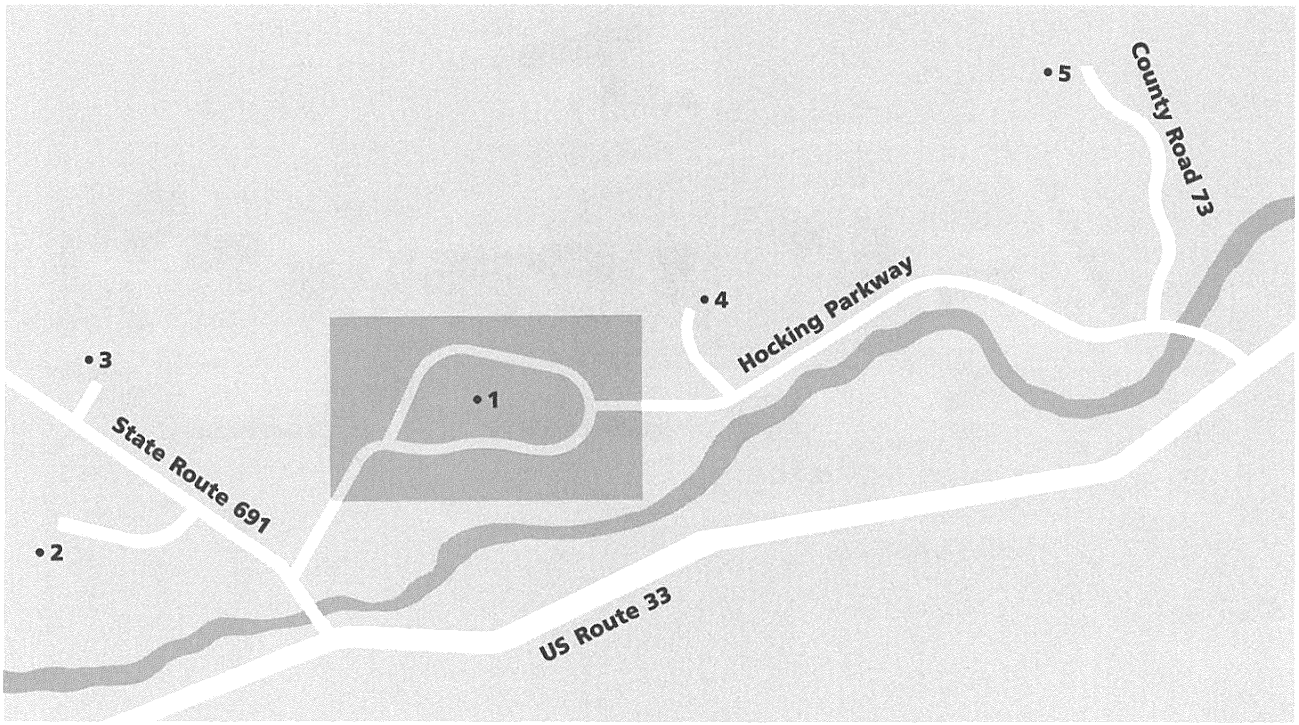
Bob Stockem, 1994
Coordinator of Residence Life Programming.

Dave Valkinburg, 1994
Campus Security Operations Coordinator/Campus Judiciaries Council.

Sue Wilkinson, 1985
Health Center Nurse.

David Winn, 1994
Counselor.

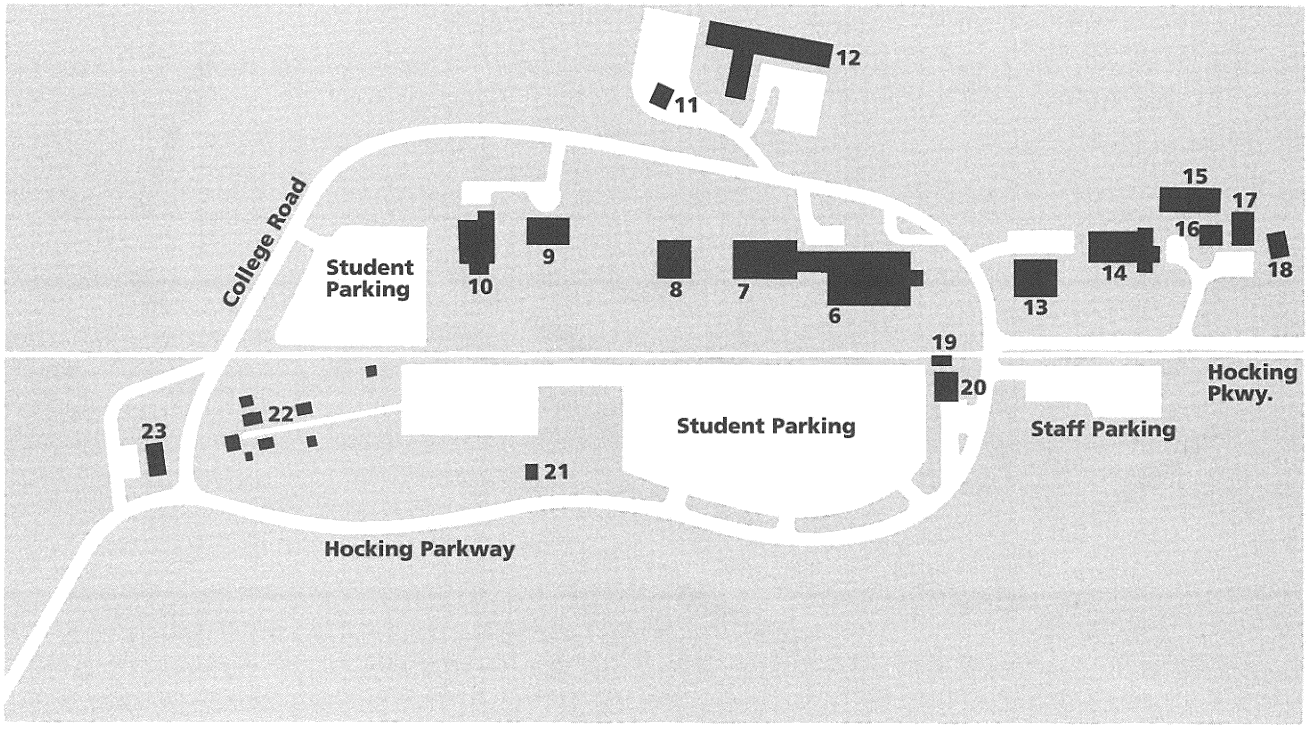
Area and Campus Maps



Hocking College is located near U.S. 33 and State Route 691 in Nelsonville, Ohio, about 60 miles southeast of Columbus. U.S. 33 can be reached from Ohio's major cities via Interstates 70 and 270 in Columbus. Consult a state highway map for state and county route connections with U.S. 33 in Southeastern Ohio.

The Quality Inn Hocking Valley, owned and operated by Hocking College, is located a quarter of a mile from the HC campus on State Route 691.

1. HC Campus
2. Quality Inn Hocking Valley
3. International Energy Center
4. Hocking Woods Nature Center
5. Hocking Woods Conference Center



6. John J. Light Hall
7. Oakley Hall
8. Recreation Center
9. Shaw Technical Lab
10. Nursing/Allied Health/Learning Resources Center
11. Student Center
12. Hocking Heights Residence Hall
13. Barton A. Holl Lab
14. Natural Resources Center
15. Horse Barn
16. Horse Barn
17. National Ranger Training Institute
18. National Ranger Training Institute
19. Campus Safety
20. Bookstore/Warehouse
21. Picnic Shelter
22. Robbins Crossing and Ohio-Hocking Forestry Museum
23. Day Care Connection

Course Descriptions

Accounting

ACC 100 **PACE**
Accounting I
3 Credits **Class 2** **Lab 3**
Introduction to the double-entry system of bookkeeping and the basic accounting cycle. The sole proprietorship is presented in the form of a retail establishment. Emphasizes individual effort through the use of a workbook and practice set.

ACC 100A
Accounting I A
1 Credit **Class 1** **Lab 1**
Basic theories and methods behind modern bookkeeping and accounting. Topics include general accounting theory, basic accounting concepts and the accounting cycle.

ACC 100 B
Accounting I B
1 Credit **Class 1** **Lab 0 .5**
Basic theories and methods behind modern bookkeeping and accounting. Topics include end of period procedures and accounting for merchandise. Prerequisite: ACC 100A.

ACC 100 C
Accounting I C
1 Credit **Class 1** **Lab 0 .5**
Basic theories and methods behind modern bookkeeping and accounting. Topics include cash control procedures and payroll accounting. Prerequisites: ACC 100A and ACC 100B.

ACC 101 **PACE**
Accounting II
3 Credits **Class 2** **Lab 3**
Basic bookkeeping and general accounting procedures. Includes accrual accounting, inventory methods and accelerated depreciation. Prerequisite: ACC 100.

ACC 101 A
Accounting II A
1 Credit **Class 1** **Lab 1**
Basic bookkeeping and general accounting procedures. Topics include sales and cash receipts, purchase and cash payments, vouchers and internal control, voucher systems and receivables. Prerequisite: ACC 100.

ACC 101 B
Accounting II B
1 Credit **Class 1** **Lab 1**
Basic bookkeeping and general accounting procedures. Topics include end-of-the period accounting for merchandising firms, accounts receivable, and accounting for promissory notes. Prerequisites: ACC 100 and ACC 101A.

ACC 101C
Accounting II C
1 Credit **Class 1** **Lab 0**
Basic bookkeeping and general accounting procedures. Topics include inventory evaluation, accounting for fixed assets, and partnership accounting. Prerequisites: ACC 100, ACC 101A and ACC 101B.

ACC 102 **PACE**
Accounting III
4 Credits **Class 3** **Lab 4**
Introduction to accounting with an emphasis on corporate organization. Includes accounting methods for capital stock and corporate bonds and manufacturing from an accounting viewpoint. Prerequisites: ACC 100 and ACC 101.

ACC 110 **PACE**
Accounting I Simulation
1 Credit **Class 1** **Lab 1**
A retail store work-simulation for applying concepts covered in ACC 100. Concurrent with ACC 100.

ACC 111 **PACE**
Accounting II Simulation
1 Credit **Class 1** **Lab 1**
A wholesale establishment work-simulation for applying concepts covered in ACC 101. Concurrent with ACC 101.

ACC 120 **PACE**
Payroll Accounting
3 Credits **Class 2** **Lab 3**
Principles and procedures of payroll record keeping and accounting. Includes taxes, insurance programs, optional deductions and the process of calculating and recording these items.

ACC 130 **PACE**
Business and Accounting Machines
2 Credits **Class 2** **Lab 2**
Introduction to the use of an accounting machine and application of basic machine skills to the solution of business and accounting problems. Includes exercises to develop a proficiency on the ten-key adding machine, calculator and electronic calculator.

ACC 140
Individual Taxation
3 Credits **Class 2** **Lab 3**
Study and application of federal income tax law. Emphasis on the preparation of federal income tax returns for individuals.

ACC 140A
Individual Taxation Module
0.5 Credit **Class 0.5** **Lab 0**
Designed for the individual wanting to learn how to file his/her own taxes. Areas of concentration will include forms EZ, 1040A, 1040 with Schedule A. Prerequisite: ACC 100.

ACC 150 **PACE**
Business Taxation
4 Credits **Class 3** **Lab 4**
In-depth study of the application of general tax rules and returns for business organizations.

ACC 162
Microcomputer Accounting
2 Credits **Class 1** **Lab 4**
Introduction to software packages available for basic accounting. Application of concepts introduced in introductory accounting courses and mastery of basic microcomputer skills. Prerequisite: ACC 100.

ACC 200 **PACE**
Basic Cost Accounting
3 Credits **Class 2** **Lab 3**
Introduction to the bookkeeping system used in job order costing including source of data used and internal control procedures. Prerequisite: ACC 100.

ACC 201
Advanced Cost Accounting
4 Credits **Class 3** **Lab 3**
Continuation of ACC 200. Emphasizes production data and cost flow, budgetary control and manufacturing cost standards. Prerequisites: ACC 100 and ACC 200.

ACC 210 **PACE**
Basic Cost Accounting Simulation
1 Credit **Class 0** **Lab 3**
A manufacturing work-simulation covering the job cost system. Application of concepts covered in ACC 200. Prerequisite: ACC 100.

ACC 220
Non-Profit Accounting I
4 Credits **Class 3** **Lab 3**
Fundamentals of accounting for the non-profit field. Covers all levels of local, state and federal government. Principles and practices are related to financial planning and control. Prerequisite: ACC 100.

ACC 220A
Non-Profit Accounting Module
1 Credit Class 1 Lab 0
Basic applied accounting for non-profit entities. Topics include fundamental principles of non-profit accounting and various types of funds. Prerequisite: ACC 100.

ACC 221
Non-Profit Accounting II
4 Credits Class 3 Lab 3
Completes the case study started in ACC 200-the modified accrual basis of accounting for municipalities. Internal service funds, enterprise funds and fiduciary funds are emphasized. General fixed asset group of accounts and general long-term debt group of accounts complete the series. Prerequisites: ACC 100 and ACC 220.

ACC 230
Intermediate Accounting I
3 Credits Class 2 Lab 3
Part one of a two-quarter course introducing principles and objectives of financial accounting and how they evolved. Includes practical present day application to accounts, statements and accounting theory. Prerequisites: ACC 100 and ACC 101.

ACC 231
Intermediate Accounting II
4 Credits Class 3 Lab 3
Advanced financial accounting theory and principles. Emphasizes in-depth comprehension of corporate financial statements. Prerequisites: ACC 101 and ACC 230.

ACC 250
Auditing
3 Credits Class 2 Lab 3
Introduces the advanced accounting student to the duties and scope of operations of the internal auditor. Field trips and practice audits demonstrate the practical aspects of internal control and the function of an auditor. Does not qualify the student to be internal auditors. Prerequisite: ACC 100.

ACC 290
Special Topics in Accounting Technology
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

ACC 291
Individual Study in Accounting Technology
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

ACC 292
Accounting Field Experience
1-3 Credits Class 0 Lab 12-48
On-the-job training in an accounting facility through special arrangements with an instructor.

ACC 293
Accounting Directed Practice
1-8 Credits Class 0 Lab 5-40
Directed practice instruction in the performance of a particular function from an assigned instructor, and observed and critiqued by the instructor in a repeat performance of that function.

ACC 294
Accounting Cooperative Work Experience
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

ACC 295
Accounting Practicum Seminar
1-3 Credits Class 1-3 Lab 0
Discussion of job-related concerns and assistance with practicum. Concurrent with ACC 296.

ACC 296
Accounting Practicum
3-5 Credits Class 1-3 Lab 16
Placement in an actual working environment for a minimum amount of time to gain experience before graduation. Concurrent with ACC 295.

ACC 297
Accounting Observation Hour
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

ACC 298
Accounting Internship
3-6 Credits Class 0 Lab 20-40
On the job training in the workplace of a cooperating agency. Coordinated by an instructor.

ACC 299
Accounting Internship Seminar
3 Credits Class 3 Lab 0
Discussion of internship experiences, objectives, and evaluation.

Automotive

AU 101 PACE
Automotive Technical Skills
3 Credits Class 2 Lab 3
For the student with little or no automotive technical skills. Covers automotive service basics of measurements, systems, terms, skills, tools and safety. This course is part of entrance pretesting required to enter the program.

AU 108
Natural Gas Vehicle Safety
1 Credit Class 1 Lab 1
Vehicle safety relating to safety shut-off valves and placement of components. Also covers refueling safety of natural gas vehicles.

AU 110
Automotive Engine Measurement and Skills
1-5 Credits Class 1-3 Lab 1-6
Engine rebuilding techniques including proper use of measuring devices such as micrometers, calipers and torque wrenches, documentation of measurements and use of machining tools to bring component hardware into specification.

AU 111
Service Management Orientation
4 Credits Class 3 Lab 3
Generating estimates and repair orders, shop scheduling, parts ordering and inventory control, dealing with customers, customer history and follow-up, shop business management, state and federal regulations and how to make a profit.

AU 112
Automotive Electrical Systems
1-4 Credits Class 1-3 Lab 1-4
Service and testing of starters, alternators, lighting systems, batteries and wiring components. Introduces ignition system components and their function.
Prerequisite: AU 101.

AU 113
Automotive Fuel Delivery Systems
1-4 Credits Class 1-3 Lab 1-4
Engine fuels and air/fuel delivery systems. Involves construction, operation and maintenance of system components. Prerequisite: AU 101.

AU 114
Steering, Suspension and Brake Systems
5 Credits Class 3 Lab 6
Diagnosis and repair of problematic chassis functions. Develops basic skills in diagnosis and repair of brake systems, suspension, and steering systems as well as alignment techniques. Application of service management techniques is included. Prerequisites: AU 101 and AU 111.

AU 115
Automotive Heating, Ventilation and Air Conditioning
4 Credits Class 3 Lab 4
Engine cooling systems and passenger compartment comfort controls. Interprets manifold gauge readings and diagnoses and repairs HVAC problems including drivability controls. Knowledge of auto electrical systems is required. Prerequisite: AU 101.

AU 201
Automotive On-Board Electronics
0.5-4 Credits Class 0.5-3 Lab 0-4
Design, principles of operations and construction of automotive ignition systems. Covers mechanical systems including coils, distributors, condensers, advance mechanisms and contact points; electronic systems including ignition timing, wiring and malfunctions; maintenance and troubleshooting. Prerequisites: AU 101, AU 112, AU 113 and AU 217.

AU 202
Brake Systems
4 Credits Class 3 Lab 4
Design, construction, operation, maintenance and troubleshooting of various chassis units and braking systems including power units, basic air units and diagonal braking systems.

AU 202A
Anti-Lock Brake Service Seminar
1 Credit Class 1 Lab 0
Designed for the journeyman technician who is encountering ABS equipped vehicles. Covers ABS operation and component design of popular ABS systems. TEVES, BOSCH, and the Kelsey-Hayes rear wheel anti-lock systems will be included.

AU 203
Standard Transmissions
4 Credits Class 3 Lab 4
Operation, construction and maintenance of selective sliding transmissions and over-drive transmissions. Includes gears, gearing, power flow, drive lines and differentials. Principles of operation, construction, maintenance, repair and troubleshooting for various makes of selective sliding transmissions and the manual transaxle.

AU 204
Suspension Systems
4 Credits Class 3 Lab 4
Wheel alignment, front suspension and rear suspension alignment.

AU 206
Auto Powertrain Component
1-5 Credits Class 1-3 Lab 1-6
Operation, construction and maintenance of automatic transmissions including the study of fluid couplings, torque converters, valve bodies, clutch and band operation and power flow. Automatic transaxle principles of operation, construction, maintenance and repair are also covered. Prerequisite: AU 101.

AU 207
Fleet Management and Supervision
3 Credits Class 2 Lab 3
An advanced course in which the student is responsible for daily shop operations, bookkeeping, profit and loss, inventory control, and customer follow-up. Use of data base systems is included. Prerequisites: AU 101, AU 111.

AU 215
Automotive Diagnostics and Performance Testing
5 Credits Class 4 Lab 4
Advanced course in diagnosing and correcting problems of the internal combustion engine. Instruction and laboratory use of diagnostic test equipment to solve practical drivability problems. Prerequisites: AU 101, AU 113 and AU 201.

AU 216
Alternative Fuels Conversion Systems
2-5 Credits Class 1-5 Lab 0-3
Application of natural gas as a clean burning alternative to traditional fuels. Includes vehicle conversion, fueling and maintenance of natural gas fueled vehicles. Prerequisites: AU 101, AU 112 and AU 113.

AU 217
Automotive Electrical Schematic
2 Credits Class 2 Lab 0
Reading and using electrical wiring diagrams to diagnose and repair electrical system problems. Lays the foundation for studies of on-board electronic components and computer controlled devices. Prerequisite: AU 101.

AU 218
Advanced Automatic Transmissions
5 Credits Class 3 Lab 6
Examination of hi-tech automatic transmissions and transaxles. Includes design, diagnosis, repair and dyno testing of automotive transmissions. Prerequisite: AU 206.

AU 240
Automotive Computers and Control Systems
4 Credits Class 3 Lab 3
Study and diagnosis of engine controlled computers, instrumentation computers and modern computerized devices.

AU 250
Automotive Service Excellence Seminar
1 Credit Class 1 Lab 0
Gives the automotive technician an opportunity to review test taking skills and prepare for the Automotive Service Excellence certification examinations. All automotive test areas and the new alternative fuels test will be covered.

AU 280
Automotive Alternative Fuels
2 Credits Class 2 Lab 0
An overview of automotive fuels, including electricity, natural gas, propane, methanol and ethanol, expected to help with environmental problems.

AU 290
Special Topics in Automotive Service Management Technology
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

AU 291
Individual Study in Automotive Service Management Technology
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

AU 292
Automotive Field Experience
1-4 Credits Class 0 Lab 12-48
On-the-job training in an automotive facility through special arrangement with an instructor.

AU 293
Automotive Directed Practice
1-8 Credits Class 0 Lab 5-40
Student in directed practice receives instruction in the performance of a particular function from an assigned instructor, and then is observed and critiqued by the instructor in a repeat performance.

AU 294
Automotive Cooperative Work Experience
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member. Includes at least one on-site visit during the quarter. Student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

AU 295
Automotive Practicum Seminar
1-3 Credits Class 1-3 Lab 0
Discussion of job-related concerns and assistance with practicum.

AU 296
Automotive Practicum
2-4 Credits Class 1-3 Lab 7
Placement in a working environment for a minimum amount of time to gain experience before graduation. Prerequisite: First year technical courses, concurrent with AU 295.

AU 297
Automotive Observation Hour
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

AU 298
Automotive Internship
3-6 Credits Class 0 Lab 20-40
On-the-job training in the workplace of a cooperating agency. Coordinated by an instructor.

AU 299
Automotive Internship Seminar
3 Credits Class 3 Lab 0
Discussion of internship experiences, objectives, and evaluation.

Basic Skills Development

BSD 010
Basic Skills Development I
3 Credits Class 3 Lab 0
Structured program to prepare for successful completion of the GED test. Exercises include writing skills, social sciences, science, mathematics, literature and the arts.

BSD 020
Basic Skills Development II
3 Credits Class 3 Lab 0
Continued study in writing, social sciences, science, mathematics, literature and the arts to prepare for GED examination.

BSD 030
Basic Skills Development III
3 Credits Class 3 Lab 0
Continued study in writing, social sciences, science, mathematics, literature and the arts to prepare for the GED examination.

Broadcasting

BC 108
Modern Electronic Media
3 Credits Class 2 Lab 3
History and advancement of modern electronic media including the development of electronic media from the invention of radio to the creation of high definition television. Provides exposure to all aspects of electronic media in today's electronic communication.

BC 109
Media Techniques
3 Credits Class 2 Lab 3
Evaluation of electronic media in education, business and entertainment industries. Includes analyzing work produced by industry professionals and script writing.

BC 110
Studio Production
3 Credits Class 2 Lab 3
Exposure to studio television production through extensive hands-on, practical application of equipment in multi-camera productions. Familiarization with audio and video technology including involvement with production from script to finished product.

BC 111
Applied Audio and Video Technology
1 Credit Class 0 Lab 3
Theory of operation, installation, minor repair and application of the most common audio and video equipment found in a small system audio and video production facility. Equipment availability, selection and purchasing will be addressed as well as small system design and installation. Includes videoconferencing technologies, basic equipment trouble-shooting and audio and video technical theory and production techniques.

BC 201
Audio/Video Systems I
4 Credits Class 3 Lab 3
Theory of operation of audio equipment found in any AM, FM or TV production facility. Practical experience in installation, alignment and repair of equipment such as cassette decks, cart machines, reel-to-reel tape recorders, audio mixing consoles and equalizing, processing and special effects devices. Prerequisite: EE 122.

BC 209
Audio/Video Systems II
4 Credits Class 3 Lab 3
NTSC color television signal. Processes of scanning and synchronization, creation of a compatible color signal and the timing, switching, distribution and transmission of that signal. Also includes video testing and measurement. Prerequisite: BC 201.

BC 210
Audio/Video Production I
3 Credits Class 2 Lab 3
Introduces a working knowledge of studio operations, remote video equipment, basic video editing, camera operation, lighting and audio recording. Provides an opportunity to produce television programs from script to the final edited video program.

BC 215
Audio/Video Production II
3 Credits Class 2 Lab 3
Explores electronic field production, time code editing, multi-track audio recording, and special video and audio effects. The student works as a crew member on college productions.

BC 216
Transmission Systems
4 Credits Class 3 Lab 3
Radio frequency (RF) aspects of broadcasting and telecommunications. Begins with electrical and radio frequency safety precautions and continues with an advanced study of amplitude modulation (AM) and angle modulation. Includes key communication circuits, transmission line theory, antennas and radio wave propagation. Prerequisites: BC 201 and EE 122.

BC 223
Equipment Maintenance
4 Credits Class 3 Lab 3
Design, installation, documentation and maintenance of complete broadcast and production facilities. Studio design, electrical distribution, grounding, shielding, air and power conditioning are all covered. Prerequisites: BC 209 and BC 216.

BC 230
Advanced Post Production
3 Credits Class 2 Lab 3
Extensive hands-on experience in video and audio post production. A/B roll editing, audio sweetening, video graphics and video disc mastering are some of the topics covered. Includes production of a demo videotape of skills for future job interviews. Prerequisite: BC 215.

BC 280
Current Topics and Technology
0.25-5 Credits Class 0.25-5 Lab 0-3
Familiarization with state-of-the-art broadcasting and telecommunications equipment and technologies.

BC 290
Special Topics in Broadcasting
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

BC 291
Individual Study in Broadcasting
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

BC 292
Field Experience in Broadcasting
1-4 Credits Class 0 Lab 12-48
On-the-job training in a broadcasting facility through special arrangement with an instructor.

BC 293
Broadcasting Directed Practice
1-8 Credits Class 0 Lab 5-40
The student in directed practice receives instruction in the performance of a particular function from an assigned instructor and then is observed and critiqued by the instructor in a repeat performance of that function.

BC 294
Broadcasting Cooperative Work Experience
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week. Prerequisites: BC 209, BC 215 and BC 216.

BC 295
Telecommunications/ Broadcasting Practicum Seminar
1-3 Credits Class 1-2 Lab 7-14
Discussion of job-related concerns and assistance with practicum. Prerequisite: BC 216.

BC 296
Broadcasting Practicum
2-4 Credits Class 1-3 Lab 8
The student is placed in an actual working environment for a minimum amount of time to gain experience before graduation. Prerequisite: BC 209.

BC 297
Broadcasting Observation Hour
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

BC 298
Broadcasting Internship
3-6 Credits Class 0 Lab 20-40
On the job training in the workplace of a cooperating agency. Coordinated by an instructor.

BC 299
Broadcasting Internship Seminar
3 Credits Class 3 Lab 0
Discussion of internship experiences, objectives, and evaluation.

Broadcasting /Telecommunications

BCTC 214
Communication Circuits
4 Credits Class 3 Lab 3
Circuits common within the broadcasting technology. Switching systems and arrangements, networking of audio, video, data, signaling, amplifiers, repeaters and impedance matching circuitry are presented from the schematic level. Includes AM, FM and Phase IC applications. IC applications including transmission lines, telephone systems, data communications, television systems, and two-way communications systems. Prerequisites: BC 209, BC 215 and BC 216.

BCTC 215
Fiber Optic Communications
4 Credits Class 3 Lab 3
Introduction to fiber optics and the physics of light, including the principles and characteristics of fiber optics and fiber optic communication. Includes modulation, multiplexing, and the fiber optic components that make up a communication system. Prerequisite: BCTC 221.

BCTC 221
Communication with Computers
4 Credits Class 3 Lab 3
Introduction to communication systems with computers including transmission codes and serial interfacing, the UART, and interfacing the 8085A microprocessor to the 8251A USART. The telephone set and telephone network is taught in regards to digital communications, including modems, protocols, LANs, error detection, error correction, error control and the effects of noise on digital communication systems. Prerequisite: EE 262.

BCTC 290
Special Topics in Telecommunications/ Broadcasting
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.**BCTC 291**
Individual Study in Broadcast/ Telecommunications
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

BCTC 292
Field Experience in Broadcast/ Telecommunications
1-4 Credits Class 0 Lab 12-48
On-the-job training in a broadcasting/ telecommunication facility through special arrangement with an instructor.

BCTC 293
Broadcast/Telecommunications Directed Practice
1-8 Credits Class 0 Lab 5-40
Directed practice instruction in the performance of a particular function from an assigned instructor, and then is observed and critiqued by the instructor in a repeat performance of that function.

BCTC 294
Broadcast/Telecommunications Cooperative Work Experience
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

BCTC 295
Telecommunications Seminar
1-3 Credits Class 1-3 Lab 0
Discussion of job-related concerns and assistance with practicum. Concurrent with BC 216.

BCTC 296
Telecommunications Practicum
1 Credit Class 0 Lab 7
The student is placed in a working environment for a minimum amount of time to gain experience before graduation.

BCTC 297
Broadcast/Telecommunications Observation Hour
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

BCTC 298
Telecommunications Internship
3-6 Credits Class 0 Lab 20-40
On the job training in the workplace of a cooperating agency. Coordinated by an instructor.

BCTC 299
Telecommunications Internship Seminar
3 Credits Class 3 Lab 0
Discussion of internship experiences, objectives, and evaluation.

Business

BUS 100 PACE
Small Business Management I
3 Credits Class 3 Lab 2
Principles of operating a business from the standpoint of ownership. Covers small business in the U. S., starting a business, problems in starting a business, management functions applied, financing and capital, physical plant, legal considerations, licenses and government regulations.

BUS 101 PACE
Small Business Management II
3 Credits Class 3 Lab 2
Continuation of principles of operating a business focusing on daily operations. Advertising/promotion, marketing, accounting/record keeping, cash flow, employment/payroll, insurance, contracts, purchasing/buying, security, management of time/priorities and handling problems. Prerequisite: BUS 100.

BUS 102 PACE
Principles and Practices of Business Management I
3 Credits Class 3 Lab 2
First in a two part series providing a comprehensive introduction to management theory and practice. Planning and organizing provide the major focus.

BUS 103 **PACE**
Principles and Practices of Business Management II
3 Credits **Class 3** **Lab 2**
Second in a two part series continues the examination of management theory and practice with an emphasis on current trends in management. Along with leadership and motivation, the course discusses both the individual and interpersonal processes contributing to this part of management. Prerequisite: BUS 102.

BUS 105
History of American Business
3 Credits **Class 3** **Lab 0**
Origins and development of modern American business. Emphasizes the nature of the economic, social and political environments, the manner in which such environments affect business policy and how lessons from the past relate to present business practices.

BUS 110
Marketing
3 Credits **Class 3** **Lab 2**
Fundamentals of modern marketing. Consumer behavior, marketing strategy, product pricing and promotion and distribution.

BUS 120 **PACE**
Personal Finance
3 Credits **Class 3** **Lab 0**
Consumer information on coping with major financial decisions in life including taxes, consumer credit, insurance and savings plans.

BUS 120 A
Personal Financial Planning
0.5 Credit **Class 0.5** **Lab 0**
Designed to assist the student with basic personal budgeting. Topics include investments, budgeting, taxation, credit, loans and insurance.

BUS 130
Sales I
3 Credits **Class 2** **Lab 3**
Introduction to the sales function in the retail sphere of operations including the selling background such as product, customer, competition analysis and the company; the selling process covering planning, the sales presentation, handling objections and questions, and closing the sale; the differences between industrial and retail selling with emphasis on retail selling; and sales management including construction of sales forces and program planning.

BUS 132
Sales II
3 Credits **Class 2** **Lab 3**
Practical aspects of selling including aspects of a sales presentation and preparation of sales planners. Prerequisite: BUS 130.

BUS 170 **PACE**
Fundamentals of Business I
3 Credits **Class 3** **Lab 2**
Basic areas involved in modern business. Overview of economics, business organization, marketing, production administration and personnel management. Topics include comparative economic systems, legal forms of business, promotion and distribution of goods and services and labor relations.

BUS 171 **PACE**
Fundamentals of Business II
3 Credits **Class 3** **Lab 2**
Overview of marketing channels and promotion. Includes examination of money and banking, financial management, securities, risk management, international business and entrepreneurship. Prerequisite: BUS 170.

BUS 175
Business Word Processing
2 Credits Class 1 Lab 4
Instruction to the alphanumerical keyboard including operation of a word processing software package.

BUS 180
Business Ethics
3 Credits Class 3 Lab 2
Ethical problems encountered in the business world through discussion of contemporary social issues facing business. Topics include individual work habits, employee responsibilities and community involvement.

BUS 200
Business Law
3 Credits Class 3 Lab 0
Legal limitations and other considerations faced by the business world. Areas covered include contract sales, business organizations and bailments.

BUS 201
Advanced Business Law
4 Credits Class 4 Lab 0
Real property, negotiable instruments, security transactions, insurance, bailments, wills and estates, trusts, agency and employment partnerships, private corporations and bankruptcy. Prerequisite: BUS 200.

BUS 210
Human Resources Management
3 Credits Class 3 Lab 2
Techniques of managing people and rules and laws regulating employment. The student should have an understanding of the principles of management prior to entering the course. Prerequisite: BUS 103.

BUS 211
Advanced Marketing
3 Credits Class 3 Lab 2
Examines complex applications of marketing theory. Emphasizes actual cases involving many well-know names and organizations. Prerequisite: Bus 110.

BUS 212
Human Resource Development
1-3 Credits Class 1-3 Lab 0
Approaches for developing skills of employees to match organizational needs. Includes assisting employees in making professional development plans; recognizing the relationship between employee careers and an organization mission, culture and operational goals; and techniques for making staff assignments, training, coaching and correcting the ineffective employee.

BUS 220
Industrial Marketing
3 Credits Class 3 Lab 1
Marketing strategy in industrial companies, key elements of strategy and the marketing of various industrial products. Emphasizes particular aspects of industrial buying behavior, market selection, product planning, pricing and distribution. Prerequisite: BUS 110.

BUS 230
Labor-Management Relations
3 Credits Class 3 Lab 2
Labor and management relations and the roles of management and unions in our society. The course is objective in its context and avoids being judgmental in presenting the parts currently played by labor and management in their struggle for progress in the work area.

BUS 240
Managerial Accounting
3 Credits Class 2 Lab 3
Managerial control and decision-making through the use of accounting methods. Emphasizes cost control, accounting for overhead, capital budgeting and inventory control. Prerequisite: ACC 100.

BUS 243
Business Systems Control
3 Credits Class 2 Lab 3
Operation and function of internal control in the modern business. Topics include auditing procedures, asset maintenance and special problems relating to security. Prerequisite: ACC 101 and BUS 240.

BUS 245
Lotus 1-2-3 for Business
3 Credits Class 2 Lab 3
Practical business and accounting applications of popular commercial software used to compile spreadsheets and data bases.

BUS 246
Advanced Lotus 1-2-3 for Business
3 Credits Class 2 Lab 3
Commercial software for specific business and accounting functions. Areas covered include decision-making, income taxes, financial calculations, personnel management and inventory control. Prerequisite: BUS 245.

BUS 250
Events Planning and Operations I
2 Credits Class 1 Lab 3
Development of public relation skills and distribute literature at information centers.

BUS 251
Events Planning and Operations II
2 Credits Class 1 Lab 3
Utilizing acquired skills while supervising, scheduling and managing a visitor information center.

BUS 260
Business Planning
2 Credits Class 1 Lab 3
Functions necessary to develop and start a business. Culminates in the submission of a business prospectus by each student. Prerequisite: Bus 101.

BUS 261
Emerging Organization Models
0.5-3 Credits Class 0.5-3 Lab 0
Perspectives on models for managing organizations. Standard management designs, plus an overview of emerging models including TOM, Japanese management, flexible manufacturing networks, virtual organizations, quality circles, worker teams, and others.

BUS 261A
Emerging Organization Models: Overview
0.5-1 Credit Class 0.5-1 Lab 0
Perspectives on models for managing organizations. Standard management designs, plus an overview of emerging models including TOM, Japanese management, flexible manufacturing networks, virtual organizations, quality circles, worker teams, and others.

BUS 261B
Emerging Organization Model: Applications
0.5-1 Credit Class 0.5-1 Lab 0
Application and examples of models for managing organizations, using one or more topics from BUS 261A.

BUS 261C
Emerging Organization Models: Project
1 Credit Class 1 Lab 0
Examination of topics in BUS 261A. Development of a project through research, interviews, travel, community or work site investigation, or other development initiative. Participant creates a final product or activity.

BUS 262
Changing Organization Contexts
0.5-3 Credits Class 0.5-3 Lab 0
Overview of the changing contexts in which modern organizations function: legal, ethical, political, economic, legislative, environmental, social, international, new demographics, technological, and new professional certification standards.

BUS 262A
Changing Organization Contexts: Overview
0.5-1 Credit Class 0.5-1 Lab 0
Overview of the changing contexts in which modern organizations function: legal, ethical, political, economic, legislative, environmental, social, international, new demographics, technological, and new professional certification standards.

BUS 262B
Changing Organization Contexts: Applications
0.5-1 Credit Class 0.5-1 Lab 0
Application and examples of models for managing organizations, using one or more topics from BUS 262A.

BUS 262C
Changing Organization Contexts: Project
1 Credit Class 1 Lab 0
Detailed examination of topics in BUS 262A. Development of a project through research, interviews, travel, community or work site investigation, or other development initiative. Participant creates a final product or activity.

BUS 263
Managing External Relations
0.5-3 Credits Class 0.5-3 Lab 0
Organization interface with external groups. Includes marketing and promotion, client/customer service, public relations and image, media relationships, community service and inter-organizational contracts and agreements.

BUS 263A
Managing External Relations: Overview
0.5-1 Credit Class 0.5-1 Lab 0
Organization interface with external groups. Includes marketing and promotion, client/customer service, public relations and image, media relationships, community service and inter-organizational contracts and agreements.

BUS 263B
Managing External Relations: Applications
0.5-1 Credit Class 0.5-1 Lab 0
Application and examples of models for managing organizations, using one or more topics from 263A.

BUS 263C
Managing External Relations: Project
1 Credit Class 1 Lab 0
Examination of topics in BUS 263A. Development of a project through research, interviews, travel, community or work site investigation, or other development initiative. Participant creates a final product or activity.

BUS 264
Evolving Techniques for Organizations
0.5-3 Credits Class 0.5-3 Lab 0
Overview of technologies that affect organizational functions such as communication, information storage and processing, transportation and production.

BUS 264A
Evolving Organization Techniques: Overview
0.5-1 Credit Class 0.5-1 Lab 0
Overview of technologies that affect organizational functions such as communication, information storage and processing, transportation and production including how emerging technologies work, their impact on organizational systems, clients and employees and methods to avoid technological obsolescence.

BUS 264B
Evolving Organization Techniques: Applications
0.5-1 Credit Class 0.5-1 Lab 0
Application and examples of models for managing organizations, using one or more topics from BUS 264A.

BUS 264C
Evolving Organization Techniques: Project
1 Credit Class 1 Lab 0
Detailed examination of topics in 264A. Development of a project through research, interviews, travel, community or work site investigation, or other development initiative. Participant creates a final product or activity.

BUS 265
Problem Solving for Managers
0.5-3 Credits Class 0.5-3 Lab 0
Methods for solving problems in organizations. Includes defining the problem; identifying weaknesses, strengths, and issues; analyzing the economics of the problem; researching and reviewing alternatives; approaches to problem solving; developing goals for change; selecting a solution; and measuring impacts of the solution.

BUS 265A
Problem Solving for Managers: Overview
1 Credit Class 1 Lab 0
Methods for solving problems in organizations. Includes defining the problem; identifying weaknesses, strengths, and issues; analyzing the economics of the problem; researching and reviewing alternatives; approaches to problem solving; selecting a solution; and measuring impacts of the solution.

BUS 265B
Problem Solving for Managers: Applications
0.5-1 Credit Class 0.5-1 Lab 0
Step-by-step techniques for determining, analyzing and solving organizational problems using applications and examples from both for-profit and nonprofit organizations.

BUS 265C
Problem Solving for Managers: Project
1 Credit Class 1 Lab 0
Development of problem-solving techniques relevant to management. Participant creates a final product or activity.

BUS 266
Entrepreneurship
0.5-3 Credits Class 0.5-3 Lab 0
Methods for starting one's own business. Includes a general understanding of products, services and markets; the business plan; capital and other assets; the marketing plan; and legal and financial considerations.

BUS 266A
Entrepreneurship: Overview
1 Credit Class 1 Lab 0
Overview of methods for starting one's own business. Includes a general understanding of products, services and markets; the business plan; capital and other assets; the marketing plan; and legal and financial considerations.

BUS 266B
Entrepreneurship: Applications
0.5-1 Credit Class 0.5-1 Lab 0
Techniques and processes for starting one's own business, including identifying products, services and markets; developing a business plan; securing capital and other assets; developing a marketing plan; addressing legal and financial issues; and getting started.

BUS 266C
Entrepreneurship: Project
1 Credit Class 1 Lab 0
Development of entrepreneurship methods and techniques. Participant creates a final product or activity.

BUS 267
Project Management
0.5-3 Credits Class 0.5-3 Lab 0
Developing and managing projects within organizations. Includes defining the project, goals and objectives, budgeting, scheduling, building the team, activity management, developing milestones, and evaluating outcomes. Examination of use of grants, contracts, computers and other technical assistance as components of a project.

BUS 267A
Project Management: Overview
1 Credit Class 1 Lab 0
Developing and managing projects within organizations. Includes defining the project, goals and objectives, budgeting, scheduling, building the team, activity management, developing milestones, and evaluating outcomes. Examination of use of grants, contracts, computers and other technical assistance as components of a project.

BUS 267B
Project Management: Applications
0.5-1 Credit Class 0.5-1 Lab 0
Step-by-step techniques for project management, using applications and examples of projects in both for-profit and non-profit organizations. Steps and topics listed in BUS 267A will be reviewed.

BUS 267C
Project Management: Project
1 Credit Class 1 Lab 0
Development of a project using project management methods. Under instructor guidance, participants learn project management skills by developing a project or activity.**BUS 268**
Quantitative Concepts for Managers
0.5-3 Credits Class 0.5-3 Lab 0
Quantitative concepts relevant to managing and supervising, including budgeting, scheduling, staff and facility planning, demographic projections and market development. Tools and techniques to build and analyze organizational data, such as computer spreadsheets, data bases and graphs; basic calculations and statistics; external resources for monitoring and evaluating trends in population, economics and legislative changes will be reviewed.

BUS 268A
Quantitative Concepts for Managers: Overview
1 Credit Class 1 Lab 0
Overview of quantitative concepts relevant to managing and supervising, including budgeting, scheduling, staff and facility planning, demographic projections and market development. Reviewed will be tools and techniques to build and analyze organizational data, such as computer spreadsheets, data bases and graphs; basic calculations and statistics; external resources for monitoring and evaluating trends in population, economics and legislative changes.

BUS 268B
Quantitative Concepts for Managers: Applications
0.5-1 Credit Class 0.5-1 Lab 0
Step-by-step techniques for determining and analyzing functional organizational information that requires quantitative methods using applications and examples from both for-profit and non-profit organizations.

BUS 268C
Quantitative Concepts for Managers: Project
1 Credit Class 1 Lab 0
Development of management methods using quantitative concepts. Under the instructor guidance, participants learn quantitative skills relevant to management by developing a project relevant to their own organization.

BUS 270
Purchasing Management
3 Credits Class 2 Lab 3
Procedures and policies relative to contract negotiations. Vendor-buyer relationships, make or buy decisions, inventory control, buyer training, materials handling, records and budgets.

BUS 285
Human Resources Policy
3 Credits Class 3 Lab 1
Case studies and research in modern personnel techniques and higher-level functions such as policy formation, job satisfaction, problems, motivation, performance appraisal and evolving and expanding employee service demands.

BUS 290
Special Topics in Business Management Technology
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

BUS 291
Individual Study in Business Management Technology
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged with instructor permission on an individual basis.

BUS 292
Field Experience in Business Management
1-4 Credits Class 0 Lab 12-48
On-the-job training in a business management facility through special arrangement with an instructor.

BUS 293
Business Management Directed Practice
1-8 Credits Class 0 Lab 5-40
Instruction in the performance of a particular function from an assigned instructor, and then observed and critiqued in a repeat performance of that function by the instructor.

BUS 294
Business Management Cooperative Work Experience
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

BUS 295
Business Practicum Seminar
1-3 Credit Class 1-3 Lab 0
Discussion of job-related concerns and assistance with practicum.

BUS 296
Business Practicum
2-4 Credits Class 1-3 Lab 7
The student is placed in a work environment for a minimum amount of time to gain experience before graduation.

BUS 297
Business Management Observation Hour
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

BUS 298
Business Internship
3-6 Credits Class 0 Lab 20-40
On-the-job training in the workplace of a cooperating agency. Coordinated by an instructor.

BUS 299
Business Internship Seminar
3 Credits Class 3 Lab 0
Discussion of internship experiences, objectives, and evaluation.

Ceramic

CER 101
Ceramic Mineral Systems: Development and Procurement Methods
3 Credits Class 3 Lab 2
Geology and mineralogy terms, structures and classification. Laboratory work and field trips provide firsthand contact.

CER 102
Ceramic Materials and Processes I
4 Credits Class 3 Lab 4
Crystal structure and properties of clays and other ceramic materials, clay-water systems, deflocculation, particle size reduction, screening, weighing, blending, mold making, slip casting, extrusion and dry pressing.

CER 103
Ceramic Materials and Processes II
3 Credits Class 3 Lab 2
Principles and delfocculation of ceramic forming, drying and firing including psychrometer charts and calculations.

CER 104
Combustion I
3 Credits Class 3 Lab 2
Fundamentals of combustion including flame patterns, fuels, combustion analysis and metering. Prerequisites: CHEM 120 and MATH 201.

CER 201
Combustion II
4 Credits Class 3 Lab 3
Examines fuel burning systems, burner equipment controls, piping, combustion analysis, heat transfer and the use of kilns and furnaces to manufacture products. Prerequisites: CER 104 and CHEM 120.

CER 203
Statistical Quality and Process Control
1-4 Credits Class 1-3 Lab 0-3
Theory of quality control in manufacturing processes, profitable systems and customer satisfaction. The organization of quality control departments, the role of the technician in quality control and the implementation of basic quality control methods are discussed.

CER 205
Current Topics and Technology
0.5-3 Credits Class 0.5-3 Lab 0
Introduction to new developments in the field of ceramic materials.

CER 206
Ceramic Industry Practices
3 Credits Class 1 Lab 6
Visits to ceramic plants provide insight into methods, processes and procedures for producing ceramic products.

CER 207
Standard Procedures
3 Credits Class 3 Lab 2
Refractories, whiteware, glass and structural clay products. Includes discussions of manufacturing processes from raw material to finished product. Prerequisites: CER 103 and CHEM 100.

CER 208
Technical Laboratory
3 Credits Class 2 Lab 3
Use of precision equipment used for analysis, investigation and determination of material properties in the ceramic industry. Prerequisite: CER 103.

CER 209
Industrial Projects
2 Credits Class 1 Lab 3
Processing of problems submitted by industrial companies. Problems are defined and solution procedures are determined by students in collaboration with the faculty and industrial technical personnel. Prerequisites: CER 102 and CER 103.

CER 210
Glasses, Glazes and Enamels
4 Credits Class 3 Lab 3
Raw material composition, physical properties and manufacturing processes of glass as well as the use of glassy coating for ceramics and metals. Includes exercises in batch calculating, application, testing and decorating techniques. Prerequisite: CHEM 120.

CER 290
Special Topics in Ceramic Engineering Technology
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

CER 291
Individual Study in Ceramic Engineering Technology
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

CER 292
Field Experience in Ceramics
1-4 Credits Class 1-5 Lab 12-48
On-the-job training in a ceramic facility through special arrangement with an instructor.

CER 293
Ceramics Directed Practice
1-8 Credits Class 0 Lab 5-40
Directed practice instruction in the performance of a particular function from an assigned instructor, and then observed and critiqued in a repeat performance of that function by the instructor.

CER 294
Cooperative Work Experience in Ceramics
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must also be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

CER 295
Ceramic Practicum Seminar
1-3 Credits Class 1-3 Lab 0
Discussion of job-related concerns and assistance with practicum.

CER 296
Ceramic Practicum
1-2 Credits Class 0 Lab 7-14
The student is placed in a work environment for a minimum amount of time to gain experience before graduation.

CER 297
Ceramics Observation Hour
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

CER 298
Ceramic Internship
3-6 Credits Class 0 Lab 20-40
On-the-job training in the workplace of a cooperating agency. Coordinated by an instructor.

CER 299
Ceramic Internship Seminar
3 Credits Class 3 Lab 0
Discussion of internship experiences, objectives, and evaluation.

Chemistry

CHEM 100
Introduction to Chemistry
3 Credits Class 3 Lab 2
Chemical principles as related to fundamental concepts as well as everyday experiences. Basic chemical concepts, structure of matter, nature of elements, bonding and naming of compounds.

CHEM 110
Chemistry for Petroleum Production
3 Credits Class 3 Lab 2
Builds on the introductory engineering chemistry principles and applications to oil and gas drilling and production such as acids, inhibitors, solvents, surfactants and polymers. Prerequisite: CHEM 100.

CHEM 120
Chemistry for Ceramics
3 Credits Class 3 Lab 2
Basic stoichiometry applied to ceramic batch of calculation and fuels, the gas laws as applied to furnace flue gas and combustion air, properties of solutions and electrolytes as applied to slip casting, chemical reactions and chemical equilibrium. Prerequisite: CHEM 100.

CHEM 130
Fundamentals of Chemistry
4 Credits Class 3 Lab 3
Atomic and molecular structure, periodic table and states of matter.

CHEM 140
Chemistry for Materials
3 Credits Class 3 Lab 2
Stoichiometry, gas laws, properties of solutions, basic organic chemistry and the chemistry of representative and transition elements. Prerequisite: CHEM 100.

CHEM 290
Special Topics in Chemistry
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

CHEM 291
Individual Study in Chemistry
1 - 5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

Communications

COMM 050
Fundamentals of Communications
3 Credits Class 3 Lab 1
Development of basic writing skills for the student with demonstrated need. Focus on paragraph writing with emphasis on sentence structure, parts of speech, punctuation, spelling, grammar and proofreading, Does not apply toward graduation requirements.

COMM 051 PACE
Fundamentals of Reading
3 Credits Class 3 Lab 1
Review of the fundamentals of general reading. Class work is individualized. Emphasis on word attack, comprehension and vocabulary skills. Does not apply toward graduation requirements.

COMM 053
Verbal Professionalism
3 Credits Class 3 Lab 0
Presenting a positive professional appearance through use of the language. Focus includes basic rules of grammar, usage and spoken English.

COMM 100
Communications Tutor
3 Credits Class 3 Lab 0
Individualized instruction tailored to student need. Skills covered correspond to those required in Communications I and II including paragraph development, short essay composition, organizational techniques, methods of proofreading, vocabulary development, spelling skills, grammar skills. Writing as a process will be stressed with emphasis on prewriting and revision.

COMM 101
Spelling Skills
1 Credit Class 1 Lab 0
Designed to identify and correct individual spelling weaknesses.

COMM 102
Vocabulary Skills
1 Credit Class 1 Lab 0
Recognition and word usage. Pre- and post-tests are used to show level of achievement.

COMM 104
Job Search Techniques
1 Credit Class 1 Lab 1
Provides information related to the job search. Strategies involved in identifying and defining a suitable position, designing a resume, preparing related correspondence, applying for the position and interviewing in person or by telephone. Prerequisite: COMM 121.

COMM 105
Research Skills
1 Credit Class 1 Lab 0
Identifies types of research needed for both on-the-job and classroom research presentations including primary and secondary research skills and approaching the process through a step-by-step method.

COMM 110 PACE
Reading Communications
3 Credits Class 3 Lab 0
Individualized, self-paced instruction in reading comprehension and vocabulary development. Students weak in reading skills, as determined by tests, is required to enroll in this course prior to enrolling in Communications I and II.

COMM 121 PACE
Communications I
3 Credits Class 3 Lab 1
Paragraph development and short essay composition. Writing as a process stressed with emphasis on prewriting and revision. The student required to take Communications I must successfully complete the course before enrolling in Communications II.

COMM 122 PACE
Communications II
3 Credits Class 3 Lab 0
Development of writing skills through medium-length writing assignments, concentrating on organizing and unifying essay components, studying various methods of development for different communications purposes, supporting and defending ideas in writing and showing evidence of creative and critical thinking in writing. Emphasizes writing as a process, prewriting and revision.

COMM 123 **PACE**
Communications III
3 Credits **Class 3** **Lab 0**
The student may select from several variations of the course, each designed to increase awareness and applications of specific written communications techniques. Each course includes a short research-based project. Communications III/IV course are interchangeable, not sequential. Prerequisite: COMM 122.

COMM 123A **PACE**
Communications III: Job Communications
3 Credits **Class 3** **Lab 0**
Emphasizes skills necessary to write effectively in an office, industry, government or service. Basic principles and formats used in writing letters, memos, and informal reports. Prerequisite: COMM 122.

COMM 123 B **PACE**
Communications III: Contemporary Issues
3 Credits **Class 3** **Lab 0**
Developing critical thinking skills through reading, thinking, analyzing, discussing, and writing about issues that are of current interest on local, state, national and international levels. Prerequisite: COMM 122.

COMM 123 C **PACE**
Communications III: Creative Writing
3 Credits **Class 3** **Lab 0**
Designed to introduce contemporary poetry, fiction, and creative essays through actual writing, reading, and discussion. The emphasis of the course will be writing, pre-writing activities, brainstorming, and evaluation and analysis of others' writings. Prerequisite: COMM 122.

COMM 123D **PACE**
Communications III: Community Service
3 Credits **Class 3** **Lab 0**
Exploration of the need for community volunteers, identification of types of community service, determining personal and professional value of volunteerism and discussing potential pitfalls. Prerequisite: COMM 122.

COMM 123E **PACE**
Communications III: Introduction to Literature
3 Credits **Class 3** **Lab 0**
Short story as a form of written communication, focusing primarily on content, theme, and style. Through reading assignments, a variety of essays and class discussions, students develop critical thinking skills and sharpen awareness of the range and potential of written English. Prerequisite: COMM 122.

COMM 123F **PACE**
Communications III: Sports Readings
3 Credits **Class 3** **Lab 0**
Promote the improvement of composition skills through personal narratives, journals and various analytical modes of expression. Defines sports in broad terms to distinguish between professional, amateur and recreational sports. Prerequisite: COMM 122.

COMM 123G
Communications III: Issues in Media
3 Credits **Class 3** **Lab 0**
Explores critical media issues including effects of the mass media and how to deal with them. Development of critical thinking and writing skills. Prerequisite: COMM 122.

COMM 123H **PACE**
Communications III: Nature Readings
3 Credits **Class 3** **Lab 0**
Investigation of man's relationship with nature in the practical, spiritual, and aesthetic sense. Students are encouraged to explore, identify, and cultivate their own feelings about and perceptions of nature. Prerequisite: COMM 122.

COMM 123J **PACE**
Communications III: The American West
3 Credits **Class 3** **Lab 0**
Designed to acquaint students with the American West. Examines a variety of topics which lead to a fuller understanding of and appreciation for the Western United States. Prerequisite: COMM 122.

COMM 123K **PACE**
Communications III: Portfolio Development
3 Credits **Class 3** **Lab 0**
Documentation of skills and knowledge acquired from experience on the job, in the community, in the military, through travel, or through personal development. In cooperation with the instructor, the student creates a collection of written materials which provide background information related to the objectives of the course(s) being requested. The student may seek credit for a number of courses. Prerequisite: COMM 122.

COMM 123L **PACE**
Communications III: Science Fiction
3 Credits **Class 3** **Lab 0**
Develop writing and thinking skills in science fiction. Focuses on a chronological selection of short stories and science fiction films. Ideas and issues presented, as well as the manner of presentation, will be discussed. Prerequisite: COMM 122.

COMM 123M
Communications III: Children's Literature
3 Credits **Class 3** **Lab 0**
Survey of children's literature, including poetry, fiction and tales. Children's classics and current literature will be included. Prerequisite: Comm 122.

COMM 124 **PACE**
Communications IV
3 Credits **Class 3** **Lab 0**
Several variations of the course, each designed to increase awareness and applications of specific written communications techniques. Each course includes a short research-based project. Communications III and IV courses are interchangeable, not sequential. Prerequisite: COMM 123.

COMM 124A **PACE**
Communications IV: Job Communications
3 Credits **Class 3** **Lab 0**
Writing effectively in an office, industry, government or service. Basic principles and formats used in writing letters, memos, and informal reports will be covered. Prerequisite: COMM 123.

COMM 124B **PACE**
Communications IV: Contemporary Issues
3 Credits **Class 3** **Lab 0**
Developing critical thinking skills through reading, thinking, analyzing, discussing and writing about issues that are of current interest on local, state, national and international levels. Students keep a journal, write essays, and complete a research paper. Prerequisite: COMM 123.

COMM 124C **PACE**
Communications IV: Creative Writing
3 Credits **Class 3** **Lab 0**
Introduction to contemporary poetry, fiction, and creative essays through actual writing, reading, and discussion with an emphasis on writing, pre-writing activities, brainstorming, evaluation and analysis. Prerequisite: COMM 123.

COMM 124D **PACE**
Communications IV: Community Service
3 Credits **Class 3** **Lab 0**
Exploration of the need for community volunteers, identification of types of community service, determining the personal and professional value of volunteerism and potential pitfalls. Prerequisite: COMM 123.

COMM 124 E **PACE**
Communications IV: Introduction to Literature
3 Credits **Class 3** **Lab 0**
Exploration of the short story as a form of written communication, focusing primarily on content, theme, and style. Students develop critical thinking skills and sharpen awareness of the range and potential of written English. Prerequisite: COMM 123.

COMM 124F **PACE**
Communications IV: Sports Reading
3 Credits **Class 3** **Lab 0**
Defines sports in broad terms to distinguish between professional, amateur and recreational sports. Analysis of sports from varying perspectives of active participants, spectators, the media and detractors of athletics. Prerequisite: COMM 123.

COMM 124G **PACE**
Communications IV: Issues in Media
3 Credits **Class 3** **Lab 0**
Exploration of critical media issues including effects of the mass media and how we view and deal with them. Prerequisite: COMM 123.

COMM 124H **PACE**
Communications IV: Nature Readings
3 Credits **Class 3** **Lab 0**
Investigation of man's relationship with nature in the practical, spiritual and aesthetic sense. Students are encouraged to explore, identify, and cultivate their own feelings about and perceptions of nature. Prerequisite: COMM 123.

COMM 124J **PACE**
Communications IV: The American West
3 Credits **Class 3** **Lab 0**
Examines a variety of topics which lead to a fuller understanding of, and appreciation for, the Western United States. Students have the opportunity to explore the West in diverse contexts - cultural, geographic, historic, and aesthetic. Prerequisite: COMM 123.

COMM 124K **PACE**
Communications IV: Portfolio Development
3 Credits **Class 3** **Lab 0**
Documentation of skills and knowledge acquired from experience on the job, in the community, in the military, through travel, or through personal development. In cooperation with the instructor, the student creates a collection of written materials which provide background information related to the objectives of the course(s) being requested. The student may seek credit for a number of courses. Prerequisite: COMM 123.

COMM 124L
Communications IV: Science Fiction
3 Credits **Class 3** **Lab 0**
Develop writing and thinking skills in science fiction. Focuses on a chronological selection of short stories and science fiction films. Ideas and issues presented, as well as the manner of presentation, will be discussed. Prerequisite: COMM 123.

COMM 124M
Communications IV: Children's Literature
3 Credits Class 3 Lab 0
Survey of children's literature, including poetry, fiction and tales. Children's classics and current literature will be included. Prerequisite: Comm 123.

COMM 130
Speech
3 Credits Class 3 Lab 0
Extemporaneous speaking skills through informative, demonstrative and persuasive speeches. The student learns to analyze audiences, choose and narrow topics, develop content through library and other resources, clearly organize speech material and effectively deliver finished speech to class audience. Prerequisite: COMM 121.

COMM 131
Effective Speaking for Effective Leadership
0.5-3 Credits Class 0.5-3 Lab 0
Effective speaking for those in leadership positions. Emphasizes the expression of ideas at meeting, group discussions and informal speaking engagements. Proper support of ideas and observations through research is stressed.

COMM 135
Verbal Career Skills
3 Credits Class 3 Lab 0
Develops the oral communication skills used in business offices through discussion, role-playing and reading about such topics as interviewing, practicing accepted office etiquette and handling various communications situations.

COMM 150
Punctuation and Grammar
2 Credits Class 2 Lab 0
Rules governing English grammar, punctuation and mechanics. Focuses on troublesome areas of grammar: pronoun usage, subject/verb agreement, verb forms and sentence fragments; punctuation: commas, semicolons, apostrophes, quotation marks, hyphens, dashes, brackets and parentheses; and mechanics: capitalization, spelling rules, the use of numerals, abbreviation rules.

COMM 223
Promotional Writing
3 Credits Class 3 Lab 0
Planning and submitting copy for news releases, sales oriented articles and brochures/pamphlets. Familiarization with the thinking processes involved and exploration of writing effective promotional prose. Prerequisite: COMM 122.

COMM 225 **PACE**
Technical Writing
3 Credits Class 3 Lab 0
Organizing and presenting written data with an emphasis on clear, precise, objective thinking and writing as demonstrated through a series of written reports. Prerequisite: COMM 122.

COMM 228
Grant and Proposal Writing
0.5-3 Credits Class 0.5-3 Lab 0
Examination of strategies, resources and techniques for writing grant proposals, including locating funding sources, grant formats, grant writing style and processes to organize grant writing.

COMM 228A
Grants and Proposal Writing: Overview
0.5-1 Credits Class 0.5-1 Lab 0
Examination of strategies, resources and techniques for writing grant proposals, including locating funding sources, grant formats, grant writing style and processes to organize grant writing.

COMM 228B
Grants and Proposal Writing : Applications
0.5-1 Credits Class 0.5-1 Lab 0
Applications and examples for grant proposal writing. Practice and exchange of techniques of grant writing. May include the use of the participant's own organization as a model for proposal writing.

COMM 228C
Grants and Proposal Writing: Project
0.5-1 Credits Class 0.5-1 Lab 0
Development of a grant proposal or a strategic plan for extended grant-seeking activities. Participants develop a project through research, interviews, data collection, community or work site investigation, or other development initiative.

COMM 290
Special Topics in Communications
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

COMM 291
Individual Study in Communications
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individualized basis with instructor permission.

COMM 292
Field Experience in Communications
1-4 Credits Class 0 Lab 12-48
On-the-job training in a facility through special arrangement with an instructor.

COMM 294
Communications Cooperative Work Experience
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

COMM 295
Seminar in Community Service
1-3 Credits Class 1-3 Lab 0
Discussion of job-related concerns and assistance with practicum.

COMM 296
Practicum in Community Service
1 Credit Class 0 Lab 7
The student is placed in a work environment for a minimum amount of time to gain experience before graduation.

COMM 297
Communications Observation Hour
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

Compressor

CAGS 100
Precision Instruments
3 Credits Class 1 Lab 6
In-depth study of precision instruments. Bore calipers, vernier calipers, micrometers and other commonly used devices. Fits and tolerances are discussed as well as the use of factor manuals.

CAGS 101
Introduction to Compressed Air Systems
3 Credits Class 3 Lab 0
Introduction to the compressor technology. Provides an overview of various types of compressors and conditioning equipment utilized by industry. Theory of gas compression, compression ratios and gas laws.

CAGS 102
Compressed Air Applications
3 Credits Class 3 Lab 0
Various applications for compressed air. Includes everything from air tools to air powered drilling equipment. Emphasizes the various requirements placed upon the air supply to meet these applications.

CAGS 110
Reciprocating Compressors I
4 Credits Class 2 Lab 6
Introduction to compressors widely used by industry. Instruction in tear down and reassembly of smaller types of reciprocating compressors typically found in the work place.

CAGS 111
Compressor Lubricants
2 Credits Class 2 Lab 0
Types of lubricating demands required by all types of compressors. Lubrication qualities of various types and grades of oil including studies in viscosity, flash points and synthetic lubricants.

CAGS 112
Air and Gas Condition
3 Credits Class 1 Lab 6
Auxiliary equipment used in a compressed air system to provide the quality of air required for specific process applications. Maintenance and repair of filtering devices, refrigerative dryers, after coolers and other associated equipment.

CAGS 116
Reciprocating Compressors II
4 Credits Class 2 Lab 6
Continuation of CAGS 110. Training on large industrial and multistage compressors.

CAGS 117
Hydraulics and Pneumatics
3 Credits Class 2 Lab 3
Hydraulic and pneumatic controls utilized by compressed air systems. Schematic interpretation, valve and cylinder repair.

CAGS 118
Processor Gas Compressors/Booster
3 Credits Class 2 Lab 3
Requirements placed on compressors when specialized process gases are being utilized. Seal requirements, filtration and an overview of the conditions encountered when compressing with a pressurized inlet.

CAGS 200
Rotary Screw Compressors
4 Credits Class 2 Lab 6
Maintaining and repairing rotary screw compressors. Tear down and reassembly of various types of rotary screw compressors. Includes staging, lubrication, filtration and cooling requirements.

CAGS 201
Compressor Installations
3 Credits Class 2 Lab 3
Requirements for a compressor installation. Foundation and grouting, piping, commissioning and start-up.

CAGS 202
Compressor Controls I
3 Credits Class 2 Lab 3
Electrical controls utilized by compressed air systems. Functional control panels and interpretation of electrical ladder diagrams. Volt-ohm meters, amp meters and other associated electrical test equipment.

CAGS 203
Rotary Lube Compressors
4 Credits Class 2 Lab 6
Knowledge and skills required to maintain and repair rotary lube compressors. Hands-on instruction in tear down and reassembly.

CAGS 204
Compressed Air System Troubleshooting
3 Credits Class 2 Lab 3
Logic and skills required for effective troubleshooting. Hands-on training on a totally functional air system allows students to sharpen skills learned in preceding courses and to apply these skills in a logical progression to resolve a fault in the system.

CAGS 205
Compressor Controls II
3 Credits Class 2 Lab 3
Continuation of CAGS 204. Proficiency in electrical troubleshooting. Maintenance and repair of large three-phase electrical motors. Reinforcement of associated compressed air control circuits.

CAGS 206
Centrifugal Compressors
4 Credits Class 2 Lab 6
Knowledge and skills required to maintain and repair centrifugal compressors. Competency-based, hands-on instruction in tear down and reassembly.

CAGS 207
Air System Design
3 Credits Class 2 Lab 3
Practical application of all knowledge obtained in the compressor technology. The student designs an air system to meet a particular application. Includes sizing, installation, controls, safeties, auxiliary conditioning equipment and all other variables required for a trouble-free system.

CAGS 208
Basic Refrigeration
4 Credits Class 3 Lab 3
Introduction to types of systems available in the industry. Covers topics of heat: quantity, type, intensity; gas laws and properties; system component analysis and selection; piping layout and system capacity control.

CAGS 209
NGV Fill Station Repair and Maintenance
2 Credits Class 2 Lab 0
Proper maintenance and troubleshooting procedures needed to operate an NGV refueling station. Special emphasis is given to the topics of safety, preventive maintenance, and electrical-mechanical diagnostic procedures.

CAGS 280
Refrigerant Technician Certification Seminar
1 Credit Class 1 Lab 0
Completion of this course provides certification, as required by The Clean Air Act Amendment of 1990, for technicians who service, install, and maintain air conditioning and refrigeration equipment.

CAGS 290
Special Topics in Compressor Technology
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

CAGS 291
Individual Study in Compressor Technology
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

CAGS 292
Field Experience in Compressor Technology
1-4 Credits Class 0 Lab 12-48
On-the-job training in a compressor facility through special arrangements with an instructor.

CAGS 293
Compressor Directed Practice
1-8 Credits Class 0 Lab 5-40
Directed practice instruction in the performance of a particular function from an assigned instructor, and then observed and critiqued by the instructor in a repeat performance of that function.

CAGS 294
Cooperative Work Experience in Compressor Technology
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

CAGS 295
Compressor Practicum Seminar
1-3 Credits Class 1-3 Lab 0
Discussion of job-related concerns and assistance with practicum.

CAGS 296
Compressor Practicum
1-6 Credits Class 0 Lab 7-42
The student is placed in a work environment for a minimum amount of time to gain experience before graduation.

CAGS 297
Compressor Observation Hour
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

CAGS 298
Compressor Internship
3-6 Credits Class 0 Lab 20-40
On the job training in the workplace of a cooperating agency. Coordinated by an instructor.

CAGS 299
Compressor Internship Seminar
3 Credits Class 3 Lab 0
Discussion of internship experiences, objectives, and evaluation.

Ceramic

CER 101
Ceramic Mineral Systems: Development and Procurement Methods
3 Credits Class 3 Lab 2
Geology and mineralogy terms, structures and classification. Laboratory work and field trips provide firsthand contact.

CER 102
Ceramic Materials and Processes I
4 Credits Class 3 Lab 4
Crystal structure and properties of clays and other ceramic materials, clay-water systems, deflocculation, particle size reduction, screening, weighing, blending, mold making, slip casting, extrusion and dry pressing.

CER 103
Ceramic Materials and Processes II
3 Credits Class 3 Lab 2
Principles and delfocculation of ceramic forming, drying and firing including psychrometer charts and calculation.

CER 104
Combustion I
3 Credits Class 3 Lab 2
Fundamentals of combustion including flame patterns, fuels, combustion analysis and metering. Prerequisites: CHEM 120 and MATH 201.

CER 201
Combustion II
4 Credits Class 3 Lab 3
Examines fuel burning systems, burner equipment controls, piping, combustion analysis, heat transfer and the use of kilns and furnaces to manufacture products. Prerequisites: CER 104 and CHEM 120.

CER 203
Statistical Quality and Process Control
1-4 Credits Class 1-3 Lab 0-3
Theory of quality control in manufacturing processes, profitable systems and customer satisfaction. The organization of quality control departments, the role of the technician in quality control and the implementation of basic quality control methods are discussed.

CER 205
Current Topics and Technology
0.5-3 Credits Class 0.5-3 Lab 0
Introduction to new developments in the field of ceramic materials.

CER 206
Ceramic Industry Practices
3 Credits Class 1 Lab 6
Visits to ceramic plants provide insight into methods, processes and procedures for producing ceramic products.

CER 207
Standard Procedures
3 Credits Class 3 Lab 2
Refractories, whiteware, glass and structural clay products. Includes discussions of manufacturing processes from raw material to finished product. Prerequisites: CER 103 and CHEM 100.

CER 208
Technical Laboratory
3 Credits Class 2 Lab 3
Use of precision equipment used for analysis, investigation and determination of material properties in the ceramic industry. Prerequisite: CER 103.

CER 209
Industrial Projects
2 Credits Class 1 Lab 3
Processing of problems submitted by industrial companies. Problems are defined and solution procedures are determined by students in collaboration with the faculty and industrial technical personnel. Prerequisites: CER 102 and CER 103.

CER 210
Glasses, Glazes and Enamels
4 Credits Class 3 Lab 3
Raw material composition, physical properties and manufacturing processes of glass as well as the use of glassy coating for ceramics and metals. Includes exercises in batch calculating, application, testing and decorating techniques. Prerequisite: CHEM 120.

CER 290
Special Topics in Ceramic Engineering Technology
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

CER 291
Individual Study in Ceramic Engineering Technology
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

CER 292
Field Experience in Ceramics
1-4 Credits Class 1-5 Lab 12-48
On-the-job training in a ceramic facility through special arrangement with an instructor.

CER 293
Ceramics Directed Practice
1-8 Credits Class 0 Lab 5-40
Directed practice instruction in the performance of a particular function from an assigned instructor, and then observed and critiqued in a repeat performance of that function by the instructor.

CER 294
Cooperative Work Experience in Ceramics
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must also be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

CER 295
Ceramic Practicum Seminar
1-3 Credits Class 1-3 Lab 0
Discussion of job-related concerns and assistance with practicum.

CER 296
Ceramic Practicum
1-2 Credits Class 0 Lab 7-14
The student is placed in a work environment for a minimum amount of time to gain experience before graduation.

CER 297
Ceramics Observation Hour
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

CER 298
Ceramic Internship
3-6 Credits Class 0 Lab 20-40
On-the-job training in the workplace of a cooperating agency. Coordinated by an instructor.

CER 299
Ceramic Internship Seminar
3 Credits Class 3 Lab 0
Discussion of internship experiences, objectives, and evaluation.

Chemistry

CHEM 100
Introduction to Chemistry
3 Credits Class 3 Lab 2
Chemical principles as related to fundamental concepts as well as everyday experiences. Basic chemical concepts, structure of matter, nature of elements, bonding and naming of compounds.

CHEM 110
Chemistry for Petroleum Production
3 Credits Class 3 Lab 2
Builds on the introductory engineering chemistry principles and applications to oil and gas drilling and production such as acids, inhibitors, solvents, surfactants and polymers. Prerequisite: CHEM 100.

CHEM 120
Chemistry for Ceramics
3 Credits Class 3 Lab 2
Basic stoichiometry applied to ceramic batch of calculation and fuels, the gas laws as applied to furnace flue gas and combustion air, properties of solutions and electrolytes as applied to slip casting, chemical reactions and chemical equilibrium. Prerequisite: CHEM 100.

CHEM 130
Fundamentals of Chemistry
4 Credits Class 3 Lab 3
Atomic and molecular structure, periodic table and states of matter.

CHEM 140
Chemistry for Materials
3 Credits Class 3 Lab 2
Stoichiometry, gas laws, properties of solutions, basic organic chemistry and the chemistry of representative and transition elements. Prerequisite: CHEM 100.

CHEM 290
Special Topics in Chemistry
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

CHEM 291
Individual Study in Chemistry
1 - 5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

Communications

COMM 050
Fundamentals of Communications
3 Credits Class 3 Lab 1
Development of basic writing skills for the student with demonstrated need. Focus on paragraph writing with emphasis on sentence structure, parts of speech, punctuation, spelling, grammar and proofreading, Does not apply toward graduation requirements.

COMM 051 PACE
Fundamentals of Reading
3 Credits Class 3 Lab 1
Review of the fundamentals of general reading. Class work is individualized. Emphasis on word attack, comprehension and vocabulary skills. Does not apply toward graduation requirements.

COMM 053
Verbal Professionalism
3 Credits Class 3 Lab 0
Presenting a positive professional appearance through use of the language. Focus includes basic rules of grammar, usage and spoken English.

COMM 100
Communications Tutor
3 Credits Class 3 Lab 0
Individualized instruction tailored to student need. Skills covered correspond to those required in Communications I and II including paragraph development, short essay composition, organizational techniques, methods of proofreading, vocabulary development, spelling skills, grammar skills. Writing as a process will be stressed with emphasis on prewriting and revision.

COMM 101
Spelling Skills
1 Credit Class 1 Lab 0
Designed to identify and correct individual spelling weaknesses.

COMM 102
Vocabulary Skills
1 Credit Class 1 Lab 0
Recognition and word usage. Pre- and post-tests are used to show level of achievement.

COMM 104
Job Search Techniques
1 Credit Class 1 Lab 1
Provides information related to the job search. Strategies involved in identifying and defining a suitable position, designing a resume, preparing related correspondence, applying for the position and interviewing in person or by telephone. Prerequisite: COMM 121.

COMM 105
Research Skills
1 Credit Class 1 Lab 0
Identifies types of research needed for both on-the-job and classroom research presentations including primary and secondary research skills and approaching the process through a step-by-step method.

COMM 110 PACE
Reading Communications
3 Credits Class 3 Lab 0
Individualized, self-paced instruction in reading comprehension and vocabulary development. Students weak in reading skills, as determined by tests, is required to enroll in this course prior to enrolling in Communications I and II.

COMM 121 PACE
Communications I
3 Credits Class 3 Lab 1
Paragraph development and short essay composition. Writing as a process stressed with emphasis on prewriting and revision. The student required to take Communications I must successfully complete the course before enrolling in Communications II.

COMM 122 PACE
Communications II
3 Credits Class 3 Lab 0
Development of writing skills through medium-length writing assignments, concentrating on organizing and unifying essay components, studying various methods of development for different communications purposes, supporting and defending ideas in writing and showing evidence of creative and critical thinking in writing. Emphasizes writing as a process, prewriting and revision.

COMM 123 PACE
Communications III
3 Credits Class 3 Lab 0
The student may select from several variations of the course, each designed to increase awareness and applications of specific written communications techniques. Each course includes a short research-based project. Communications III/IV course are interchangeable, not sequential.
Prerequisite: COMM 122.

COMM 123A PACE
Communications III: Job Communications
3 Credits Class 3 Lab 0
Emphasizes skills necessary to write effectively in an office, industry, government or service. Basic principles and formats used in writing letters, memos, and informal reports. Prerequisite: COMM 122.

COMM 123 B PACE
Communications III: Contemporary Issues
3 Credits Class 3 Lab 0
Developing critical thinking skills through reading, thinking, analyzing, discussing, and writing about issues that are of current interest on local, state, national and international levels. Prerequisite: COMM 122.

COMM 123 C PACE
Communications III: Creative Writing
3 Credits Class 3 Lab 0
Designed to introduce contemporary poetry, fiction, and creative essays through actual writing, reading, and discussion. The emphasis of the course will be writing, pre-writing activities, brainstorming, and evaluation and analysis of others' writings.
Prerequisite: COMM 122.

COMM 123D PACE
Communications III: Community Service
3 Credits Class 3 Lab 0
Exploration of the need for community volunteers, identification of types of community service, determining personal and professional value of volunteerism and discussing potential pitfalls. Prerequisite: COMM 122

COMM 123E PACE
Communications III: Introduction to Literature
3 Credits Class 3 Lab 0
Short story as a form of written communication, focusing primarily on content, theme, and style. Through reading assignments, a variety of essays and class discussions, students develop critical thinking skills and sharpen awareness of the range and potential of written English. Prerequisite: COMM 122.

COMM 123F PACE
Communications III: Sports Readings
3 Credits Class 3 Lab 0
Promote the improvement of composition skills through personal narratives, journals and various analytical modes of expression. Defines sports in broad terms to distinguish between professional, amateur and recreational sports. Prerequisite: COMM 122.

COMM 123G
Communications III: Issues in Media
3 Credits Class 3 Lab 0
Explores critical media issues including effects of the mass media and how to deal with them. Development of critical thinking and writing skills. Prerequisite: COMM 122.

COMM 123H PACE
Communications III: Nature Readings
3 Credits Class 3 Lab 0
Investigation of man's relationship with nature in the practical, spiritual, and aesthetic sense. Students are encouraged to explore, identify, and cultivate their own feelings about and perceptions of nature. Prerequisite: COMM 122.

COMM 123J PACE
Communications III: The American West
3 Credits Class 3 Lab 0
Designed to acquaint students with the American West. Examines a variety of topics which lead to a fuller understanding of and appreciation for the Western United States. Prerequisite: COMM 122.

COMM 123K PACE
Communications III: Portfolio Development
3 Credits Class 3 Lab 0
Documentation of skills and knowledge acquired from experience on the job, in the community, in the military, through travel, or through personal development. In cooperation with the instructor, the student creates a collection of written materials which provide background information related to the objectives of the course(s) being requested. The student may seek credit for a number of courses. Prerequisite: COMM 122.

COMM 123L PACE
Communications III: Science Fiction
3 Credits Class 3 Lab 0
Develop writing and thinking skills in science fiction. Focuses on a chronological selection of short stories and science fiction films. Ideas and issues presented, as well as the manner of presentation, will be discussed. Prerequisite: COMM 122.

COMM 123M
Communications III: Children's Literature
3 Credits Class 3 Lab 0
Survey of children's literature, including poetry, fiction and tales. Children's classics and current literature will be included. Prerequisite: Comm 122.

COMM 124 PACE
Communications IV
3 Credits Class 3 Lab 0
Several variations of the course, each designed to increase awareness and applications of specific written communications techniques. Each course includes a short research-based project. Communications III and IV courses are interchangeable, not sequential. Prerequisite: COMM 123.

COMM 124A PACE
Communications IV: Job Communications
3 Credits Class 3 Lab 0
Writing effectively in an office, industry, government or service. Basic principles and formats used in writing letters, memos, and informal reports will be covered. Prerequisite: COMM 123.

COMM 124B PACE
Communications IV: Contemporary Issues
3 Credits Class 3 Lab 0
Developing critical thinking skills through reading, thinking, analyzing, discussing and writing about issues that are of current interest on local, state, national and international levels. Students keep a journal, write essays, and complete a research paper. Prerequisite: COMM 123.

COMM 124C PACE
Communications IV: Creative Writing
3 Credits Class 3 Lab 0
Introduction to contemporary poetry, fiction, and creative essays through actual writing, reading, and discussion with an emphasis on writing, pre-writing activities, brainstorming, evaluation and analysis. Prerequisite: COMM 123.

COMM 124D PACE
Communications IV: Community Service
3 Credits Class 3 Lab 0
Exploration of the need for community volunteers, identification of types of community service, determining the personal and professional value of volunteerism and potential pitfalls. Prerequisite: COMM 123.

COMM 124 E PACE
Communications IV: Introduction to Literature
3 Credits Class 3 Lab 0
Exploration of the short story as a form of written communication, focusing primarily on content, theme, and style. Students develop critical thinking skills and sharpen awareness of the range and potential of written English. Prerequisite: COMM 123.

COMM 124F PACE
Communications IV: Sports Reading
3 Credits Class 3 Lab 0
Defines sports in broad terms to distinguish between professional, amateur and recreational sports. Analysis of sports from varying perspectives of active participants, spectators, the media and detractors of athletics. Prerequisite: COMM 123.

COMM 124G PACE
Communications IV: Issues in Media
3 Credits Class 3 Lab 0
Exploration of critical media issues including effects of the mass media and how we view and deal with them. Prerequisite: COMM 123.

COMM 124H PACE
Communications IV: Nature Readings
3 Credits Class 3 Lab 0
Investigatation of man's relationship with nature in the practical, spiritual and aesthetic sense. Students are encouraged to explore, identify, and cultivate their own feelings about and perceptions of nature. Prerequisite: COMM 123.

COMM 124J PACE
Communications IV: The American West
3 Credits Class 3 Lab 0
Examines a variety of topics which lead to a fuller understanding of, and appreciation for, the Western United States. Students have the opportunity to explore the West in diverse contexts - cultural, geographic, historic, and aesthetic. Prerequisite: COMM 123.

COMM 124K PACE
Communications IV: Portfolio Development
3 Credits Class 3 Lab 0
Documentation of skills and knowledge acquired from experience on the job, in the community, in the military, through travel, or through personal development. In cooperation with the instructor, the student creates a collection of written materials which provide background information related to the objectives of the course(s) being requested. The student may seek credit for a number of courses. Prerequisite: COMM 123.

COMM 124L
Communications IV: Science Fiction
3 Credits Class 3 Lab 0
Develop writing and thinking skills in science fiction. Focuses on a chronological selection of short stories and science fiction films. Ideas and issues presented, as well as the manner of presentation, will be discussed. Prerequisite: COMM 123.

COMM 124M
Communications IV: Children's Literature
3 Credits Class 3 Lab 0
Survey of children's literature, including poetry, fiction and tales. Children's classics and current literature will be included. Prerequisite: Comm 123.

COMM 130
Speech
3 Credits Class 3 Lab 0
Extemporaneous speaking skills through informative, demonstrative and persuasive speeches. The student learns to analyze audiences, choose and narrow topics, develop content through library and other resources, clearly organize speech material and effectively deliver finished speech to class audience. Prerequisite: COMM 121.

COMM 131
Effective Speaking for Effective Leadership
0.5-3 Credits Class 0.5-3 Lab 0
Effective speaking for those in leadership positions. Emphasizes the expression of ideas at meeting, group discussions and informal speaking engagements. Proper support of ideas and observations through research is stressed.

COMM 135
Verbal Career Skills
3 Credits Class 3 Lab 0
Develops the oral communication skills used in business offices through discussion, role-playing and reading about such topics as interviewing, practicing accepted office etiquette and handling various communications situations.

COMM 150
Punctuation and Grammar
2 Credits Class 2 Lab 0
Rules governing English grammar, punctuation and mechanics. Focuses on troublesome areas of grammar: pronoun usage, subject/verb agreement, verb forms and sentence fragments; punctuation: commas, semicolons, apostrophes, quotation marks, hyphens, dashes, brackets and parentheses; and mechanics: capitalization, spelling rules, the use of numerals, abbreviation rules.

COMM 228B
Grants and Proposal Writing : Applications
0.5-1 Credits Class 0.5-1 Lab 0
Applications and examples for grant proposal writing. Practice and exchange of techniques of grant writing. May include the use of the participant's own organization as a model for proposal writing.

COMM 228C
Grants and Proposal Writing: Project
0.5-1 Credits Class 0.5-1 Lab 0
Development of a grant proposal or a strategic plan for extended grant-seeking activities. Participants develop a project through research, interviews, data collection, community or work site investigation, or other development initiative.

COMM 290
Special Topics in Communications
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

COMM 291
Individual Study in Communications
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individualized basis with instructor permission.

COMM 292
Field Experience in Communications
1-4 Credits Class 0 Lab 12-48
On-the-job training in a facility through special arrangement with an instructor.

COMM 294
Communications Cooperative Work Experience
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

COMM 295
Seminar in Community Service
1-3 Credits Class 1-3 Lab 0
Discussion of job-related concerns and assistance with practicum.

COMM 296
Practicum in Community Service
1 Credit Class 0 Lab 7
The student is placed in a work environment for a minimum amount of time to gain experience before graduation.

COMM 297
Communications Observation Hour
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

Compressor

CAGS 100
Precision Instruments
3 Credits Class 1 Lab 6
In-depth study of precision instruments. Bore calipers, vernier calipers, micrometers and other commonly used devices. Fits and tolerances are discussed as well as the use of factor manuals.

CAGS 101
Introduction to Compressed Air Systems
3 Credits Class 3 Lab 0
Introduction to the compressor technology. Provides an overview of various types of compressors and conditioning equipment utilized by industry. Theory of gas compression, compression ratios and gas laws.

CAGS 102
Compressed Air Applications
3 Credits Class 3 Lab 0
Various applications for compressed air. Includes everything from air tools to air powered drilling equipment. Emphasizes the various requirements placed upon the air supply to meet these applications.

CAGS 110
Reciprocating Compressors I
4 Credits Class 2 Lab 6
Introduction to compressors widely used by industry. Instruction in tear down and reassembly of smaller types of reciprocating compressors typically found in the work place.

CAGS 111
Compressor Lubricants
2 Credits Class 2 Lab 0
Types of lubricating demands required by all types of compressors. Lubrication qualities of various types and grades of oil including studies in viscosity, flash points and synthetic lubricants.

CAGS 112
Air and Gas Condition
3 Credits Class 1 Lab 6
Auxiliary equipment used in a compressed air system to provide the quality of air required for specific process applications. Maintenance and repair of filtering devices, refrigerative dryers, after coolers and other associated equipment.

CAGS 116
Reciprocating Compressors II
4 Credits Class 2 Lab 6
Continuation of CAGS 110. Training on large industrial and multi-stage compressors.

CAGS 117
Hydraulics and Pneumatics
3 Credits Class 2 Lab 3
Hydraulic and pneumatic controls utilized by compressed air systems. Schematic interpretation, valve and cylinder repair.

CAGS 118
Processor Gas Compressors/Booster
3 Credits Class 2 Lab 3
Requirements placed on compressors when specialized process gases are being utilized. Seal requirements, filtration and an overview of the conditions encountered when compressing with a pressurized inlet.

CAGS 200
Rotary Screw Compressors
4 Credits Class 2 Lab 6
Maintaining and repairing rotary screw compressors. Tear down and reassembly of various types of rotary screw compressors. Includes staging, lubrication, filtration and cooling requirements.

CAGS 201
Compressor Installations
3 Credits Class 2 Lab 3
Requirements for a compressor installation. Foundation and grouting, piping, commissioning and start-up.

CAGS 202
Compressor Controls I
3 Credits Class 2 Lab 3
Electrical controls utilized by compressed air systems. Functional control panels and interpretation of electrical ladder diagrams. Volt-ohm meters, amp meters and other associated electrical test equipment.

CAGS 203
Rotary Lube Compressors
4 Credits Class 2 Lab 6
Knowledge and skills required to maintain and repair rotary lube compressors. Hands-on instruction in tear down and reassembly.

CAGS 204
Compressed Air System Troubleshooting
3 Credits Class 2 Lab 3
Logic and skills required for effective troubleshooting. Hands-on training on a totally functional air system allows students to sharpen skills learned in preceding courses and to apply these skills in a logical progression to resolve a fault in the system.

CAGS 205
Compressor Controls II
3 Credits Class 2 Lab 3
Continuation of CAGS 204. Proficiency in electrical troubleshooting. Maintenance and repair of large three-phase electrical motors. Reinforcement of associated compressed air control circuits.

CAGS 206
Centrifugal Compressors
4 Credits Class 2 Lab 6
Knowledge and skills required to maintain and repair centrifugal compressors. Competency-based, hands-on instruction in tear down and reassembly.

CAGS 207
Air System Design
3 Credits Class 2 Lab 3
Practical application of all knowledge obtained in the compressor technology. The student designs an air system to meet a particular application. Includes sizing, installation, controls, safeties, auxiliary conditioning equipment and all other variables required for a trouble-free system.

CAGS 208
Basic Refrigeration
4 Credits Class 3 Lab 3
Introduction to types of systems available in the industry. Covers topics of heat: quantity, type, intensity; gas laws and properties; system component analysis and selection; piping layout and system capacity control.

CAGS 209
NGV Fill Station Repair and Maintenance
2 Credits Class 2 Lab 0
Proper maintenance and troubleshooting procedures needed to operate an NGV refueling station. Special emphasis is given to the topics of safety, preventive maintenance, and electrical-mechanical diagnostic procedures.

CAGS 280
Refrigerant Technician Certification Seminar
1 Credit Class 1 Lab 0
Completion of this course provides certification, as required by The Clean Air Act Amendment of 1990, for technicians who service, install, and maintain air conditioning and refrigeration equipment.

CAGS 290
Special Topics in Compressor Technology
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

CAGS 291
Individual Study in Compressor Technology
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

CAGS 292
Field Experience in Compressor Technology
1-4 Credits Class 0 Lab 12-48
On-the-job training in a compressor facility through special arrangements with an instructor.

CAGS 293
Compressor Directed Practice
1-8 Credits Class 0 Lab 5-40
Directed practice instruction in the performance of a particular function from an assigned instructor, and then observed and critiqued by the instructor in a repeat performance of that function.

CAGS 294
Cooperative Work Experience in Compressor Technology
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

CAGS 295
Compressor Practicum Seminar
1-3 Credits Class 1-3 Lab 0
Discussion of job-related concerns and assistance with practicum.

CAGS 296
Compressor Practicum
1-6 Credits Class 0 Lab 7-42
The student is placed in a work environment for a minimum amount of time to gain experience before graduation.

CAGS 297
Compressor Observation Hour
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

CAGS 298
Compressor Internship
3-6 Credits Class 0 Lab 20-40
On the job training in the workplace of a cooperating agency. Coordinated by an instructor.

CAGS 299
Compressor Internship Seminar
3 Credits Class 3 Lab 0
Discussion of internship experiences, objectives, and evaluation.

Computer Science

CS 100
Program Analysis I
3 Credits Class 3 Lab 2
Program logic using the flowchart as a tool to diagram the solution to a written problem. Includes programming terminology, hierarchy of evaluation for arithmetic assignment statements, decision making, counter and accumulator concepts, flowcharting given problems and evaluation of flowcharts.

CS 101
Program Analysis II
3 Credits Class 3 Lab 2
Sequel to CS 100 with emphasis on program efficiency and economy. The flowchart is used as the primary tool to diagram problem solutions. Emphasizes structured design in flowcharting the solution to problems containing counters, accumulators, control breaks and arrays. Prerequisite: CS 100.

CS 110
Introduction to COBOL
5 Credits Class 4 Lab 5
COBOL language (American National Standard, 1985) and its implementation in the business environment. Topics include the basic structure of a COBOL program, finding and correcting syntax errors, imperative, arithmetic and conditional statements, editing and truncation rules, performs, redefines, and techniques for management of single dimension arrays. Prerequisite: CS 100.

CS 111
Advanced COBOL
5 Credits Class 4 Lab 5
Advanced programming techniques. Includes two and three dimensional arrays; sequential indexed, and relative file processing; sorting techniques; subprograms; and modular design. Prerequisites: CS 101 and CS 110.

CS 120
Introduction to Data Processing
3 Credits Class 3 Lab 2
Introduction to the college's computer system. Lecture and hands-on laboratory experience covers the main operating system commands, the on-line text editor and the file copier utility.**CS 125**
Computer Numbering System
1 Credit Class 1 Lab 0
Introduction to the principles of numbering systems. Includes binary, octal and hexadecimal conversions and arithmetic operations, byte organization, and ASCII and EBCDIC coding schemes.

CS 135
Computer Center Operations
1 Credit Class 1 Lab 3
Provides experience in a computer center. Students will be responsible for hardware monitoring, distribution of output, daily account backups, user assistance and other day to day operations.

CS 140
Job Control and Utilities
3 Credits Class 3 Lab 2
Current computer operating system including accounting structure, the syntax and operation of system and console operator commands and available system utility programs. Prerequisite: CS 120.

CS 155
Applied Statistical Packages
3 Credits Class 3 Lab 2
Computer statistical packages used to analyze classical decision theory (hypothesis testing) problems. Analysis of marketing information and questionnaire data are emphasized.

CS 200
Introduction to Networking
4 Credits Class 3 Lab 3
Concepts and components involved in networking computers for hardware and software resource sharing. Prerequisite: MICS 110.
CS 210
Programming in C
4 Credits Class 4 Lab 2
Assembly language C including basic elements of the C programming language which include program elements, program structure, functions and function structure, input and output operations, control statements, data types and declarations, and arithmetic operators and expressions. Prerequisites: CS 101 and MICS 110.

CS 213
Applications in Structured COBOL
4 Credits Class 4 Lab 2
Advanced business applications using structured programming, documentation techniques and forms management software. Prerequisites: CS 111, CS 240 and CS 271.

CS 220
Programming in RPG
5 Credits Class 4 Lab 3
Principles, logic and coding formats of the RPG II (Report Program Generator II) computer programming language. Writing RPG II programs using sequential and indexed sequential files, tables and arrays. Includes using the external sort utility, XSORT, to perform file maintenance and to produce a variety of reports. Prerequisites: CS 100 and CS 120.

CS 240
Database Management
3 Credits Class 3 Lab 2
Structure, function and use of database processing and management. Students create and access a typical business database using the current database management software, Turbo Image and application programming COBOL. Prerequisite: CS 111.

CS 250
Basic Assembler Language
3 Credits Class 3 Lab 2
Principles of programming in 360/370 ASSEMBLER language. Topics covered include machine code, instruction execution, addressing techniques and various formats of data representation. Computer programming projects are assigned to illustrate programming techniques of the machine language using an IBM 370. Prerequisite: CS 125.

CS 270
Technical Manuals Usage
2 Credits Class 2 Lab 1
Experience in reading and interpreting technical manuals. Prerequisite: CS 111.

CS 271
Forms Management Systems
2 Credits Class 2 Lab 2
Design, implementation and control of electronic forms for data entry and retrieval through a stand-alone data entry program and programmatically through applications programs written in COBOL. Instruction also in VPLUS, a comprehensive software system for HP computer systems. Prerequisite: CS 111.

CS 275
Fourth Generation Language and Prototyping
4 Credits Class 4 Lab 2
Structure and use of a fourth generation computer language to design and implement information systems through prototyping. The student creates, maintains and designs data dictionaries, data entry and retrieval screens, report generators and transaction processing techniques. The software system used is Powerhouse. Prerequisites: CS 111 and CS 240.**CS 290**
Special Topics in Computer Science Technology
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

CS 291
Individual Study in Computer Science Technology
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

CS 292
Field Experience in Computer Science
1-4 Credits Class 0 Lab 12-48
On-the-job training in a computer science facility through special arrangement with an instructor.

CS 294
Cooperative Work Experience in Computer Science
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must also be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

CS 295
Computer Science Practicum Seminar
1-3 Credits Class 1-3 Lab 0
Discussion of job-related concerns and assistance with practicum.

CS 296
Computer Science Practicum
1-2 Credits Class 0 Lab 7-14
The student is placed in a work environment for a minimum amount of time to gain experience before graduation.

CS 297
Observation Hour in Computer Science
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

CS 298
Computer Science Internship
3-6 Credits Class 0 Lab 20-40
On-the-job training in the workplace of a cooperating agency. Coordinated by an instructor.

CS 299
Computer Science Internship Seminar
3 Credits Class 3 Lab 0
Discussion of internship experiences, objectives, and evaluation.

Corrections

CORR 100
Orientation to Corrections
2 Credits Class 2 Lab 2
Introduction to the field of corrections including an overview and history of both private and public, adult and juvenile corrections, community-based correctional programs, probation, institutions and parole.

CORR 105
Adult Residential Services
4 Credits Class 3 Lab 4
Correctional institutions, their history, functions, sociology, programs and effectiveness. Emphasizes direct, practical observation and learning experiences through visitations, instructional materials and guest lectures.

CORR 106
Probation and Parole
3 Credits Class 3 Lab 2
Probation, parole and community-based correction programs. Legal considerations, detention processes, community treatment programs, social investigations, the use of community resources, the role of the probation and parole officer in community service and the supervision of offenders.

CORR 122
Correctional Law
3 Credits Class 2 Lab 3
Cases, statutory and constitutional law specifically applied to the field of corrections. Overview of the development of correctional law with an emphasis on general principles applied to cases in corrections. Includes study of landmark cases and their influence on correctional personnel, agencies and clientele. Prerequisite: CJ 100.

CORR 151
Unarmed Self-Defense
2 Credits Class 1 Lab 4
Unarmed self-defense tactics are studied and practiced to prepare the student for defensive maneuvers required in correctional work. The student receives the same training as provided by the Department of Rehabilitation and Correction in-service.

CORR 160
Group Work Techniques
3 Credits Class 2 Lab 3
Use of short and long-term group counseling in human services programs. Introduction to team building and problem-solving as they apply to correctional unit management as well as group counseling theories and practices.

CORR 161
Reality Therapy
3 Credits Class 3 Lab 2
In-depth study of reality therapy, the most commonly used treatment modality in corrections. Through learning how the brain works to achieve control and desired results, the student comes to understand how to live a more effective life and how to help others to do the same.

CORR 216
Correctional Firearms
3 Credits Class 2 Lab 4
Introduction to modern correctional firearms. Topics include nomenclature; weapons care, proper use; restrictions and liability; transporting arms; and home/office safety procedures. Range practice of both the pistol and shotgun are included. Prerequisite: Instructor permission.

CORR 235
Correctional Report Writing
3 Credits Class 2 Lab 3
Practical experience in preparing the diverse forms, reports and logs that accompany correctional work. Emphasis on intake, home studies, presentence and investigative report writing and case recording. Routine shift logs, incident reports, and risk assessment forms are also covered. Prerequisite: COMM 122.

CORR 250
Correctional Officer Training
12 Credits Class 10 Lab 6
Laws, policies, procedures and self-defense techniques used in a jail facility. Students will be certified upon completion of this program through the Ohio Peace Officer Training Council to work in jail facilities.

CORR 260
Interviewing Techniques
4 Credits Class 3 Lab 3
Theory and practice of interviewing. Emphasis on the development of good attending skills, responding to specific feelings and thoughts and the importance of self-awareness. Introduces the use of audio and video tapes as learning tools.

CORR 261
Approaches to Counseling
4 Credits Class 3 Lab 3
A comparative study of counseling theories. Development of an eclectic personal style of counseling through studying the philosophy, key concepts, goals, techniques and procedures of each approach.

CORR 262
Counseling Techniques
3 Credits Class 2 Lab 4
Development of an individualized approach to counseling. Fundamental counseling techniques and procedures are practiced within the framework of their approach in a variety of video lab simulations. Prerequisite: CORR 261.

CORR 265
Case Analysis
3 Credits Class 3 Lab 2
Evaluation of adjudicated persons by probation, parole agencies and correctional institutions. Emphasizes accurate and objective reporting techniques and developing treatment for rehabilitation. Prerequisites: CORR 261 and CORR 262.

CORR 280
Current Topics in Corrections
0.25-5 Credits Class .25-5 Lab 0
Current topics and issues as well as new development in the field of corrections are reviewed, studied and discussed.

CORR 290
Special Topics in Corrections Technology
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

CORR 291
Individual Study in Corrections Technology
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

CORR 292
Field Experience in Corrections Technology
1-4 Credits Class 0 Lab 12-48
On-the-job training in a corrections facility through special arrangement with an instructor.

CORR 294
Corrections Cooperative Work Experience
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

CORR 295
Corrections Practicum Seminar
1-3 Credits Class 1-3 Lab 1-2
Discussion of job-related concerns and assistance with practicum.

CORR 295A
Corrections Practicum Seminar
1 Credit Class 1 Lab 1
Discussion of job-related concerns and assistance with Practicum. Concurrent with CORR 296A. Prerequisites: Instructor permission and CORR 298.

CORR 295B
Corrections Practicum Seminar
1 Credit Class 1 Lab 1
Discussion of job-related concerns and assistance with practicum. Concurrent with CORR 296B. Prerequisites: Instructor permission and CORR 298.

CORR 296
Corrections Practicum
1-5 Credits Class 0 Lab 7-35
The student is placed in a work environment for a minimum amount of time to gain experience before graduation.

CORR 296A
Corrections Practicum
3 Credits Class 2 Lab 8
The student is placed in a work environment for a minimum amount of time to gain experience before graduation. Prerequisites: Instructor permission and CORR 298.

CORR 296B
Corrections Practicum
3 Credits Class 2 Lab 8
The student is placed in a work environment for a minimum amount of time to gain experience before graduation. Prerequisites: Instructor permission and CORR 298.

CORR 297
Corrections Observation Hour
0.5-3 Credits Class 0 Lab 8-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

CORR 298
Corrections Practicum Orientation
1 Credit Class 1 Lab 2
On the job training in the workplace of a cooperating agency. Coordinated by an instructor.

CORR 299
Corrections Field Experience
3-4 Credits Class 2 Lab 36-45
An alternative to the practicum experience offered to the second year student. The student will be placed with and work in an agency at least half-time (280 hours) during the quarter. The agency where the student is placed must be an agency within the student's career choice and be able to provide experience that supplements classroom experience. This is a special arrangement course offered at faculty discretion. Prerequisite: CORR 298.

Criminal Justice

CJ 100
Criminal Justice Systems
3 Credits Class 3 Lab 2
Introduction to law enforcement, prosecution, courts and corrections components of the system of justice in the U.S. Considers the history, philosophy and functions of these components as well as current problems and issues.

CJ 101
Orientation to Law Enforcement
1 Credit Class 1 Lab 1
Introduction to the law enforcement officer and exploration of various career choices available in the law enforcement technology.

CJ 105
Sign Language
1 Credit Class 1 Lab 1
Introduction to communication needs of the deaf community. The student learns and practices conversational sign language skills that will facilitate the provision of services to signing clients and their families.

CJ 106
Advanced Sign Language
1 Credit Class 1 Lab 1
Advanced course in sign language expands vocabulary and allows the student to become more proficient in signing. Prerequisite
requisite: CJ 105.

CJ 120
Criminal Law
4 Credits Class 4 Lab 0
History, philosophy and function of criminal law in the U.S. Common law, elements of offenses and basic legal concepts that characterize American justice.

CJ 121
Ohio Criminal Law
4 Credits Class 4 Lab 0
Comprehensive study of the Ohio Revised Code. Elements of offenses are identified and applied to hypothetical situations enabling the student to apply the law and determine appropriate charges. A consideration of the laws that govern the operation of Ohio's criminal justice system.

CJ 127
Victim Awareness
3 Credits Class 3 Lab 0
Impact of victimization and its relevance in the treatment of the offender. Impact of criminal behavior on the victim; how the offender convinces others that he is the victim; and how criminal thinking and rehabilitation. Role-playing as a technique and its use in victim awareness programs.

CJ 129
Law Enforcement Photography Seminar
0.5 Credits Class 0.5 Lab 0
Basic theories and principles of law enforcement photography. Instruction on using the Spectra Camera, close-up lens and copy stand. Using alternate light sources and crime and accident scenes will be covered.

CJ 130
Photography
2 Credits Class 2 Lab 2
Practice in the fundamentals of photography. Handling a camera with ease, determining correct exposure and producing satisfactory prints by contact enlargement. Use of filters, proper light techniques, photographing under low light conditions and the arrangement of subjects.

CJ 132
Evidentiary Photography
3 Credits Class 2 Lab 3
Photographic techniques for recording evidence and presenting photographic evidence in court. Emphasizes photographing of evidence as a component of investigations. Prerequisite: CJ 130.

CJ 143
Police Mounts
2 Credits Class 1 Lab 3
Use of the horse in mounted patrol. Rural and urban police use of mounts and mounted patrol for park service.

CJ 150
Juvenile Delinquency and Procedures
4 Credits Class 4 Lab 0
Juvenile procedures and delinquency. Causes and prevention of delinquency and the rules governing the disposition of juveniles from intake to the final adjudication.

CJ 160
Kubotan/Persuader Impact Instrument
0.5 Credit Class 0 Lab 1.5
Successful completion of this non-lethal defensive weapons course earns nationally recognized certification with the Kubotan /Persuader Impact Instrument from Monanock Lifetime Products, Inc. Includes basic grips, blocks, counter-strikes, wrist control techniques, arm bar takedowns, car removal techniques and defense against attacks. Fulfills National Park Service initial basic and annual refresher training with the mini-baton, 5 1/2 inch long, 5/8 inch diameter, as required by Law Enforcement Policy and Guideline, NPS-9, dated April 1984.

CJ 161
Impact Weapons
0.5 Credit Class 0 Lab 1.5
Instruction and training in joint manipulation and relative positions. Investigates techniques of strong side take-downs from relative position 3 and running arm locks from relative position 2 1/2, hooks, drags, escort holds, take-downs and handcuffing positions. Includes evaluation of physical weaknesses in order to compensate techniques into viable options.

CJ 165
Semi-Automatic Handgun
2 Credits Class 2 Lab 0
Safe and effective deployment of single action and double action semi-automatic handguns. Range practice is included for the development of various motor skills and will conclude with the firing of the NRTI Duty Pistol Proficiency Test and the API General Pistol Proficiency Test. Reactionary targets and the Duelatron Targeting System will be used for their instructional value. Participant must supply a duty handgun and suitable holster. Appropriate duty specific ammunition is provided. Prerequisite: Instructor permission.

CJ 166
NPS SIG Transitional Handgun
1 Credit Class 0.5 Lab 2.5
Transitional pistol course specifically limited to the SIG-Sauer family of handguns. Range practice included for the development of various psychomotor skills. Will conclude with the firing of the National Park Service Semi-Auto Proficiency Test and with the firing of the NRTI duty Pistol Evaluation Course. Prerequisite: NR 280.

CJ 180
Basic Self Defense Techniques
1 Credit Class 0 Lab 3
Awareness, preparedness and realistic tactics/techniques of self defense and how to defend against physical attack and aggressive behavior.

CJ 181
Aikido Self Defense
1 Credit Class 1 Lab 2
Aikido based self-defense study of the use of force and defensive tactics. Focuses on joint lock and joint manipulation of the wrist, elbow and shoulder. Each student should be in sound physical condition prior to participation.

CJ 182
ASP Tactical Baton Basic Course
0.5 Credit Class 0 Lab 1.5
Handling and proper application of the ASP Tactical Baton. ASP certification will be given for successful completion.

CJ 183
PPCT Defensive Tactics
1 Credit Class 1 Lab 2
Dealing with passive or resistive subjects with methods that are tactically, medically and legally proven. Specific methods include pressure points, joint locking techniques, active counter measures, baton techniques, and lateral vascular neck restraint.

CJ 184
CQPC Defensive Techniques
1 Credit Class 1 Lab 1
Defensive tactics system designed for law enforcement officers provides verbal and psychological communication skills to deescalate conflict in conjunction with physical techniques to ensure control. CQPC includes the use of simple, effective physical counter measures needed to control hostile suspects.

CJ 185
Advanced Self Defense
1 Credit Class 0 Lab 3
Includes the last five Aikido based defensive tactics and techniques for the law enforcement and corrections professional. Emphasis will be placed upon realistic "street" application in an outdoor setting.
Prerequisite: CJ 180.

CJ 190
Chemical Abuse and Dependency
3 Credits Class 3 Lab 2
Topics pertinent to drug and alcohol abuse in the U.S. Effects of stimulants, depressants and hallucinogens, identification of drugs and drug users, drug offenses, the history of drug laws, law enforcement strategies, alcoholism and treatment and prevention methods.

CJ 191
Detection of the Alcohol Impaired
1 Credit Class 1 Lab 0
Detecting the alcohol impaired motor vehicle operator. Recognizing and identifying clues available when contacting a potential violator. Topics include alcohol's affects on the human body, administering and interpreting various field sobriety tests, recognizing and interpreting evidence of alcohol related violations and case preparation and presentation.

CJ 192
Controlled Substances
1-3 Credits Class 1-3 Lab 0
Controlled substance abuse and issues surrounding their misuse. Discussion of the affects of chemical abuse on society.

CJ 210
Defensive Pistolcraft
0.5 Credit Class 0.5 Lab 0
Modern techniques of the handgun including proper grip, stance and position, sighting, and trigger control. Emphasis on proper technique of the presentation stroke. Proper weapon handling including administrative loading, down loading, immediate actions and tactical manipulation of the handgun are discussed, demonstrated and drilled. Develops skill, knowledge, and a practical experience necessary to become safe, responsible, and effective in the use of the handgun for self defense.

CJ 211
Intermediate Defensive Pistolcraft
1 Credit Class 1 Lab 0
Defensive application of the handgun. Evaluation and development of skills including live-fire steel plate precision shooting, discretionary shooting and tactical drills employing the Duelatron Electronic Targeting System and Action Target's Mover. Emphasis is placed on low-light shooting. Mental conditioning for combat, tactics, target identification and the principles of personal defense are also discussed. Prerequisite: CJ 210.

CJ 212
Advanced Defensive Pistolcraft
1 Credit Class 1 Lab 0
Defensive application of the handgun, shotgun and urban rifle. Evaluation and development of handgun and shotgun skills including live-fire steel plate precision shooting, discretionary shooting and tactical drills. Prerequisites: CJ 210 and CJ 211.

CJ 215
Beginning Firearms
1 Credit Class 1 Lab 1
Close range defensive shooting, handgun familiarization and safe handling practices. Safety, legal issues, psychological aspects of shooting and equipment selection. On the firing range the student progresses from short range single shot to rapid fire, multiple targets and low light shooting.

CJ 217
Side-Handle Baton
1 Credit Class 1 Lab 0
Successful completion of this non-lethal weapons course earns national certification with the side-handle baton (PR-24) from Monanock Lifetime Products, Inc. Fulfills National Park Service initial basic training and annual refresher training with the side-handle baton as required by Law Enforcement Policy and Guideline NPS-9, April 1984.

CJ 218
Intermediate Handgun
1 Credit Class 1 Lab 0
Development of proficiency in speed and accuracy. Reactive Targets, the Dueletron Targeting System and the Mover Target System are used in practical application of techniques developed.

CJ 222
Laws of Arrest, Search and Seizure
3 Credits Class 3 Lab 0
Procedural law relating to the powers of government in the areas of arrest, search and seizure. Constitutional law, which provides the basis for these restrictions, is the major area of study. Major Supreme Court decisions in each area are examined to determine the rationale behind procedural restrictions.

CJ 225
Basic River Rescue
2 Credits Class 1 Lab 3
Theory and practical applications of moving water rescue techniques. Emphasizes laboratory activities. Active participation in organized teams which perform mock river rescues of trapped people in hazardous water situations.

CJ 250
Criminology
3 Credits Class 3 Lab 0
Introduces concerns that constitute criminology as a science. Terminology, the nature and extent of crime, the causes of crime and criminality, and the impact of crime on social change.

CJ 251
Readings in Crime and Criminality
3 Credits Class 3 Lab 0
Understanding the nature of crime and criminality through a non-textbook approach. Selected readings from fictional and/or non-fictional works demonstrate how writers and essayists have perceived crime and criminals in society. The student compares these interpretations to theories advanced by criminologists.

CJ 263
Crisis Recognition and Referral
3 Credits Class 3 Lab 0
Developed for paraprofessionals who work in helping relationships. Creates an awareness of crises that develop or occur suddenly in the lives of people and identifies helping behaviors used until professional help is obtained or referral is completed. Various community resources are identified.

CJ 290
Special Topics in Public Safety Service
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

CJ 291
Security Issues and Techniques
2 Credits Class 2 Lab 2
Issues and practices of maintaining security in a criminal justice setting. The relationship between security and treatment functions, the security role of the treatment specialist and security technology. Security practices include clothed body searches, restraint devices, prisoner transport and cell searches.

CJ 292
Field Experience in Criminal Justice
1-4 Credits Class 0 Lab 12-48
On-the-job training in a criminal justice facility through special arrangement with an instructor.

CJ 294
Criminal Justice Cooperative Work Experience
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

CJ 295
Criminal Justice Practicum Seminar
1-3 Credits Class 1-3 Lab 0
Discussion of job-related concerns and assistance with practicum.

CJ 296
Practicum in Criminal Justice
1-6 Credits Class 0 Lab 7-42
The student is placed in a work environment for a minimum amount of time to gain experience before graduation.

CJ 297
Criminal Justice Observation Hour
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

Culinary Arts

CULA 100
Overview of Culinary Arts in Institutions
3 Credits Class 3 Lab 0
Overview of the field of culinary arts. Topics include history of food service, safety and sanitation, equipment identification and usage, cooking methods, recipes, menus and presentation of food products.

CULA 101
Introduction to Culinary Arts
2 Credits Class 2 Lab 0
Introduction to the field of culinary arts includes study of culinary history, the role of the chef, kitchen organization, tools and equipment, cooking methods, and basic knife handling and sharpening skills.

CULA 105
Pastries and Desserts
1-3 Credits Class 1-2 Lab 2-3
Preparation of Danish pastries, croissants, puff pastry, choux paste and tortes. Includes introduction to marzipan, gum paste, chocolate molding and pulled sugar. Prerequisite: HRCA 115.

CULA 106
Meat, Poultry and Seafood Procedures
3 Credits Class 2 Lab 3
Meats, poultry and seafood used by the food service industry. Includes identification, grading, yield and portion control. The student participates in cutting various products.

CULA 107Basic Garde Manger
3 Credits Class 2 Lab 3
Creation of buffet table arrangements and displays using cold food materials with emphasis on the use of tools, ice, vegetables, butter and fruit in the preparation.

CULA 108
Advanced Garde Manger
3 Credits Class 2 Lab 3
Production of various forced meat products, marinades and brines. Includes procedures for curing and smoking products and working with aspic and chaud froid. Prerequisite: CULA 107.

CULA 130
Introduction to the Baking Industry
2 Credits Class 2 Lab 0
Baking history, terminology and organization. Includes study of heat transfer, baking procedures, tools and equipment. Baking careers and professional organizations are also presented.

CULA 131
Baking Technology
3 Credits Class 2 Lab 3
The science of baking with a concentration on food nutrition and food chemistry. Develops a basic understanding of baking concepts such as gluten development and the use of leavening agents. Prerequisites: CULA 130 and HRCA 115.

CULA 132
Baking Lab I
5 Credits Class 1 Lab 12
Introduces to the commercial bakeshop and provides hands-on experience for the beginning baker. Each student is required to complete 132 hours of production in the Quality Inn kitchen. Prerequisites: CULA 130 and HRCA 115.

CULA 133
Baking Lab II
5 Credits Class 1 Lab 12
Supervision, production, organization, and advanced baking techniques. Students will log a total of 132 hours in a baking facility and one hour weekly with the instructor for orientation.

CULA 134
Baking Lab III
5 Credits Class 1 Lab 12
Students will log a total of 132 hours of high volume production baking in a baking facility. Students will meet weekly with instructor for one hour of orientation.

CULA 136
Yeast Dough Production
3 Credits Class 2 Lab 3
Concentration on yeast fermentation, retarding and gluten development. The student will produce a wide variety of yeast dough and yeast products. Prerequisites: CULA 130 and HRCA 115.

CULA 137
Cake Production
3 Credits Class 2 Lab 3
Baking and decorating various types of cakes and tortes. Provides hands-on baking and advanced decorating techniques for all occasions. Prerequisites: CULA 130 and HRCA 115.

CULA 138
Classical Pastries
3 Credits Class 2 Lab 3
Introduction to classical pastries and sugarwork including puff pastry products, choux paste products and classical desserts, advanced decorating techniques and edible display pieces. Prerequisites: CULA 130 and HRCA 115.

CULA 139
Cookie Development
3 Credits Class 2 Lab 3
Techniques of producing a variety of cookies stressing ingredients and their functions. Hands-on experience baking and decorating cookies. Prerequisite: HRCA 115.

CULA 150
Nutrition in Community Food Service Operations
3 Credits Class 3 Lab 0
Elements of hospitality menu design incorporating current nutritional guidelines.

CULA 201
Culinary Arts Lab I
7 Credits Class 1 Lab 18
Introduction to the kitchen environment through on-the-job training in various kitchen positions at the Quality Inn Hocking Valley. Hours include weekends, evenings, days and holidays.

CULA 212
Culinary Arts Lab II
7 Credits Class 1 Lab 18
Assignment of specific work duties at the Quality Inn Hocking Valley for an average of 20 hours per week. During the quarter, students are instructed in and will perform basic tasks associated with kitchen and dining room operations. Work days include morning, afternoons, evenings, weekends and holidays.

CULA 213
Culinary Arts Lab III
7 Credits Class 1 Lab 18
Scheduled for an average 20 hours per week at the Quality Inn Hocking Valley, the student assumes a leadership role in all areas of the kitchen with an emphasis on supervisory techniques. Hours include weekends, mornings, nights and holidays.

CULA 217
Classical and International Cuisine
1-3 Credits Class 1-2 Lab 2-3
An opportunity for the student skilled in cookery to expand knowledge of food preparation into the area of world-respected traditional dishes. Includes conventional methods of preparation for gourmet recipes and convenience foods. Prerequisites: HRCA 111, HRCA 112.

CULA 217A
Italian Cookery
1 Credit Class 1 Lab 1

CULA 217B
Greek Cookery
1 Credit Class 1 Lab 1

CULA 217C
French Cookery
1 Credit Class 1 Lab 1

CULA 218
American Regional Cuisine
3 Credits Class 2 Lab 3
Introduction to American cuisines with an emphasis on volume food production of American regional cuisines through plating, garnishing and time management. Cuisines are studied, and menus are planned, prepared and served. Prerequisites: HRCA 111 and HRCA 112.

CULA 218A
Spicy Southern Foods
1 Credit Class 1 Lab 1
Spicy foods from the southwest, creative cajun cooking and Caribbean food. Wild game will be featured from the Southwest Region.

CULA 218B
Comfort Foods
1 Credit Class 1 Lab 1
Traditional methods of cooking with an emphasis on making meat and potatoes lighter and more interesting.

CULA 218C
Lean Cuisine
1 Credit Class 1 Lab 1
The west coast has been the major motivator in the areas of low calorie foods while creating new methods to reserve flavor. This class will discuss the oriental influence of this region and the influence of the wealth of seafood available. Wines which are a major influence on the food of the region will be covered.

CULA 228
Delicatessen Operations
2 Credits Class 2 Lab 1
Delicatessen operations including deli foods, products and materials, display case set-up, gift baskets, organization and management.

CULA 229
Culinary Arts Salon
0.5-1 Credits Class 0.5 Lab 1.5-2.5
Preparation for the challenges of hot and cold culinary salons. Show pieces, buffet set-up, materials and equipment flow, and team organization.

CULA 262
Candy and Confections
3 Credits Class 2 Lab 3
Candy making techniques with an emphasis on chocolate molding, dipping and enrobing, hard candies, marzipan work and specialty desserts.

CULA 263
Bakeshop Operations
2 Credits Class 2 Lab 1
Development, management and organization of wholesale, retail and in-house bake and pastry shops.

CULA 270
Catering
2 Credits Class 2 Lab 1
Review and discussion of special equipment and laws regarding the movement and serving of food. Includes planning an off premise catering function and determining the profitability of the function.

CULA 281
Food Lab I
3 Credits Class 2 Lab 3
The student, assigned to specific work groups in an institutional setting of Hocking College, practices basic techniques of food preparation, sanitation and dining room operation. The development of behaviors which demonstrate cooperative work habits are emphasized.

CULA 282
Food Lab II
3 Credits Class 2 Lab 3
The student, assigned to specific work groups in an institutional setting of Hocking College, practices techniques of food preparation, sanitation, plate and multiple course presentation and dining room operation. Emphasis is placed on the behavior which demonstrates cooperative work habits and food production techniques.

CULA 283
Food Lab III
3 Credits Class 2 Lab 3
The student, assigned to specific work groups in an institutional setting of Hocking College, practices advanced food preparation skills, kitchen and dining room management skills, advanced table service, sanitation and critical analysis of operation efficiency.

CULA 284
Food Lab IV
3 Credits Class 2 Lab 3
Food preparation lab experience in an institutional setting.

CULA 285
Food Lab V
3 Credits Class 2 Lab 3
Food preparation lab experience in an institutional setting.

CULA 286
Food Lab VI
3 Credits Class 2 Lab 3
Food preparation lab experience in an institutional setting.

CULA 290
Special Topics in Culinary Arts
1-5 Credits Class 1-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

CULA 291
Individual Study in Culinary Arts
0.25-5 Credits Class 0.25-5 Lab 0
Individual study or research. Topics are arranged with instructor permission on an individual basis.

CULA 292
Field Experience in Culinary Arts
1-4 Credits Class 0 Lab 12-48
On-the-job training in a culinary arts facility through special arrangement with an instructor.

CULA 293
Culinary Arts Directed Practice
1-8 Credits Class 0 Lab 5-40
Directed practice instruction in the performance of a particular function from an assigned instructor, and then observed and critiqued by the instructor in a repeat performance of that function.

CULA 294
Cooperative Work Experience in Culinary Arts
1-5 Credits Class 0 Lab 10-50
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

CULA 295
Culinary Arts Practicum Seminar
1-3 Credits Class 1-3 Lab 0
Discussion of job-related concerns and assistance with practicum.

CULA 296
Practicum in Culinary Arts
1-6 Credits Class 7-42 Lab 0
The student is placed in a work environment for a minimum amount of time to gain experience before graduation.

CULA 297
Culinary Arts Observation Hour
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

CULA 298
Culinary Arts Internship
3-6 Credits Class 0 Lab 20-40
On the job training in the workplace of a cooperating agency. Coordinated by an instructor.

CULA 299
Culinary Arts Internship Seminar
3 Credits Class 3 Lab 0
Discussion of internship experiences, objectives, and evaluation.

Dietetic

DT 100 PACE
Survey of Dietetics
1 Credit Class 1 Lab 0
Survey of the dietetics profession and the educational requirements and responsibilities of dietary managers, technicians and registered dietitians in a variety of health care facilities and professional levels.

DT 101
Dietetic Directed Practice I
2 Credits Class 1 Lab 7
Provides opportunities for the student to practice material taught in course work offered during the first quarter.
Prerequisites: DT 102, HRCA 110.

DT 102 PACE
Basic Nutrition
4 Credits Class 4 Lab 0
Effect of nutritional status on health, detailing specific nutrient requirements of adults to maintain good health. Topics include nutrient sources and functions, energy needs, digestion and metabolism, food guide pyramid, dietary guidelines, provision of good nutrition to low income families, food and nutrition misconceptions and food labeling laws.

DT 103
Food Preparation Principles
3 Credits Class 2 Lab 4
Principles of food preparation of eggs and dairy products, breads, fruits, vegetables, soups and sauces, meat, poultry and fish. Emphasis on proper techniques to prepare palatable foods while retaining nutritional value.

DT 104
Food Preparation Principles for the Child
2 Credits Class 1 Lab 3
Food preparation principles appropriate for infants and children. Topics include food safety, food sanitation, food-borne illness, applications of menu planning and for preparation techniques.

DT 106
Food Production Management
3 Credits Class 3 Lab 0
Planning, organizing, controlling and evaluating a food service operation in a health care institution. Topics include recipe standardization, portion control, inventory control, production scheduling, equipment use and maintenance, food service methods and quality assurance.

DT 110 PACE
Applied Nutrition
3 Credits Class 3 Lab 0
Description of the particular nutritional concerns of people throughout the lifespan: pregnancy, childhood, adolescence, maturity, dental health, physical exercise, weight maintenance and the interpretation of nutrition information and diet fads. Prerequisite: DT 102.

DT 110A PACE
Nutrition in Growth and Development
1 Credit Class 1 Lab 0
Nutritional needs during growth such as pregnancy, lactation, infancy and childhood. Includes menu planning for such individuals as well as special needs of each population group. Prerequisite: DT 102 or NT 103.

DT 110B PACE
Adult Nutrition
1 Credit Class 1 Lab 0
Nutritional needs of the adult and elderly. Weight control theories and interventions are also addressed. Prerequisite: DT 102 or NT 103.

DT 110C PACE
Nutrition and Lifestyles
1 Credit Class 1 Lab 0
Discussion of sports nutrition, vegetarianism and food quackery. Includes menu planning for special needs of athletes and vegetarians.

DT 111
Dietetic Directed Practice II
2 Credits Class 1 Lab 7
Practice of material taught in course work offered during the second quarter. Assign-ment to a hospital or long term care facility one day per week and meets with an instructor once a week. Assignments include diet histories, food production and office procedures. Prerequisites: DT 101, DT 102 and HRCA 110. Concurrent with DT 103, DT 106, DT 120, HC 100, HC 102 and coordinator permission.

DT 119
Food Purchasing for Health Care Institutions
3 Credits Class 3 Lab 0
Food purchasing function of a health care institution. Government regulations and controls, development and use of forms to aid in the purchasing operation, writing specifications to insure standards in food commodities, exploring the varieties and purchase forms of major food categories and determining amounts of food to purchase for number and size of portions.

DT 120 PACE
Normal and Modified Menu Planning
3 Credits Class 3 Lab 0
Individual and institutional menu planning. Practice in using the diet manual to plan basic modified diets for persons in health care facilities including modifications of sodium, diabetic, fiber, bland, protein, fat and liquid diets. Prerequisite: DT 102.

DT 121
Dietetic Directed Practice III
2 Credits Class 1 Lab 7
An opportunity to practice material taught in the course work offered during the third quarter. Concurrent with DT 119, DT 122 and HC 101. Prerequisites: DT 111 and coordinator permission.

DT 122
Supervision in Dietetics
3 Credits Class 3 Lab 0
Leadership and supervision characteristics of people who supervise employees in a dietary department. Employee needs, leadership characteristics and styles, motivation, direction and control, dealing with personnel problems, interviewing, training, counseling and evaluation employees and effective communications at work.

DT 200 PACE
Diet Therapy I
3 Credits Class 3 Lab 0
Nutritional intervention used in diseases of the endocrine, cardiovascular and renal systems. Concurrent with HC 110. Prerequisites: DT 110 and DT 120.

DT 202 PACE
Nutrition Care Process
2 Credit Class 2 Lab 0
Assessment, planning, implementation, evaluation and documentation responsibilities of the dietetic technician. Nutrition care process is reviewed including charting, nutrition care plans, diet histories and the clinical, biochemical and anthropometric indices of nutritional status. Concurrent with DT 200, HC 110. Prerequisites: DT 110 and HC 100.

DT 205
Dietetic Directed Practice IV
2 Credits Class 0 Lab 8
Practice of nutrition care procedures and food service management principles in health care settings. Work with patients who require therapeutic management of endocrine, cardiovascular or renal disease through diet modification. Includes purchasing, tray line supervision, cleaning and sanitizing procedures, quality assurance and developing a product information file. Concurrent with DT 200, DT 202, HRCA 223, MICS 110 or MICS 200. Prerequisites: DT 121 and coordinator permission

DT 210 PACE
Diet Therapy II
3 Credits Class 3 Lab 0
Nutritional intervention used in febrile illness, diseases of the gastrointestinal, musculoskeletal and biliary systems, surgical and stressed patients, neoplastic diseases, allergies, food medication interactions and childhood illnesses. Concurrent with DT 120. Prerequisites: DT 200.

DT 212 PACE
Nutrition Education Methods
2 Credits Class 2 Lab 0
Development of skills in the teaching-learning process in nutrition education with individuals and groups. The student develops and uses lesson plans, teaching materials and audiovisual aids in nutrition education. Prerequisites: DT 110 and DT 200.

DT 215
Dietetic Directed Practice V
2 Credits Class 0 Lab 8
Practice of nutrition care procedures and food service management in a health care setting. The student works with patients who require dietary management of gastrointestinal, biliary, and neoplastic diseases, with surgical patients, and with patients who are physically stressed and require nutrition supplementation. Assignments also include employee training and evaluation, safety engineering and training, and planning production schedules. Concurrent with DT 212 and HC 120. Prerequisites: DT 205, DT 210, DT 230 and coordinator permission.

DT 220
Current Topics in Dietetics
2 Credits Class 2 Lab 0
An opportunity to explore topics of professional interest in greater depth and to present nutrition literature findings. Prerequisite: DT 200.

DT 225
Dietetic Directed Practice VI
3 Credits Class 0 Lab 12
Practice of nutrition care in the hospital dietary department, community nutrition education program, school food service and in long-term care facilities. The student assesses dietary habits and nutritional needs, writes care plans, performs dietary department activities, evaluates modified recipes and instructs patients as assigned. Concurrent with DT 220 and HC 106. Prerequisites: DT 215 and coordinator permission.

DT 230
Management of Quantity Food Systems
3 Credits Class 3 Lab 0
Overview of institutional food services. Management organization, menu planning, material control, personnel methods, equipment and facilities are discussed from an institutional perspective. Prerequisites: DT 120 and DT 122.

DT 290
Special Topics in Dietetics
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

DT 291
Individual Study in Dietetics
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

DT 292
Field Experience in Dietetics
1-4 Credits Class 0 Lab 12-48
On-the-job training in a dietetics facility through special arrangement with an instructor.

DT 293
Dietetic Directed Practice
1-8 Credits Class 0 Lab 5-40
Directed practice instruction in the performance of a particular function from an assigned instructor, and then observed and critiqued by the instructor in a repeat performance of that function.

DT 294
Dietetic Cooperative Work Experience
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

DT 295
Dietetic Practicum Seminar
1-3 Credits Class 1-3 Lab 0
Discussion of job-related concerns and assistance with practicum.

DT 296
Practicum in Dietetics
1-6 Credits Class 0 Lab 7-42
The student is placed in a work environment for a minimum amount of time to gain experience before graduation.

DT 297
Dietetic Observation Hour
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

DT 298
Dietetic Internship
3-6 Credits Class 0 Lab 20-40
On the job training in the workplace of a cooperating agency. Coordinated by an instructor.

DT 299
Dietetic Internship Seminar
3 Credits Class 3 Lab 0
Discussion of internship experiences, objectives, and evaluation.

Drafting and Design

DD 100
Blueprint Reading
0.5-3 Credits Class 0.5-3 Lab 0
Reading and comprehension of blueprints ranging from simple to complex machine parts and/or simple to complex architectural structures.

DD 101 PACE
Engineering Drawing I
3 Credits Class 2 Lab 4
Provides a basic understanding and interpretation of the language of drawing for the beginning engineering student. Includes an introduction to the language of drawing, use and care of drafting instruments, lettering, geometric construction, sketching, multi-view drawing and dimensioning.

DD 102 PACE
Engineering Drawing II
3 Credits Class 2 Lab 4
Intermediate drafting concepts including sectioning, auxiliary views, parallel line pictorial drawings, working drawings and piping drawings. Prerequisite: DD 101.

DD 103 PACE
Engineering Drawing III
3 Credits Class 2 Lab 4
Specialized mechanical drafting concepts and detailing. Includes sheet metal layouts, gearing, cam calculations and specification, threads, fasteners, springs, introductory geometric tolerancing and true positioning, and presentation graphics. Prerequisites: DD 101 and DD 102.

DD 104 PACE
Introduction to AutoCAD
1 Credit Class 1 Lab 1
Introduction to personal computer based drafting. Explanation of computer drawing and computer drawing applications. Includes an overview of MS-DOS, highlighting the common features used in AutoCAD.

DD 105 PACE
AutoCAD Applications
2 Credits Class 1 Lab 3
Utilization of drafting software including commands and techniques necessary to complete orthographic mechanical drawings. Prerequisite: DD 101.

DD 200 **PACE**
Architecture I
4 Credits **Class 3** **Lab 3**
Terms, symbols and details of an architectural set of working drawings as applied to the design of residential buildings. Prerequisites: DD 101 and DD 102.

DD 201 **PACE**
Architecture II
3 Credits **Class 2** **Lab 3**
Terms, symbols, details and codes of an architectural set of working drawings as applied to the design of commercial buildings. Prerequisites: DD 101, DD 102 and DD 200.

DD 202 **PACE**
Advanced Drafting/CAD
4 Credits **Class 3** **Lab 3**
Technical drafting representation as applied to industrial products and process. Computer-aided and traditional drafting used in the study of advanced dimensioning practices, tolerancing, design drawings, working drawings and welding drawings. Prerequisites: DD 101, DD 102 and DD 103.

DD 203
Electrical Drawing
3 Credits **Class 2** **Lab 3**
Electrical drawing standards, graphic symbols, diagram layouts and part identification through construction of schematic drawings, block diagrams and printed circuit board layout. Prerequisite: DD 101.

DD 204 **PACE**
Descriptive Geometry
3 Credits **Class 2** **Lab 4**
Graphic solutions to problems relating to points, lines, planes and solids. Includes space measurements and visualization, first auxiliary views and measurements, line definition and description, second auxiliary views, plane definition and description, perpendiculars, skew lines and solids. Prerequisites: DD 101 and DD 102.

DD 205 **PACE**
Die Design
3 Credits **Class 2** **Lab 4**
Introduction to the design and detailing of typical industrial die sets. Topics include die calculation, blanking dies, piercing dies and bending dies. Prerequisites: DD 101, DD 102, DD 103 and DD 202.

DD 206
Graphics
4 Credits **Class 3** **Lab 3**
Further investigation of the computer-aided drafting software AutoCAD. Advanced procedures and techniques used to automate and customize drafting on the computer. Prerequisites: DD 101 and DD 102.

DD 207 **PACE**
Electronic Drawing
3 Credits **Class 2** **Lab 4**
Non-major course introducing drafting concepts and procedures as related to the production of various types of drawings used in electronic technologies. Topics include electrical drawing standards, electronic symbology, diagram layouts and parts identification.

DD 208 **PACE**
Introduction to CAD
1 Credit **Class 1** **Lab 1**
Basic concepts of computer-aided drafting. Includes discussion and operation of personal computer based CAD systems.

DD 210
Geometric Tolerancing and Dimensioning
2 Credits **Class 2** **Lab 0**
Methods of indicating geometric tolerances by means of geometric characteristic symbols are discussed and applied to specific situations. Prerequisites: DD 101, DD 102 and DD 103.

DD 290
Special Topics in Drafting and Design
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

DD 291
Individual Study in Drafting and Design
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged with instructor permission on an individual basis.

DD 292
Field Experience in Drafting and Design
1-4 Credits Class 0 Lab 12-48
On-the-job training in a drafting and design facility through special arrangement with an instructor.

DD 294
Drafting Cooperative Work Experience
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

DD 295
Drafting and Design Practicum Seminar
1-3 Credits Class 1-3 Lab 0
Discussion of job-related concerns and assistance with practicum.

DD 296
Drafting Practicum
1-6 Credits Class 0 Lab 7-42
The student is placed in a work environment for a minimum amount of time to gain experience before graduation.

DD 297
Observation Hour in Drafting
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

DD 298
Drafting Internship
3-6 Credits Class 0 Lab 20-40
On the job training in the workplace of a cooperating agency. Coordinated by an instructor.

DD 299
Drafting Internship Seminar
3 Credits Class 3 Lab 0
Discussion of internship experiences, objectives, and evaluation.

Economics

ECON 140
Principles of Microeconomics
4 Credits Class 4 Lab 0
Introduction to major principles and issues of American economics. Measuring the economy, income distribution, unemployment, inflation, profit, taxes and current economic issues and trends affecting the student's technical field.

ECON 240
Principles of Macroeconomics
4 Credits Class 4 Lab 0
Study of economics in terms of whole systems and the interrelationship among sectors of the economy.

ECON 290
Special Topics in Economics
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

ECON 291
Individual Study in Economics
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

Electrical Engineering

EE 109
Electronics I
4 Credits Class 3 Lab 3
Study of electronic fundamentals. Covers series and parallel resonant circuits, low pass, high pass, band pass, band stop filters, diode rectification, power supply filtering, transistor fundamentals, power amplifiers and common amplifier configurations. Prerequisite: EE 118.

EE 115
Electronics II
4 Credits Class 3 Lab 3
Operation and application of field effect transistors and thrustors, amplifier operation and configurations, oscillators and wave shaping circuits, and schematic interpretation including DC biasing and signal flow. Lab will utilize Lab-Volt and Digicomm equipment in addition to circuit construction with individual components. Prerequisite: EE 109.

EE 118
Electricity for Engineers
4 Credits Class 3 Lab 3
Fundamental components of electronics (current, voltage, and resistance). Direct current and alternating current circuits presented in detail. Inductance, transformers, and capacitance also covered. Basic test equipment operation and the construction of basic DC and AC series, parallel and series-parallel circuits.

EE 119
Electronic Communication I
4 Credits Class 3 Lab 3
Introduction to electronic communications. Basic operation of the telephone, a central office, private branched exchanges, mobile communications and cellular telephones, transmission line theory, radio and television systems. Introduction to audio and video tape recorders, color television cameras and monitors. Laboratory exercises will use Lab Volt and Digicomm equipment.

EE 120
Electronic Communication II
4 Credits Class 3 Lab 3
Digital communication systems and techniques. Includes analog and digital pulse modulation procedures, frequency and time division multiplexing and data communications to the public telephone network. Laboratory exercises use the digital Lab Volt and Digicomm modulation trainer equipment. Prerequisite: EE 119.

EE 122
Electronic Communication III
4 Credits Class 3 Lab 3
Radio frequency (RF) aspects of broadcasting and telecommunication including electrical and radio frequency safety precautions, amplitude modulation (AM), angle modulation, key communication circuits, transmission line theory, antennas and radio wave propagation. Prerequisites: EE 119 and EE 120.

EE 123
Electronic Applications
2 Credits Class 1 Lab 3
Use of solid state devices in practical applications by apply knowledge gained during lecture to perform experiments relating to the current class topic. As a practical test each student will assemble, test and demonstrate a line tracer robot. Prerequisites: EE 109 and EGR 209.

EE 211
Communication Systems II
4 Credits Class 4 Lab 2
Microwave frequency range and use of microwaves. Use of test equipment including attenuators, frequency meters, couplers, tuners, detectors, slotted line and loads. Prerequisites: EE 105, EE 106 and EE 210.

EE 215
Fundamentals of Microprocessors
4 Credits Class 3 Lab 3
Fundamentals of microprocessors and microcomputers including the structure of microprocessor hardware, microcomputer application and fundamental concepts of computer programming. Prerequisites: EE 115 and EE 262.

EE 225
Industrial Electronics I
4 Credits Class 3 Lab 3
Electronic equipment, circuits and technologies used by industry for machine control. Includes visits to manufacturing facilities for observation of electronic equipment in an industrial setting. The student will build, test and troubleshoot industrial control circuits using sensors, motors and relays. Prerequisites: EE 115 and EE 262.

EE 226
Electronic Certification
3 Credits Class 3 Lab 2
Preparation for the Certified Electronics Technician test from ISCET. Includes a review of fundamental electronic principles, math, AC and DC circuits, transistors, troubleshooting and repair techniques. The student is not required to take the CET exam at the end of the course.

EE 227
Current Topics and Technologies
0.25-5 Credits Class 0.25-5 Lab 0
Concepts relevant to the field of electronics through the exposure to state-of-the-art electronic equipment and technology.

EE 228
Industrial Electronics II
4 Credits Class 3 Lab 3
Industrial electrical and electronic control circuits including interfacing electronic and high power circuits, control logic and fundamental concepts of programmable logic controllers. Prerequisite: EE 225.

EE 230
Linear IC's
4 Credits Class 3 Lab 3
Application of operational amplifiers, comparators, phase locked loops, voltage regulators and other linear integrated circuits. Linear and switching power supplies are also discussed. Prerequisite: EE 115.

EE 258
Robotics and Computers
3 Credits Class 2 Lab 3
Robotics hardware, software and associated equipment. Includes a program using a five-axis robot in a simulated work-cell. Computer interfacing and control applications are also discussed. Prerequisites: EE 215 and MICS 110.

EE 262
Digital Logic II
4 Credits Class 3 Lab 3
Flip-flops, one shots, asynchronous counters, synchronous counters, IC up/down counters and troubleshooting techniques. The student builds digital circuits using both digital IC's and a digital logic trainer. Prerequisite: EGR 209.

EE 290
Special Topics in Electronic Technology
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

EE 291
Individual Study in Electronic Technology
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

EE 292
Field Experience in Electronics
1-4 Credits Class 0 Lab 12-48
On-the-job training in an electronics facility through special arrangement with an instructor.

EE 294
Electronics Cooperative Work Experience
1-4 Credits Class 0 Lab 10-40
An on- and off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must also be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

EE 295
Electronics Practicum Seminar
1-3 Credits Class 1-3 Lab 0
Discussion of job-related concerns and assistance with practicum.

EE 296
Electronics Practicum
2-6 Credits Class 1-3 Lab 8-24
The student is placed in a work environment for a minimum amount of time to gain experience before graduation.

EE 297
Observation Hour in Electronics
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

EE 298
Electronics Internship
3-6 Credits Class 0 Lab 20-40
On the job training in the workplace of a cooperating agency. Coordinated by an instructor.

EE 299
Electronics Internship Seminar
3 Credits Class 3 Lab 0
Discussion of internship experiences, objectives, and evaluation.

Emergency Medical

EM 100
Emergency Victim Care (EMT-A)
6 Credits Class 4 Lab 7
Medical injuries and illness encountered in emergency situations. The student learns to recognize symptoms and apply treatment for stabilizing the patient at the emergency scene, while moving a victim to or from the emergency vehicle and while enroute to definitive care. Includes hospital clinical experience. Meets the requirements for certification of emergency medical technician-ambulance (EMT-A), according to Section 4731.84 of the Ohio Revised Code. Prerequisite: See instructor.

EM 101
EMT Clinical Experience I
2 Credits Class 0 Lab 8
Introduction to the hospital environment, medical procedures and the complex interrelationship of total patient care. Includes observation time for learning the functions of the members of the patient care team. Experience with rescue squads arranged on an individual basis. Prerequisite: See instructor.

EM 103
Orientation to Emergency Services
2 Credits Class 2 Lab 2
Introduction to duties, responsibilities and concerns of emergency personnel. Emphasizes the legal and ethical aspects of all levels of training in the emergency field. Training methods and simulated application of skills will be introduced.

EM 105
Pediatric Advanced Life Support
1 Credit Class 1 Lab 1
Emergency assessment and treatment for pediatric patients in trauma and cardiac situations.

EM 106
EKG Interpretation
1 Credit Class 1 Lab 0
Basic knowledge and skills needed to read and interpret monitor lead electrocardiograms. Included are basic anatomy and physiology of the heart with emphasis on the conduction system, electromechanical response, use of EKG monitors and electrode placement and interpretation of both static and dynamic EKG rhythms.

EM 109
Emergency Victim Care Refresher Course
2 Credits Class 2 Lab 0
U.S. Department of Transportation approved refresher course for the student who has completed the basic Emergency Victim Care course. Meets the requirements for recertification of EMT-A's, according to Section 4731.86 of the Ohio Revised Code.

EM 110
EMT Paramedic I
7 Credits Class 6 Lab 4
Begins the study of the Department of Transportation National Standards Curriculum. Includes the role of the paramedic, patient assessment, fluids and shock, general pharmacology and administration of epinephrine, respiratory, cardiovascular, central nervous system and soft tissue. Procedures necessary for the care of patients with selected conditions, subcutaneous and intramuscular injections, venipuncture and intravenous therapy, EOA and endotracheal intubation, cardiac dysrhythmias, defibrillation and neurological examination. Prerequisites: EM 100 and EM 119.

EM 111
EMT Clinical Experience II
2 Credits Class 0 Lab 8
Practical hospital experience in a variety of patient care areas. Emphasizes cardiac and respiratory care and treatment of the acutely-ill patient. Prerequisites: EM 100, EM 101, EM 103, EM 119, HC 106 and quarter one technical courses.

EM 113
EMT Squad Experience I
2 Credits Class 0 Lab 8
Practical vehicle-clinical observation and experience including assisting with procedures within the scope of the paramedic under the direct supervision of a squad paramedic preceptor. Prerequisites: EM 100, EM 101 and EM 103.

EM 114
EMT Squad Experience II
2 Credits Class 0 Lab 8
Practical vehicle-clinical observation and experience. Training includes assisting with procedures within the scope of the paramedic under the direct supervision of a squad paramedic preceptor. Prerequisites: EM 100, EM 101, EM 102, EM 103, EM 119, HC 106 and quarter one technical courses.

EM 116
Introduction to Aeromedical Evac
1 Credit Class 1 Lab 0
Setup of landing zone, proper approach to the aircraft, loading and unloading patients and procedures needed before aircraft arrival. Prerequisites: EM 100 and EM 103.

EM 118
Advanced EMT-A Clinical
1 Credit Class 0 Lab 5
Practical hospital experience in a variety of patient care areas. Emphasizes intravenous therapy, drawing blood and subcutaneous injections of epinephrine. Prerequisite: See instructor.

EM 119
Advanced EMT-Ambulance
4 Credits Class 3 Lab 3
Begins the study of the Department of Transportation (DOT) National Standards Curriculum. Includes the study of pathophysiology, symptomatology and treatment of select medical/surgical conditions. Emphasizes transition from EMT to EMT-Advanced and includes patient body systems, patient assessment, recognition of acute medical emergencies and single or multiple traumas. The laboratory component includes procedures necessary for the care of patients requiring invasive therapy techniques, esophageal obturator airway, and use of MAST anti-shock trousers. Prerequisite: See instructor.

EM 120
EMT Paramedic II
7 Credits Class 6 Lab 4
Continues the objectives of the DOT National Standards Curriculum for EMT-Paramedics. Includes training in the areas of musculoskeletal medical emergencies, obstetrics, pediatrics, emotionally disturbed patients, telemetry and communications and multi-trauma. The lab includes pediatric assessment, criothyrotomy, advanced dysrhythmia recognition and treatment, radio communication and integration of previously learned skills. Prerequisite: EM 110.

EM 121
EMT Clinical Experience III
2 Credits Class 0 Lab 8
Experience in clinical areas needed by each student to complete the objectives of the DOT National Standards Curriculum for EMT-Paramedics. Commonly used clinical areas include coronary care units, intensive care units, emergency rooms, obstetrics, pediatrics, operating rooms and selected specialties. Prerequisites: EM 110, EM 111, EM 114, EM 119 and completion of quarter one and two technical courses.

EM 123
Rappelling and Rope Techniques
1.5 Credits Class 0.75 Lab 2.25
Familiarization with the principles of rappelling. Includes lab experience.

EM 125
Rescue and Rappelling
1 Credit Class 1 Lab 2
Principles of extrication and patient handling. Laboratory experience and simulation in using light rescue equipment appropriate for a variety of crisis situations. Includes transportation of the injured. Prerequisites: EM 100 and EM 101.

EM 126
Search and Rescue Introduction
1.5 Credits Class 1 Lab 1.5
Designed and approved by the National Association of Search and Rescue (NASAR). The successful participant receives a certificate from NASAR. Information and training for use by local search and rescue personnel in the search for persons lost, injured or killed in the outdoors and for missing aircraft or watercraft. Includes two-way radio equipment, use of map and compass, the three types of searches, lost person questionnaires, necessary equipment/ clothing, victim evacuation techniques and crime scene procedures. Participants are required to provide a 24-hour ready pack for use during the program.

EM 127
Basic Trauma Life Support (BTLS)
1 Credit Class 1 Lab 1
Designed for paramedics established by the American College of Emergency Physicians in the latest technology of rapid trauma assessment, treatment and transport. Prerequisites: EM 100 and EM 119.

EM 140
EMT Paramedic III
7 Credits Class 6 Lab 4
Completes the objectives of the DOT National Standards Curriculum for EMT Paramedics. Includes training in the areas of obstetrics, pediatrics and emotionally disturbed patients. Includes psychiatric assessment, urinary catheterization, 12 lead EKG, advanced dysrhythmia recognition and treatment.

EM 142
Defensive Driving & Emergency Vehicle Operation Refresher
0.5-1 Credit Class 0.5-1 Lab 0
Refresher of the principles and skills necessary for defensive driving, particularly emergency vehicles operating under emergency, high stress conditions. Prerequisite: EM 102.

EM 150
EMT Paramedic Refresher
2 Credits Class 2 Lab 2
Covers all DOT modules with emphasis on practical skills.

EM 160
EMT Self Defense Tactics
2 Credits Class 1 Lab 4
Designed for the Emergency Medical Technician emphasizing a combination of techniques derived from Aikido based defensive tactics, close quarters personal control and pressure point control techniques. Prerequisite: EM 100.

EM 200
Physical Assessment and Emergency Room Techniques
3 Credits Class 3 Lab 0
Advanced paramedic diagnostic and management skills. Data collection and physical assessment techniques and development of organizational and management styles. Prerequisites: EM 112, EM 115, EM 120, EM 121, EM 125, EM 202 and first year technical courses.

EM 201
Paramedic Supervision Practicum
3 Credits Class 1 Lab 6
Provides an understanding of the EMS environment and responsibilities. Task performance and coping with problems related to an EMS service including leadership attitude, morale, motivation and communication. Prerequisites: EM 112, EM 115, EM 120, EM 121, EM 125, EM 202 and first year technical courses.

EM 202
Advanced Cardiac Life Support (ACLS)
1 Credit Class 1 Lab 1
Designed to meet the needs of practicing coronary care nurses, paramedics or doctors who wish to advance or assess their skills in cardiac life support. Taught by American Heart Association instructors and approved by the Central Ohio Heart Chapter. Prerequisite: Instructor permission.

EM 203
Emergency Rescue Operations
4 Credits Class 3 Lab 3
Emergency rescue operations including the heavy rescue unit. Includes the use of special extrication tools and study and practice of rescue operations on water, highways and industrial locations.

EM 203A
Preparation for Emergency Rescue Operations
0.5-1 Credit Class 0.5-1 Lab 0
Introduction to emergency rescue operations with suggested procedures and techniques used in emergency situations. Includes planning for emergency operations, patient care and handling techniques and structure search and rescue.

EM 203B
Technical Rope Rescue
0.5 Credit Class 0 Lab 1.5
A step-by-step course, creating in effect a series of building blocks in high angle techniques, where the most critical skills, such as knowledge of rope and equipment are taught initially, followed by skills such as belaying and rappelling, until they are put together for team rescue skills.

EM 203C
Special Rescue Operations
1 Credit Class 1 Lab 1
Theory and practical applications of special rescue techniques. Students are active participants in organized rescues such as confined space, elevator rescue, trench rescue and search methods.

EM 203D
Auto/Farm/Industry Extrication
0.5 Credit Class 0.5 Lab 1
Designed to familiarize fire department and EMS personnel with farm accidents they may encounter. The course will include machinery upset, rollover, and victim extrication.

EM 204
Introduction to Hazardous Materials
1 Credit Class 1 Lab 0
Training and emergency response information for dealing safely and effectively with chemical spills, leaks, derailments, or transportation emergencies. Includes assessment of destructive potentials.

EM 204A
Hazardous Materials-First Responder Awareness
0.5 Credits Class 0.5 Lab 0
Designed to prepare individuals who arrive first on the scene of a hazardous materials incident. Defines hazardous materials and their associated risks; provides explanation of roles and responsibilities; implementing behaviors before, during, and after an incident; identifying local, state, and federal resources appropriate to emergency and non-emergency situations; description of basic concepts and techniques of scene management and scene setup, to include the proper use of personal protective equipment and decontamination. This course meets or exceeds the requirements of NFPA 472 for First Responder-Awareness Level, with the exception of local jurisdiction specific objectives.

EM 204B
Hazardous Materials-EMS Responder
0.5 Credit Class 0.5 Lab 0
Designed for those BLS and ALS personnel who respond to incidents that may involve hazardous materials. Meets the proposed NFPA 473 standard for EMS Responders to Hazardous Materials Incidents. Prerequisites: EM 204A or equivalent, EMT-A certification.

EM 213
Public Administration, Relations and Education
4 Credits Class 3 Lab 3
Provides the emergency medical service and fire command officer with a better understanding of fire and EMS safety problems and accepted administrative methods. Management problems are approached from the point of view of the fire or EMS chief, fire command officer and the chief administrator.

EM 214
Paramedic Externship I
2 Credits Class 0 Lab 8
Directed practice consisting of practical paramedic clinical experiences in hospitals, clinics and physicians' offices. Emphasizes physical assessment and emergency care procedures. Prerequisites: EM 112, EM 115, EM 120, EM 121, EM 125, EM 202 and first year technical courses.

EM 215
Paramedic Externship II
2 Credits Class 0 Lab 8
Directed practice consisting of practical paramedic clinical experiences in hospitals, clinics and physicians' offices. Emphasizes physical assessment and emergency care procedures. Prerequisites: EM 112, EM 115, EM 120, EM 121, EM 125, EM 202, EM 214 and first year technical courses.

EM 217
Wilderness EMT
3 Credits Class 2 Lab 3
Special problems associated with prolonged patient care, severe environments, and limited equipment will addressed. This is the definitive medical training course for all rural EMSD providers and wilderness rescue team members. Includes emergency rescue simulations.

EM 221
In-Service Education Clinical Experience for EMT's
3 Credits Class 1 Lab 6
Experience in classroom and laboratory teaching and evaluation of EMT-Paramedic level skills. Emphasizes programmatic planning for in-service education. Includes an overview of teaching methods, learning styles, writing performance objectives, test construction and clinical performance evaluation techniques. Prerequisites: EM 112, EM 115, EM 120, EM 121, EM 125, EM 202 and first year technical courses.

EM 223
Managing the Lost Person Incident
3 Credits Class 3 Lab 1
This National Association for Search and Rescue, Managing the Search Function course was commissioned by the National Park Service. Includes an introduction to search manager job responsibilities, philosophy and concepts of effective search management, an example search mission, preplanning, search and rescue resources, planning data and searching data, first notice, investigation, interviewing, determining the search urgency, lost subject behavior, introduction to the theory of search probabilities, search strategy, establishing the probability of area, clue orientation, applying SAR resources, search tactics, the probability of detection, summary of search theory, call-out procedures, organization, base camp administration, briefing and debriefing, documentation, dealing with outside influences, rescue/recovery, suspending the mission, demobilization, post mission, SAR statistics, preventative SAR education and map problems/compass reading exercises.

EM 226
Vertical Rope Rescue
1.25 Credits Class 0.75 Lab 1.5
Examination of training exercises in rope rescue techniques. Covers rescue of persons injured and/or stranded on ledges, over cliffs, etc. Emphasizes teamwork, proper use, care and storage of equipment and safety procedures. Includes Z drags, high lines and tyrolean traverses for the raising and lowering of victims, equipment and the rescuer. Prerequisite: EM 123.

EM 227
Emergency Response to Hazardous Materials
4 Credits Class 3 Lab 3
Analysis of chemical reaction as it relates to fire. Hazards of radioactive materials, poisonous gases and LP gases. Methods of transportation of hazardous materials, DOT regulations and markings are included.

EM 227A
Incident Analysis
1 Credit Class 1 Lab 0
Developed by the National Fire Academy, designed for all emergency response personnel. Introduces a systematic method for analyzing and assessing the potential effect of hazardous materials involvement in fire and other emergencies. Topics include hazardous materials classifications; labeling, packaging, recognition, identification, standards, and regulations.

EM 227B
Pesticide Challenge
1 Credit Class 1 Lab 0
For fire, law enforcement, and emergency medical personnel to explore the hazards of 35,000 agricultural products. Participants will practice skills necessary when dealing with an agricultural chemical incident. Label recognition, signs and symptoms of chemical exposure and emergency medical procedure will be covered.

EM 227C
First Response Operations
1 Credit Class 1 Lab 1
Designed for fire departments and other public safety forces to meet or exceed the student accomplishment objectives in accordance with NFPA 472 for First Responder-Operations Level, with the exception of local jurisdiction specific objectives. Personal safety and self-defense, first responder roles in emergency response systems, and the diverse nature of hazardous materials incidents and related defensive measures. Topics include applying a systematic process (the GEDAPER process) for safety and appropriate response to hazardous materials incidents; utilizing safe and appropriate strategies and tactics within the realm of the first responder operations.

EM 227D
Incident Command System
1 Credit Class 1 Lab 0
Offers tools for students who are responsible for serving as an incident commander at hazardous materials incidents. Topics include direction and coordination of the incident from initial response to stabilization; operation within the scope of an integrated emergency management plan; operation with clear procedures for notification and utilization of non-local resources; direction of resources; management overview, technical review, and logistical support to private and government sector personnel; proper documentation; reporting requirements of federal, state, and local agencies and conducting of incident critiques. This course meets the requirements of NFPA 471 for Hazardous Materials Incident Commander, with the exception of local jurisdiction specific objectives.

EM 228
Hazardous Materials Tactics and Skills
4 Credits Class 3 Lab 3
Safe handling of fires and spills involving hazardous materials for emergency response personnel. Practical application of fire and spill tactics and skills.

EM 275
EMT Seminar
1 Credit Class 1 Lab 0
Discussion of experiences in the hospital and EMS station. Critical thinking applications and simulating run reviews are emphasized.

EM 285
Care of Trauma Patient
0.5-3 Credits Class 0.5-3 Lab 0
Utilizing scenarios, skymed personnel focus on skills that play a significant role in patient survival. Includes primary survey, secondary survey, airway maintenance, shock states and complications associated with traumatic injuries.

EM 290
Special Topics in Emergency Medical Technology
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

EM 291
Individual Study in Emergency Medical Technology
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

EM 292
Field Experience in Emergency Medical Technology
1-4 Credits Class 0 Lab 12-48
On-the-job training in an emergency medical facility through special arrangement with an instructor.

EM 293
Emergency Medical Directed Practice
1-8 Credits Class 0 Lab 5-40
Directed practice instruction in the performance of a particular function from an assigned instructor, and then observed and critiqued by the instructor in a repeat performance of that function.

EM 294
Emergency Medical Cooperative Work Experience
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

EM 296
Practicum in Emergency Medical Technology
1-6 Credits Class 0 Lab 7-42
The student is placed in a work environment for a minimum amount of time to gain experience before graduation.

EM 297
Emergency Medical Observation Hour
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

EM 298
EMT Internship
3-6 Credits Class 0 Lab 20-40
On the job training in the workplace of a cooperating agency. Coordinated by an instructor.

EM 299
EMT Internship Seminar
3 Credits Class 3 Lab 0
Discussion of internship experiences, objectives, and evaluation.

Engineering

EGR 102 PACE
Physics M
3 Credits Class 3 Lab 2
Introduction to physics for engineering technologies. Covers the study of forces, Newton's laws of force and motion; harmonic motion; work, energy and power; basic machines; properties of gases, liquids and solids. Prerequisite: MATH 201.

EGR 103 PACE
Physics HLS
3 Credits Class 3 Lab 2
Heat transfer, energy transformation, heat engines, air conditioning, wave motion and vibration, sound and hearing, light wave motion, mirrors and lenses, reflections, refraction, absorption and dispersion of light, diffraction and interference and optical instruments. Prerequisite: MATH 201.

EGR 106
Introduction to Electricity
4 Credits Class 3 Lab 3
Fundamentals of electricity and the function and operation of electrical test equipment. Includes multimeters, oscilloscopes, and AC and DC signal generators. The function of basic electrical components is studied and used in the analysis of AC and DC series and parallel circuits. Voltage, current, resistance and power are analyzed mathematically and through practical application in the laboratory. Prerequisite: MATH 202.

EGR 108
Manufacturing Process I
3 Credits Class 3 Lab 2
Introduction to industrial materials and their properties and how these properties relate to product design.

EGR 109
Manufacturing Process II
3 Credits Class 3 Lab 2
Non-ferrous materials, nonmetallic materials, material selection, casting and deformation processing.

EGR 110
Manufacturing Process III
3 Credits Class 2 Lab 4
Processes that reshape existing material in the solid state and assembly procedures.

EGR 115
Environmental and Safety Fundamentals
3 Credits Class 3 Lab 0
Standard safety practices for use in the laboratory and industry. Requirements for the safe handling, storage and proper disposal procedures for chemical and hazardous materials. The legal aspects of OSHA and EPA requirements as they affect employees and employers.

EGR 116
Industrial Electricity
1-4 Credits Class 1-4 Lab 0-3
Introduction to electrical concepts as they apply to industrial elasticity. Emphasis on safety of both personnel and equipment. Includes discussion and application of the National Electric Code (NEC) as it applies in an industrial setting.

EGR 117
Computation Applications for Industry
1-3 Credits Class 1-3 Lab 0-1
Principles and methods of applying mathematics to the needs of modern factories and machines. Includes the use of scientific calculators in problem solving from basic arithmetic through basic algebra.

EGR 118
Synchronous Manufacturing
1-3 Credits Class 1-3 Lab 4
Strategies for developing manufacturing processes including identifying and reducing waste, improving product flow and the actual production of products, packaging and shipping. Involves observing different types of workplace organizations with different methods of quality assurance.

EGR 119
Access to Technology
3 Credits Class 2 Lab 4
Associate of Applied Science degree programs in the engineering and sciences technologies are investigated and studied to allow a student to make informed career decisions. Technologies investigated include automotive service management, broadcast engineering and production, ceramic engineering, compressor, computer science, drafting and design, electronic and materials.

EGR 201
Occupational Safety
3 Credits Class 3 Lab 0
Ohio safety codes and accepted safety practices and procedures pertaining to employees and employers. Workman's compensation, safety design, inspection, personal protective equipment, safety analysis and responsibility.

EGR 209
Digital Logic I
4 Credits Class 3 Lab 3
Fundamentals of digital logic including classification of analog and digital signals, fundamental logic gates, Boolean algebra, combinational logic, latches and flip-flops. The student will learn and apply the principles of digital logic by building and troubleshooting digital circuits in the laboratory.

EGR 210
Control Systems I
3 Credits Class 3 Lab 2
Basic theory and instrument function, measurement and response limitations, calibration of instruments and an analysis of industrial process instrumentation and operations. Pneumatic, hydraulic, electrical, electronic, electromechanical and other combinations of instruments are used. Prerequisite: MATH 202.

EGR 212
Industrial Supervision
3 Credits Class 3 Lab 0
Working relationships among personnel involved in production areas of manufacturing including qualifications and characteristics expected for various positions.

EGR 213
Control Systems II
3 Credits Class 3 Lab 2
Digital and analog controllers, off/on, proportional, proportional-reset and proportional-reset-rate. Feedback control systems are studied along with methods for finding the actual value of parameter to be set on the controller for best control. Computer operations are studied (MS-DOS and BASIC) as they apply to supervisory and direct digital control. Prerequisite: MATH 203.

EGR 214
Introduction to Robotics
3 Credits Class 3 Lab 2
Introduction to automated manufacturing with emphasis on robotics. Topics include robotic hands, sensing devices, brains, thought patterns and internal working mechanisms.

EGR 220
Work Measurements
1-3 Credits Class 1-3 Lab 4
Methods for preparing and conducting motion and time analysis which emphasize cost improvement through scientific methodology. Classroom and laboratory experience aid in developing skills for measuring performance, workplace layout, job analysis and allowances for standard times.

EGR 221
Industrial Engineering Cost Analysis
1-3 Credits Class 1-3 Lab 2
Economic analysis and control as applied to manufacturing. Topics include overhead, estimating, break-even, cost-volume, profit relationships and cash flow.

EGR 222
Plant Layout and Materials Handling
1-3 Credits Class 1-3 Lab 4
Facility layout, path handling systems, equipment arrangement and workplace design for production efficiency. Experience in both conventional and computer drafting for solving manufacturing facilities layout problems.

EGR 223
Production Planning and Inventory Management
1-4 Credits Class 1-3 Lab 3
Production planning and inventory management as applied to small and medium businesses. Methods of forecasting, production planning, financial analysis, order quantities and scheduling are included. Inventory management concepts are applied to production considerations.

EGR 224
Tool and Die Design
3 Credits Class 2 Lab 4
Introduction to the design and use of jigs and fixtures. Includes determining the type of jig and/or fixture used in specific cases and what factors should be considered in the application of the tool.

EGR 225
Engineering Industrial Projects
2 Credits Class 2 Lab 2
Involves the student with specific problems submitted by industrial companies. These problems are defined and solution procedures are determined by the student in collaboration with the faculty and the industrial technical personnel.

EGR 226
Industrial Environmental Issues
3 Credits Class 3 Lab 0
Federal compliance requirements resulting from the Clean Air Act, Water Quality Act and Hazardous Material Transportation Act are examined for specific metal, ceramic and plastic industries. Proper procedures to work with hazardous materials in manufacturing operations are identified. New regulations pertaining to CFC production, nuclear waste disposal, and nonionizing radiation limits in the workplace are also examined.
Prerequisites: CHEM 100 and EGR 115.

EGR 227
Statistical Applications in Industry
3 Credits Class 3 Lab 2
Statistical methods used in industry to improve product quality and manufacturing yields. Industrial processes are analyzed through design of experiments, small sampling techniques, correlation theory and statistical decision theory.
Prerequisites: CER 203 and MATH 203.

EGR 290
Special Topics in Engineering
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

EGR 291
Individual Study in Engineering
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

English Support

ES 051
English Support Conversation: Fundamentals
3 Credits Class 3 Lab 2
Introductory course for the student for whom English is a second language. Emphasizes survival oral/aural communication skills through the study and practice of common and emergency vocabulary, conversation, and pronunciation of spoken American English.

ES 052
English Support Reading Fundamentals
5 Credits Class 5 Lab 0
Introductory course for the student for whom English is a second language. Strongly emphasizes survival recognition and understanding of textual material by study and practice of common and emergency vocabulary through the use of selected reading materials.

ES 053
English Support Writing and Grammar: Fundamentals
5 Credits Class 5 Lab 0
Introductory course for the student for whom English is a second language. Strongly emphasizes basic writing skills through the use and practice of basic English grammatical structures.

ES 054
English Support Integrated Skills: Fundamentals
3 Credits Class 2 Lab 3
Introductory course for the student for whom English is a second language. Integrates and extends conversation, reading, and writing skills through supervised practice distributed among the Transitions Center, the Media Center, and other available media sources.

ES 061
English Support Conversation: Beginning I
1-3 Credits Class 1-3 Lab 1-2
Beginning course for the student for whom English is a second language. Strongly emphasizes the strengthening of oral/aural conversation abilities and listening comprehension through the study and practice of common vocabulary, conversational forms and the pronunciation of spoken American English.

ES 062
English Support Reading: Beginning I
5 Credits Class 5 Lab 0
Beginning course for the student for whom English is a second language. Strongly emphasizes the development and strengthening of reading comprehension through the use of selected basic reading materials.

ES 063
English Support Writing and Grammar: Beginning I
8 Credits Class 8 Lab 0
Beginning course for the student for whom English is a second a language. Strongly emphasizes the development and strengthening of writing skills through the use and practice of basic English grammatical structures derived from selected texts.

ES 064
English Support Integrated Skills: Beginning I
3 Credits Class 2 Lab 3
Beginning course for the student for whom English is a second language. Integrates and extends conversation, reading and writing skills through supervised practice distributed among the Transitions Center, the Media Center and other available media sources.

ES 071
English Support Conversation: Beginning II
1-3 Credits Class 1-3 Lab 1-2
Continuing course for the student whom English is a second language. Strongly emphasizes the strengthening of oral/aural conversation abilities and listening comprehension through the study and practice of common vocabulary, conversational forms and the pronunciation of spoken American English.

ES 072
English Support Reading: Beginning II
1-5 Credits Class 1-5 Lab 0
Continuing beginning course for the student for whom English is a second language. Strongly emphasizes the development and strengthening of reading comprehension through the use of selected basic reading materials.

ES 073
English Support Writing and Grammar: Beginning II
1-8 Credits Class 1-8 Lab 0
Continuing beginning course for the student for whom English is a second language. Strongly emphasizes the development and strengthening of writing skills through the use and practice of basic English grammatical structures derived from selected texts.

ES 074
English Support Integrated Skills: Beginning II
1-3 Credits Class 1-3 Lab 0
Continuing beginning course for the student for whom English is a second language. Integrates and extends conversation, reading and writing skills through supervised practice distributed among the Transitions Center, the Media Center and other available media sources.

ES 081
English Support Conversation: Intermediate I
1-5 Credits Class 1-5 Lab 0
Developmental course on the beginning intermediate level for the student for whom English is a second language. Strongly emphasizes the strengthening of oral/aural conversational abilities and listening comprehension through the study and practice of common vocabulary, conversational forms, and the pronunciation of spoken American English.

ES 082
English Support Reading: Intermediate I
1-5 Credits Class 1-5 Lab 0
Developmental course on the beginning intermediate level for the student for whom English is a second language. Strongly emphasizes the strengthening of reading comprehension through the use of selected basic reading text.

ES 083
English Support Writing and Grammar: Intermediate I
1-8 Credits Class 1-8 Lab 0
Developmental course on the beginning intermediate level for the student for whom English is a second language. Strongly emphasizes the development and strengthening of writing skills through the use and practice of basic English grammatical structures derived from selected texts.

ES 084
English Support Integrated Skills: Intermediate I
1-5 Credits Class 1-5 Lab 0
Developmental course on the beginning intermediate level for the student for whom English is a second language. Integrates and extends conversation, reading, and writing skills through supervised practice distributed among the Transition Center, the Media Center, and other available media sources.

ES 091
English Support Conversation: Intermediate II
1-5 Credits Class 1-5 Lab 0
Continuing developmental course on the upper intermediate level for the student for whom English is a second language. Strongly emphasizes the strengthening of oral/aural conversational abilities and listening comprehension through the study and practice of common vocabulary, conversational forms and the pronunciation of spoken American English. Includes an increasing focus on academic types of listening - speaking tasks and note-taking.

ES 092
English Support Reading: Intermediate II
1-5 Credits Class 1-5 Lab 0
Continuing developmental course on the upper intermediate level for the student for whom English is a second language. Strongly emphasizes the strengthening of reading comprehension and critical analysis through the use of selected reading texts. Includes an increasing focus on academic types of reading.

ES 093
English Support Writing and Grammar: Intermediate II
1-8 Credits Class 1-8 Lab 0
Continuing developmental course on the upper intermediate level for the student for whom English is a second language. Strongly emphasizes the expansion and strengthening of writing and grammar skills through the use and practice of English grammatical structures using selected texts. Includes an increasing focus on academic types of writing as well as emphasis on preparation for the Communications sequence.

ES 094
English Support Integrated Skills: Intermediate II
1-5 Credits Class 1-5 Lab 0
Continuing developmental course on the upper intermediate level for the student for whom English is a second language. Integrates and extends conversation, reading and writing skills through supervised practice distributed among the Transitions Center, the Media Center and other available media sources.

ES 098
English Support: Intensive Academic English I
1-6 Credits Class 1-6 Lab 3
This is a high intermediate/advanced course for the student for whom English is a second language. The emphasis is on preparing the high-level English Support student for the challenges of public speaking, composition and reading as required by the Communications sequence.

ES 099
Intensive Academic English II
1-6 Credits Class 1-6 Lab 0
This is a high intermediate - advanced course for the student for whom English is a second language. The emphasis is on preparing the high-level English Support student for the challenges of public speaking, composition and reading as required by the Communications sequence.

ES 290
Special Topics in English Support
1-4 Credits Class 1-4 Lab 0
This is a fundamentals to high-intermediate course for the student for whom English is a second language. The emphasis is on providing continuing support in English Support classes for the student with special topic needs.

Financial Management

FMGT 100
Principles of Bank Operations
3 Credits Class 3 Lab 0
Aspects of banking from fundamentals of negotiable instruments to contemporary issues and developments within the industry.

FMGT 101
Introduction to Trust Functions
1 Credit Class 1 Lab 0
Overview of trust department including how it fits into the overall bank operations, services it provides and how those services are delivered.

FMGT 102
Money and Banking
3 Credits Class 3 Lab 0
Money, banking and monetary theory. Emphasizes problems such as economic stabilization, types of spending, the role of gold, limitation of central bank control, government fiscal policy, balance of payments and foreign exchange.

FMGT 103
Introduction to Calculators and Adding Machines
1 Credit Class 1 Lab 1
Use of electronic calculators and adding machines.

FMGT 104
Marketing for Bankers
3 Credits Class 3 Lab 0
Examines what motivates customers to purchase financial services and teaches bankers how to develop a successful marketing plan.

FMGT 105
Product Knowledge: The Key to Successful Selling
1 Credit Class 1 Lab 0
Guide to the products and services offered by banks. Consumer products, corporate products and trust products.

FMGT 106
Installment Credit
3 Credits Class 3 Lab 0
Techniques of installment lending. Emphasizes establishing credit, obtaining and checking information, servicing the loan and collecting amounts due. Topics include inventory financing, special loan programs, business development and advertising and the public relations aspect of installment lending.

FMGT 107
Financial Services
2 Credits Class 2 Lab 0
Essential for the banker planning to profit from regulation of the financial services industry. Includes bank structure and profitability, real estate, insurance, mutual funds and securities markets.

FMGT 108
Bank Cards
3 Credits Class 3 Lab 0
Overview of the bank card industry. The role of the bank card in the economy and the basic operational problems involved in the successful management of a bank card plan.

FMGT 110
Credit Administration
3 Credits Class 3 Lab 0
Directed at the executive level. Develops methods of credit investigation and analysis, credit techniques, specific credit problems and regular as well as unusual types of loans.

FMGT 112
Negotiable Instruments and Payment Mechanisms
3 Credits Class 3 Lab 0
Legal implications of normal activities and transactions in bank operations. Introduction to the Uniform Commercial Code, the legal framework of the United States Commercial Code and the legal framework of federal and state statutes.

FMGT 114
Selling Bank Services
3 Credits Class 3 Lab 0
Development of human relations skills that encourage smooth, clear and personal communication. Covers basic steps in selling, bank products, product benefits that appeal to a customer and how to spot clues that can tell what a customer needs.

FMGT 120
Investing and Money Dynamics
3 Credits Class 3 Lab 0
Whether the objectives are retirement, funding a college education, tax reduction or financial independence, this course teaches how to build for the future based on personal financial goals and personal family circumstances. Includes financial tools such as insurance, mutual funds, common stock, bonds, annuities, savings accounts, trusts, and tax shelters.

FMGT 140
Principles of Finance
3 Credits Class 2 Lab 4
Financial operations of small, medium and large size businesses and investors. Prerequisite: ACC 100.

FMGT 200
Bank Control and Audit
3 Credits Class 3 Lab 0
Designed for the non-auditor, this course explains the auditing function in banks. The role, duties and responsibilities of the auditor, reasons for bank controls and evaluating those controls in one's own bank.

FMGT 201
Assets/Liability Management
1 Credit Class 1 Lab 0
Origins, necessity and operations of asset/liability management. Covers specific management techniques including the experience method, asset allocation method, liability management method and banker method.

FMGT 202
Federal Reserve System
3 Credits Class 3 Lab 0
Operations and policies of the Federal Reserve System during critical periods over the last sixty years. International monetary affairs, the changing role of gold, economic developments, goals which affect the stability of the American economy and Federal Reserve efforts to adapt and influence the changing economic environment.

FMGT 203
Financial Planning for Bankers
3 Credits Class 3 Lab 0
Perspectives, principles and practices of financial planning. Enables the student to be more sensitive to customers' financial planning goals and objectives. Develops an understanding of the comprehensive process that looks at a customer's total financial picture and recommends strategies to achieve the customer's objectives.

FMGT 204
Bank Investments for Funds Management
3 Credits Class 3 Lab 0
Concepts of bank financial structure and funds management through asset and liability techniques and investment strategies.

FMGT 205
Accounting I for Bankers
3 Credits Class 3 Lab 0
Current practices of accounting procedures. Includes coverage of the latest principles set by the Financial Accounting Standards Board.

FMGT 206
Home Mortgage Lending
3 Credits Class 3 Lab 0
Provides a clear understanding of the fundamentals of mortgage lending.

FMGT 208
Savings and Time Deposits in Banking
3 Credits Class 3 Lab 0
Historical development of savings institutions and basic economic functions of the savings process. Review of the economics of the savings by individuals or organizations and real savings that appear as capital formation. Types of financial savings are reviewed.

FMGT 210
Agricultural Finance
3 Credits Class 3 Lab 0
Understanding of the extending agriculture and agribusiness loans.

FMGT 212
Deposit Operations
3 Credits Class 3 Lab 0
Overview of the U.S. payment system, banking law and regulation and current industry practices. Examines bank deposit-taking activities, considers how banks manage deposited funds and explores the interbank EFT systems.

FMGT 214
Management of Commercial Bank Funds
3 Credits Class 3 Lab 0
Principles of funds management. Covers a broad range of bank situations and sizes and is designed to be useful to as many different bankers as possible.

FMGT 220
Law and Banking
3 Credits Class 3 Lab 0
Laws pertaining to secured transactions, letters of credit and the bank collection process.

FMGT 221
Law and Banking: Principles
3 Credits Class 3 Lab 0
Banker's guide to law and legal issues with special emphasis on the Uniform Commercial Code.

FMGT 222
Bank Management
3 Credits Class 3 Lab 0
Philosophy and practice of bank management. Provides new and experienced bankers with a working knowledge of bank management. Objectives, planning, structure, control and the interrelationship of various bank departments. Personnel management is not covered.

FMGT 225
Commercial Lending
3 Credits Class 3 Lab 0
Concepts and principles of loans to businesses and other commercial operations.

FMGT 290
Special Topics in Financial Management
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

FMGT 291
Individual Study in Financial Management
1-5 Credits Class 0 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

Fire Science

FS 100
Basic Fire Fighting
3 Credits Class 2 Lab 4
Provides first phase training in the fire fighting profession for the individual who will work under direct supervision. Use of tools and equipment, chemistry of fire, extinguishment and rescue techniques. Following successful completion of the course the student is eligible for fire fighting certification through the State Department of Education. This course meets National Fire Protection Association Inc. (NFPA-1001) standards.

FS 101
Fire Prevention Techniques
1-3 Credits Class 1-3 Lab 0-3
Applicable state and federal fire codes, proper inspection procedures in taking notes and drawings, checking manual and automotive fire protection equipment, observing process and storage hazards and making recommendations to improve fire safety. Include use of inspection tools, location and implementation of resource material and interaction with applicable enforcement agencies.

FS 103
Volunteer Fire Fighting
2 Credits Class 1 Lab 3
Provides first phase training in the fire fighting profession for the individual who will work under direct supervision. Use of tools and equipment, chemistry of fire, extinguishment and rescue techniques will be covered. Following successful completion of the course the student is eligible for fire fighting certification through the State Department of Education. This course meets National Fire Protection Association Inc. (NFPA-1001) standards.

FS 105
Orientation to Fire Services
2 Credits Class 2 Lab 1
Introduction to duties, responsibilities and concerns of the fire services. Topics include fire equipment and apparatus, communications, records and reports, insurance rating systems and the law as it relates to the fire department operations and the responsibilities of various fire service ranks. Fire fighter safety as well as the causes of death and injury are discussed.

FS 110
Advanced Fire Fighting I
5 Credits Class 3 Lab 7
Second level training in the fire fighting profession for the individual who will work under minimum direct supervision. Reviews basic skills learned in Basic Fire Fighting and introduces advanced skills in arson detection, investigation, hydrants, stand pipes, sprinkler systems and inspections. Meets National Fire Protection Association Inc. (NFPA-1001) standards. Prerequisite: FS 100.

FS 113
Hazardous Materials Incident Analysis
1-3 Credits Class 1-3 Lab 0
Case histories and hypothetical situations are utilized in training. Since decision making is a mental process, emergency response personnel must be trained to think situations through in an orderly manner, which requires training to accurately assess the situation, determine priorities and make decisions for action.

FS 115
Advanced Fire Fighting II
5 Credits Class 3 Lab 7
Completes the training in the fire fighting profession for the individual to work under minimum direct supervision. Reviews advanced skills in arson detection, investigation, hydrants, stand pipes, sprinkler systems and inspections. Meets National Fire Protection Association, Inc. (NFPA-1001) standards. Following successful completion of the course the student is eligible for fire fighter certification through the State Department of Education (Fire Fighter II). Prerequisites: FS 100 and FS 110.

FS 116
Fire Prevention and Investigation Techniques
3 Credits Class 2 Lab 3
Fundamentals necessary to conduct basic fire and life safety inspections and to recognize basic fire and life safety hazards associated with various occupancies. Meets selected objectives of NFPA Standard 1031, (Professional Qualifications Standard for Fire Inspector, Level 1). Does not replace the Public Safety Services Training Inspector 1. Includes an overview of the fire fighter's responsibilities for determining cause of fire and fire scene procedures.

FS 122
Fire Investigation Techniques
0.5-3 Credits Class 0.5-3 Lab 3
Principles of fire investigations including recognition, preservation, collection and presentation of arson evidence. Arson laws, interrogation of witnesses, application of photography, preparation of reports, adjustment of insured losses and estimation of loss due to fire, smoke and water.

FS 128
Cold Water Near-Drowning
1 Credit Class 1 Lab 0
Introduction to cold water, medical aspects of hypothermia, hazards of getting to the victim, the rescue trailer and equipment. Workshops in cold water diving equipment and training, water safety for the surface rescuer, interviewing witnesses and victim care and handling. Approved by the Ohio Department of Natural Resources Division of Watercraft.

FS 131
Ice Rescue
1 Credit Class 1 Lab 0
Ohio Department of Natural Resources Division of Watercraft approved course teaches techniques used in ice rescue. Includes judging ice strengths, how ice is formed, identifying types of ice and the multiple factors which affect ice strength, the study of rescue techniques and hands-on training in the use of recommended equipment.

FS 150
Fire Supression Using Foam
1 Credit Class 1 Lab 1
Makeup of foam and the proper application on various types of hazardous materials incidents. Enables the student to go from "soap bubbles" using nozzle aspirated foam with an introduction into compressed air foam (CAFS). Various methods of mixing concentrate and water to make foam solution will be discussed. Prerequisite: FS 100.

FS 155
Confined Space Rescue
2 Credits Class 1 Lab 3
Demonstration and practical performance allows the student to set up and conduct a confined space entry and rescue operation. Prerequisites: Student must be in good physical condition; must have a valid Ohio 36-hour Volunteer or 200-hours Basic Fire Fighter certificate, or its equivalent; must be trained through the Hazardous Materials Operations Level; and must have completed a Basic Rope Rescue course. Documented proof of the above must accompany registration form. Prerequisites: EM 203, EM 227 and FS 100.

FS 230
Fire Safety Inspector
4 Credits Class 4 Lab 0
Based on the standards of the National Fire Protection Association's Standard 1031: Professional Qualifications for Fire Inspector I, 1989 Edition. Provides a working knowledge of the principles of fire safety inspection. Following successful completion of the course the student is eligible for certification through the State Department of Education.

FS 235
Underground Storage Tank Inspection
4 Credits Class 4 Lab 0
State regulations, nationally recognized standards and inspection skills. Students who successfully complete the course earn certification in Underground Storage Tank Inspection.

FS 240
Industrial Fire Protection
2 Credits Class 2 Lab 1
Organization and operation of an in-plant fire company. Purchase of supplies and equipment, special fire fighting tactics, training of personnel, and relationship to the municipal fire department.

FS 250
Fire Apparatus
1-4 Credits Class 1-4 Lab 0
Types of fire equipment used in fighting residential and commercial fires.

FS 250A
Ladder Operations
0.25-1 Credit Class 0.25-1 Lab 0
Includes safe ladder set-up, rescue operations, water tower operations.

FS 250B
Pumps
0.25-1 Credit Class 0.25-1 Lab 0
Provides the pump operator with an overview of the operation of the fire pump. Topics include pump principals and plumbing, ratings, problem areas and practical operations. Prerequisite: The student must be certified as a Ohio Fire Fighter and meet the standards set forth in The Ohio Administrative Code, Chapter 4121:1-21.

FS 250C
Rural Water Movement
0.25-1 Credit Class 0.25-1 Lab 0
Designed for the firefighter who wishes to further knowledge of rural water movement methods and techniques including equipment for rural firefighting operations. Topics include tanker shuttles, relays, and pumping operations.

FS 250D
Dry Hydrants
0.25-1 Credit Class 0.25-1 Lab 0
Designed for the firefighter who wishes to further knowledge of dry hydrants.

FS 251
Fire Extinguishment
1-5 Credits Class 1-5 Lab 0
Participation in a live training fire using NFPA Standard 1403. The student learns interior firefighting tactics, nozzle techniques and other fireground operations that may be used on a working fire. Note: Full turnout gear and SCBA with spare cylinder required. Prerequisite: The student must be certified as an Ohio Fire Fighter and meet the standards set forth in The Ohio Administrative Code, Chapter 4121:1-21.

FS 251A
Residential Fires
0.25-1 Credit Class 0.25-1 Lab 0
Fire prevention and fire extinguishing in the residential environment. Emphasizes appropriate equipment and procedures in extinguishing the residential fire.

FS 251B
Vehicular Fires
0.25-1 Credit Class 0.25-1 Lab 0
Designed for the firefighter who wishes to further knowledge of vehicle fires. The student will learn to recognize the hidden dangers associated with vehicle fires and how to properly protect themselves in the danger zone. Special notice: Full turnout gear required. Prerequisite: The student must be Certified as an Ohio Fire Fighter and meet the standards set forth in The Ohio Administrative Code, Chapter 4121:1-21.

FS 251C
Oil and Gas Well Fires
0.25-1 Credit Class 0.25-1 Lab 0
Attacking oil tank fires and special needs in fighting oil and gas well fires. Prerequisite: The student must be certified as an Ohio Fire Fighter and meet the standards set forth in The Ohio Administrative Code, Chapter 4121:1-21.

FS 252
Arson Investigation
0.5-1 Credit Class 0.5-1 Lab 0
Designed for fire fighters involved in arson investigation involving a homicide. Students will be introduced to the importance of evidence and their role as fire fighters in the collection and preservation of evidence.

FS 290
Special Topics in Fire/EMT Technology
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

FS 291
Individual Study in Fire/EMT Technology
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

FS 292
Field Experience in Fire Science
1-4 Credits Class 0 Lab 12-48
On-the-job training in a fire service facility through special arrangement with an instructor.

FS 294
Fire Science Cooperative Work Experience
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

FS 295
Fire Science Practicum Seminar
1-3 Credits Class 1-3 Lab 0
Discussion of job-related concerns and assistance with practicum.

FS 296
Fire Science Practicum
1-6 Credits Class 0 Lab 7-42
The student is placed in a work environment for a minimum amount of time to gain experience before graduation.

FS 297
Fire Science Observation Hour
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

FS 298
Fire Science Internship
3-6 Credits Class 0 Lab 20-40
On the job training in the workplace of a cooperating agencey. Coordinated by an instructor.

FS 299
Fire Science Intership Seminar
3 Credits Class 3 Lab 0
Discussion of internship experiences, objectives, and evaluation.

Forestry

FOR 110
Reforestation
3 Credits Class 2 Lab 3
Reclamation and reforestation of coal mined lands. State and federal reclamation laws, coal, geology and methods of mining. Reclamation practices and the establishment of grassland and woody vegetation. Reforestation modules involve methods of establishing trees and shrubs on vacant land. Nursery practices, planning, site preparation, planting concepts and assessment.

FOR 111
Forest Dendrology
3 Credits Class 1 Lab 6
Indigenous species of the eastern hardwood region as well as other regions. Identification through tree and product with specific soil, site and silvical characteristics being discussed.

FOR 120
Photo Interpretation
3 Credits Class 1 Lab 6
Tools used in the planning and management of natural resources. Prerequisite: MATH 201.

FOR 123
Forest Measurements
4 Credits Class 2 Lab 6
Tools used daily in the planning and management of natural resources. Prerequisite: MATH 201.

FOR 124
Forest Ecology
3 Credits Class 2 Lab 3
Forest community relationships, synecology and audiology which can be applied to the technical aspects of forestry such as silvi-culture, mensuration, forest management and timber harvesting.

FOR 131
Forest Entomology and Pathology
4 Credits Class 3 Lab 3
Insects, diseases and their economic impact on forest, ornamental and street trees. Stresses identification and potential control.

FOR 134
Agroforestry
2 Credits Class 1 Lab 3
Classification of agroforestry systems and its ecological and social role in societies around the world. Focuses on understanding ancient systems and new systems being developed for profitability and sustainable production of crops and wood products from land.

FOR 135
Forestry Nursery Operations
2 Credits Class 1 Lab 3
Establishment and operation of tree nurseries. Includes the collection, care and propagation of seed; preparation, care and planting of seeds and seedlings in a seed bed; and the water and nutritional needs of seedlings.

FOR 210
Forest Mensuration
4 Credits Class 2 Lab 6
Techniques and equipment used in determining quality, quantity, value and stocking of hardwood timber. Prerequisites: FOR 120, FOR 123 and COMM 122.

FOR 211
Timber Harvesting
3 Credits Class 1 Lab 6
Aspects of conventional hardwood logging operations. Safety, work procedures, care and maintenance of equipment and harvesting techniques and skills.

FOR 220
Applied Silviculture
4 Credits Class 2 Lab 6
Cultural techniques applied to growing, harvesting and regenerating forest crops in North America. Prerequisites: FOR 111, FOR 120, FOR 123, FOR 124 and COMM 122.

FOR 222
Introduction to Forestry
3 Credits Class 2 Lab 3
Introduction to the field of forestry, starting with the role of the forest when North America was discovered up to and including forestry as it is practiced today.

FOR 230
Forest Management
4 Credits Class 2 Lab 6
Management of upland central hardwoods, forest regulation and site species relationships as applied to the operation of a forest property for the production of timber and associated products and as it relates to public needs. Prerequisites: FOR 210, FOR 220 and COMM 122.

FOR 231
Forest Products Utilization
3 Credits Class 1 Lab 6
Utilization of products and services of the central hardwood region. Traditional and noninvolved flow of goods and services from the forest to final product. Emphasizes the conversion of hardwood sawlogs and pulpwood into finished goods while minimizing waste.

FOR 232
Lumber Grading and Marketing
4 Credits Class 2 Lab 6
Rules of the National Hardwood Lumber Association (NHLA). Topics include lumber tally and handling techniques, wood identification and upgrading of lumber. Not intended for training of lumber inspectors.

FOR 290
Special Topics in Forestry
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

FOR 291
Individual Study in Forestry
1-5 Credits Class 0 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

FOR 292
Field Experience in Forestry
1-3 Credits Class 0 Lab 12-36
On-the-job training in a forestry facility through special arrangement with an instructor.

FOR 294
Cooperative Work Experience in Forestry
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

FOR 295
Forestry Practicum Seminar
1-3 Credits Class 1-3 Lab 0
Discussion of job-related concerns and assistance with practicum.

FOR 296
Forestry Practicum
1-6 Credits Class 0 Lab 7-42
The student is placed in a work environment for a minimum amount of time to gain experience before graduation.

FOR 297
Forestry Observation Hour
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

General

GEN 115
Career Strategies
0.5-3 Credits Class 0.5-3 Lab 0
Increases self-knowledge, interpersonal strengths and occupational awareness and synthesize career planning components into an effective career strategy for personal fulfillment.

General Studies

GS 100
Orientation to College Life
0.25-2 Credits Class 0.25-2 Lab 0
College procedures, systems and resources available to the student. Methods for accessing, utilizing and solving problems with these options are explored.

GS 101
Hocking College Experience
0.25-1 Credit Class 0.25-1 Lab 0
Orientation to college life at Hocking College and an overview of the services of the Student Affairs Office.

GS 102
Obtaining and Maintaining Employment
1-3 Credits Class 1-3 Lab 0
Defines and identifies suitable employment positions. Includes resume development, directing complaints and concerns in the workplace, conflict resolution and how to get along with co-workers, supervisors and managers. Customer relations concepts are also addressed.

GS 104
Time Management
1 Credit Class 1 Lab 0
Planning and management of time in relation to organizational and individual goal setting, delegation, effective business conferences and decision making. Basic steps toward more effective planning for time management.

GS 105
Mid-Career Planning
0.5-1 Credit Class .5-1 Lab 0
Personal strategies are developed to support mid-career changes, occupational advancement, job promotion, life-long learning and life transitions. Use of career planning tools including assessment of academic skills, personality style and career path.

GS 106
Dynamics of Group Living
2 Credits Class 2 Lab 1
Student development theory and the application of communication techniques. Includes crisis identification, campus and community resources and community development issues.

GS 107
Mediation Dispute Resolution
1 Credit Class 1 Lab 0
Theoretical and practical understanding of the art of mediation. The nature of everyday conflict will be explored as well as alternative forms of dispute resolution. The student will learn techniques used by the mediator and acquire hands-on experience in conflict management during lab hours at Hocking College Mediation Services

GS 108
Caregiver
1 Credit Class 1 Lab 0
Overview of the caregiving process for professionals and family members. Addresses skills of the caregiver, coping strategies, relationships, stages of caregiving, and effects of caregiving on the caregiver.

GS 109
Developing Assertive Behavior
1 Credit Class 1 Lab 0
Recognizing and utilizing behavior and communication styles to control difficult situations and increase successful interactions.

GS 110
Applied Concepts of Employment/Tutors
0.5-1 Credit Class 0.5-1 Lab 0
Overview of and training for positions within the on-campus employment system. Aspects of employment related to professionalism, confidentiality, personal commitment to the job and performance evaluations. Applicable to any work situation.

GS 112
Employment Skills Seminar
1 Credit Class 1 Lab 0
General preparation skills for successful job entry. Topics include customer service, ethics, confidentiality and OSHA training. Procedures and performance expectations for specific jobs are included.

GS 114
College Student Issues
2 Credits Class 2 Lab 0
Acquaints resident assistants with issues relevant to college students as well as provide training and guidance on coping with various situations. Topics range from theoretical understanding of the dynamics of human relations to practical applications of emergency techniques.

GS 115
Overview of Brain Dominance
1 Credit Class 1 Lab 0
Introduction to brain dominance theory. Historical overview of brain dominance exploration by psychologists, educators and human resource development personnel. Includes taking the Herrmann Brain Dominance instrument and a personal interpretation of one's profile.

GS 116
Building Self-Esteem
1 Credit Class 1 Lab 0
Strategies for increasing self-esteem. Self-esteem is linked to success in college, on the job and in personal relationships. Students will examine the factors that create positive and negative feelings of self and learn practical ways to change their own negative perceptions.

GS 117
World Issues Forum
1 Credit Class 1 Lab 0
World issues that address cultural awareness, politics and policies and diversity as they relate to current events.

GS 120
Orientation to American Life
3 Credits Class 3 Lab 0
Specifically designed to meet the needs of new international students. Familiarization with college and community services, aspects of day-to-day American living and national and community activities and customs.

GS 130
PASS (Personal Academic Success Strategies)
3 Credits Class 3 Lab 0
Fine tuning skills needed to succeed in college course work. Concepts and techniques discussed in this course come from hundreds of students from various backgrounds and geographic areas. Effective methods for becoming a master student are reviewed along with topics such as time management, note-taking, test anxiety, creativity, relationships, personal learning styles, learning resources and career development.

GS 135
Degree Development Seminar
1 Credit Class 1 Lab 0
The student, with the assistance of the AIS/ATS instructor, will gather information, explore career options available to through the AIS, develop a curriculum design that best meets needs and write a formal proposal.

GS 140
Caregiver Options
1 Credit Class 1 Lab 0
Provides caregivers with needed skills and resources required to provide positive relationships and experiences for all persons involved. Focuses on issues related to the variety of options available to provide needed care, including independent living, home care and assisted care.

GS 250
Improving Test Performance
1 Credit Class 1 Lab 0
Specifically designed to meet the needs of adult students. Emphasizes sharing of academic concerns and effective study techniques. Topics include time management, test anxiety, studying for exams, strategies for taking exams, improving reading comprehension, reading a textbook effectively, taking notes, improving memory and effective listening.

GS 251
Prior Learning Documentation
1 Credit Class 1 Lab 0
Students analyze, document and present learning acquired prior to enrolling, in a format appropriate for receiving Credit for Learning from Experience and/or Credit by Advanced Standing.

GS 261
Professional Enhancement for Managers
0.5-3 Credits Class 0.5-3 Lab 0
Issues that enhance managers' professional roles within and beyond their organization of employment. Includes community service and volunteerism, lifelong learning and professional self-development, development of communication techniques for leaders, mentoring and serving on boards.

GS 261A
Professional Enhancement for Managers: Overview
1 Credit Class 1 Lab 0
Issues that enhance managers' professional roles within and beyond their organization of employment. Includes community service and volunteerism, lifelong learning and professional self-development, communication techniques for leaders, mentoring, and serving on boards, committees and advisory councils.

GS 261B
Professional Enhancement for Managers: Applications
0.5-1 Credit Class 0.5-1 Lab 0
Techniques and applications for enhancing one's own professionalism including building skills related to community service and volunteerism, self-directed learning, communicating to the public, mentoring and contributing to public boards and forums.

GS 261C
Professional Enhancement for Managers: Project
1 Credit Class 1 Lab 1
Development of professional enhancement methods and techniques. Under instructor guidance, participants enhance their own professional skills by developing a project relevant to their own interests.

GS 290
Special Topics in General Studies
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

GS 291
Individual Study in General Studies
1-5 Credits Class 0 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

GS 292
Community Service Project
1-3 Credits Class 1-3 Lab 0-3
On-the-job training in a community service facility through special arrangement with an instructor.

GS 295
General Studies Seminar
1-4 Credits Class 1-4 Lab 0
Discussion of job-related concerns and assistance with practicum.

GS 298
General Studies Internship
3-6 Credits Class 0 Lab 20-40
On the job training in the workplace of a cooperating agency. Coordinated by an instructor.

GS 299
General Studies Internship Seminar
3 Credits Class 3 Lab 0
Discussion of internship experiences, objectives, and evaluation.

Geographics

GEO 100
Introduction to GIS
2 Credits Class 1 Lab 3
Skills needed to use traditional map information. Geographic Information Systems will be defined and its use in government and industry will be examined.

GEO 101
Intermediate GIS
3 Credits Class 2 Lab 3
Technical inner workings of GIS. Students will explore, examine and experience the rules and operations that govern data storage, data analysis and data display. Prerequisite: GEO 100 or instructor permission.

GEO 102
Introduction to GPS
3 Credits Class 2 Lab 3
Concepts of the Global Positioning System and its history, design and application. Students will have an opportunity to collect and evaluate positional data with GPS receivers.

GEO 130
Applied Coordinate Geometry
3 Credits Class 2 Lab 3
Mathematical concepts utilized in computations of location of points, determination of direction and distances and calculation of area based on coordinate systems. Prerequisites: MATH 201 and MATH 202.

GEO 200
Applications in GIS
3 Credits Class 1 Lab 6
Understanding of GIS applications on the Hocking College campus with real world data. Prerequisites: GEO 100 and GEO 101 or instructor permission.

GEO 201
Intermediate GIS Applications
3 Credits Class 1 Lab 6
Understanding GIS applications in real world work experiences with real world data. Students may be placed under the supervision of various local governmental agencies and/or private industry.

GEO 202
Advanced GIS Applications
3 Credits Class 1 Lab 6
Work experience where sophisticated map products and tabular data are expected products of GIS. Students may be placed under the supervision of various local governmental agencies and/or private industry.

GEO 203
GPS Data Acquisition
3 Credits Class 2 Lab 3
GIS quality and control survey quality GPS equipment and procedures to collect positional data for GIS database projects.

GEO 204
Remote Sensing
3 Credits Class 2 Lab 3
Remote sensing as a means of data acquisition for resource analysis and mapping. Includes a variety of remote sensors that sample wavelengths within the electromagnetic spectrum. Multistage sampling of natural resources will be discussed.

GEO 290
Special Topics in GIS
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic by participants in a group.

GEO 291
Individual Study in GIS
0.25-5 Credits Class 0.25-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

GEO 292
GIS Field Experience
1-4 Credits Class 0 Lab 12-48
On-the-job training in a geographic facility through special arrangement with an instructor.

GEO 293
GIS Directed Practice
1-8 Credits Class 0 Lab 5-40
Directed practice instruction in the performance of a particular function from an assigned instructor, and then observed and critiqued by the instructor in a repeat performance of that function.

GEO 294
GIS Coop Work Experience
1-5 Credits Class 0 Lab 10-50
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

GEO 295
GIS Seminar
1-3 Credits Class 1-3 Lab 0
Discussion of job-related concerns and assistance with practicum.

GEO 296
GIS Practicum
1-6 Credits Class 0 Lab 7-42
The student is placed in a work environment for a minimum amount of time to gain experience before graduation.

GEO 297
GIS Observation Hour
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

GEO 298
GIS Internship
3-6 Credits Class 0 Lab 20-40
On the job training in the workplace of a cooperating agency. Coordinated by an instructor.

GEO 299
GIS Internship Seminar
3 Credits Class 3 Lab 0
Discussion of internship experiences, objectives, and evaluation.

Government

GOVT 142
Interaction with Government and Politics
3 Credits Class 3 Lab 0
Function, structure, institution, process and product of the national government and impact of these on the citizens. Emphasizes discussion in the classroom to the personal world and conceptualizing how government and politics function in the real world.

GOVT 290
Special Topics in Government
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

GOVT 291
Individual Study in Government
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged with instructor permission on an individual basis.

Health Careers

HC 100
The Human Organism
3 Credits Class 3 Lab 2
Introductory human anatomy emphasizing understanding structural levels of the body from molecules to organ systems. The organization of each body system is covered. Terminology necessary for explanation of critical concepts including metabolism, homeostasis and inheritance.

HC 101
Medical Terminology I
3 Credits Class 3 Lab 0
Building a basic medical vocabulary with an emphasis on prefixes, suffixes and roots. Spelling and pronunciation rules are covered. Anatomical, physiological and pathological terminology pertaining to selected body systems are explored.

HC 102
Health Promotion Elective
1 Credit Class 1 Lab 0
Credit modules designed for health, public safety service and natural resources students. Students are exposed to knowledge, skills and attitudes related to health promotion and physical fitness for life. Prerequisite: See instructor.

HC 102A
Health Promotion Elective: Dance Aerobics
1 Credit Class 0 Lab 2
Enjoyable exercise program of dance and jogging steps choreographed to brisk music to strengthen and increase the efficiency of the cardiovascular system. The lightweight component utilizes small one to three pound hand weights in simple routines to tone the upper body. Dynabands, improve muscular strength and endurance of the lower body.

HC 102B
Health Promotion Elective: Healthy People
1 Credit Class 1 Lab 0
Promotes personal health and wellness. Stress management, nutrition, beginning a fitness program, environmental factors and behavior change strategies are included.

HC 102L
Health Promotion Elective: Lite Aerobics
1 Credit Class 0 Lab 2
Aerobic muscle strengthening and flexibility workout for those who prefer simple repetitive low impact movements. Emphasizes glide movements with one foot on the floor at all times. Routines are designed for those who have been inactive, are overweight, are at risk for cardiovascular disease, have a minor disability, or feel they lack good coordination.

HC 102M
Health Promotion Elective: Aqua Aerobics
1 Credit Class 0 Lab 2
Aerobic swimming program for improving cardiovascular health and assisting with weight control. Involves simple rhythmic movements in the water. Being able to swim is not a requirement.

HC 102Q
Health Promotion Elective: Physical Conditioning
1 Credit Class 0 Lab 2
Aerobic muscle strengthening and stretching circuit training program designed to improve cardiovascular fitness, muscle strength, endurance and flexibility. Each participant is pre- and post-tested in seven areas of fitness.

HC 102R
Health Promotion Elective: Golden Movers
1 Credit Class 0 Lab 2
Exercise for participants with varied fitness goals. Presentations on various aspects of healthy living including the six components of physical fitness, stress management, nutrition for weight maintenance and the benefits of self massage. Conveys the importance of enjoyment and variety in maintaining a lifelong fitness routine.

HC 102S
Health Promotion Elective: Step Aerobics
1 Credit Class 0 Lab 2
Comprehensive and balanced program that works every major muscle group in the lower body, while strengthening and conditioning the upper body. Involves stepping up and down on a platform while simultaneously performing upper body strength training movements to the accompaniment of music. Designed for the individual who wants a low impact, excellent cardiopulmonary workout without the frills of a traditional dance aerobic setting.

HC 102T
Health Promotion Elective: Tai Chi Chuan
1 Credit Class 0 Lab 2
Instruction in the ancient Chinese system of movement for health, meditation and self defense. Specific coverage of Beijing, a short form of Tai Chi Chuan which is practiced daily by millions. Includes the basics of partner play and a historical perspective on this form.

HC 102U
Health Promotion Elective: Therapeutic Touch
0.5-1 Credit Class 0.5-1 Lab 0
Use of self to assist another in the restorative process through the Krieger/Kunz method of Therapeutic Touch. The relationship between nursing theory, nursing research and nursing practice will be described. Prerequisites: Student accepted in Level II nursing program and is either currently enrolled in or has completed Quarter V.

HC 102X
Health Promotion Elective: Circuit Training
1 Credit Class 0 Lab 2
Comprehensive and balanced program that works every major muscle group in the body. Performed in minute intervals of aerobic conditioning and muscle strengthening movements.

HC 102Y
Health Promotion Elective: Yoga
1 Credit Class 0 Lab 2
Hatha Yoga philosophy and instruction as they relate to practicing postures that contribute to physical strength and flexibility. Spinal alignment and postural detail with recognition of poor postural habits and movement patterns. The body's reaction to stress is countered with relaxation methods. All postures are identified by their Sanskrit names.

HC 102Z
Health Promotion Elective: Holistic Health
1 Credit Class 1 Lab 0
Informative and practical program to improve personal health and ability to cope. Introduction to beginning meditation and relaxation, foods for preventive health, pain control, energy balancing, accupressure, reflexology, polarity, yoga and music relaxation.

HC 103
Cardiopulmonary Resuscitation
0.25-1 Credit Class 0.25-1 Lab 1
Practical course for lay persons in recognition and emergency care procedures for victims of cardiac arrest and respiratory emergencies. Card issued upon completion.

HC 105
Defensive Driving
0.25-1 Credit Class 0.25-1 Lab 0
Part of the National Safety Council's improvement program. Topics include preventing accidents, defensive driving techniques, avoiding collisions with vehicles, the art of passing and being passed and the "mystery crash."

HC 106 PACE
Cardiopulmonary Resuscitation for the Professional Rescuer
0.25-1 Credit Class 0.25-1 Lab 1
Practical course for health professionals in recognition and emergency care procedures for victims of cardiac arrest and respiratory emergencies. Card issued upon completion.

HC 110
Anatomy and Physiology I
3 Credits Class 3 Lab 2
Reproductive, endocrine, circulatory, excretory and respiratory systems with emphasis on their normal physiology. Includes a demonstration of physiological principles, dissection of appropriate specimens and microscopic examination of tissues. Prerequisite: HC 100.

HC 111
Medical Terminology II
3 Credits Class 3 Lab 0
Anatomical, physiological and pathological terminology pertaining to selected body systems and medical specialties are explored. Selected clinical procedures, laboratory tests and abbreviations are discussed. Prerequisite: HC 101.

HC 114 PACE
Standard First Aid
0.25-1 Credit Class 0.25-1 Lab 1
Prepares the student to meet the needs of most situations when emergency first aid care is needed and medical assistance is not excessively delayed. Increases knowledge of personal safety and accident prevention. Prerequisite: See instructor.

HC 114A
First Aid
0.25-0.5 Credit Class 0.25-0.5 Lab 0
Prepares the student to meet the needs of most situations when emergency first aid care is needed and medical assistance is not excessively delayed. Increases knowledge of personal safety and accident prevention. Prerequisite: See instructor.

HC 114B
Cardiopulmonary Resuscitation
0.25-0.5 Credit Class 0.25-0.5 Lab 0
Prepares the participant to respond to respiratory and cardiac emergencies of the adult patient. Skills and techniques learned will help the student stay calm and make decisions appropriate to keep a victim alive.

HC 115
First Responder
2 Credits Class 1 Lab 3
Training in emergency medical care for those who are apt to be the first person responding to an accident.

HC 116
First Aid Recertification Course
0.5 Credit Class 0.5 Lab 1
Reviews the standard first aid skills a person needs to act as the first link in the emergency medical services system. Prepares participants to respond correctly in emergencies. Skills and techniques learned will help the student stay calm and make decisions appropriate to keep a victim alive and injuries from becoming worse until the EMS system arrives. Course consists of adult CPR skills and first aid skills for injuries as well as medical emergencies. Prerequisite: Current adult CPR and First Aid course.

HC 117
CPR Recertification Course
0.5 Credit Class 0.5 Lab 1
Review of adult, infant and child CPR and community CPR courses. Information includes dealing with respiratory emergencies that could lead to cardiac arrest and providing first aid for cardiac emergencies. Prerequisite: Current CPR care.

HC 120
Anatomy and Physiology II
3 Credits Class 3 Lab 2
Nervous, special sensory, integumentary, skeletoarticular, muscular and digestive systems with emphasis on their normal physiology. Laboratory experience offer the opportunity to further clarify learning through the use of audiovisuals and microscopic and gross exercises illustrating anatomical and physiological properties. Prerequisites: HC 100 and HC 110.

HC 121
Medical Transcription
3 Credits Class 2 Lab 4
Transcribing medical reports from cassette transcribers. Emphasizes spelling, punctuation, grammar and proofreading. Patient histories, physical examinations, progress notes, discharge summaries, x-ray reports and letters are transcribed by the student. Prerequisites: HC 101, HC 111, SEC 135 and SEC 180.

HC 122
Swedish Massage
2 Credits Class 1 Lab 3
Introduction to Swedish massage techniques. This is the first course in a series of three classes exploring aspects of massage.

HC 123
Fascia and Joint Release
2 Credits Class 1 Lab 3
Introduction to fascia and joint release with some joint anatomy.

HC 124
Healing Through the Human Energy Field
2 Credits Class 2 Lab 2
Introduction to working with the human energy field.

HC 125
Activities Therapy I (National)
3 Credits Class 3 Lab 0
First of three courses to meet National Association for Activity Professionals (NAAP) requirements for activity director. Emphasizes planning and conducting activities for nursing home residents in a treatment-oriented approach.

HC 126
Activities Therapy II (National)
3 Credits Class 3 Lab 0
Second of three courses for planning and conducting activities for nursing home residents. Stresses the importance of each resident's situation when planning activities. Emphasizes a treatment-oriented approach.

HC 127
Activities Therapy III (National)
3 Credits Class 3 Lab 0
Last of three courses to meet NAAP requirements for activity director. Emphasizes planning and conducting activities for nursing home residents in a treatment-oriented approach.

HC 128
Activity Therapy Clinical I
1 Credit Class 0 Lab 3
Provides hands-on experience needed to apply the principles of the activity profession in the long term care setting.

HC 129
Activity Therapy Clinical II
1 Credit Class 0 Lab 5
Provides hands-on experience needed to apply the principles of the activity profession in the long term care setting. Prerequisite: HC 128.

HC 130
Basic Pathology
2 Credits Class 2 Lab 1
Introduction to diseases with emphasis on diseases of the blood, heart, blood vessels, excretory system, digestive system, liver, gallbladder, pancreas, respiratory system, endocrine system, reproductive system, nervous system, bones, joints, muscles and skin. Includes diseases related to hereditary disorders and neoplasia. Prerequisites: HC 100, HC 110 and HC 120.

HC 131
Fluids and Electrolytes
1 Credit Class 1 Lab 1
Life needs of the cell with an introduction to basic chemistry. Emphasizes assessment data, body fluids, electrolytes and acid base balance/imbalance. Prerequisites: HC 100, HC 110 and HC 120.

HC 140
Technical Aspects of Anatomy and Physiology
3 Credits Class 3 Lab 2
Anatomy and physiology of body systems. Fluids and electrolytes are covered as well as basics of pathology. Prerequisite: Admission to Enrichment.

HC 146
Fitness Leadership
1 Credit Class 1 Lab 0
Designed for those who plan to teach dance exercise. Guidelines on administration, instructor responsibilities, methods of instruction, anatomy and physiology, fitness factors, injury prevention, sports nutrition, safe use of light hand weights and CPR review.

HC 148
Exercise Physiology
3 Credits Class 3 Lab 0
Introduction to the physiology of exercise. Energy metabolism; principles of aerobic, strength and flexibility conditioning; neuromuscular physiology; cardiorespiratory physiology; methods of training and environmental considerations.

HC 149
Stress and Stress Management
1 Credit Class 1 Lab 0
Stress and its implication and relationship to illness. Alternatives in handling stress.

HC 150
Fitness Class Instruction
1 Credit Class 0 Lab 3
Designed for the student who plans to teach aerobic exercise. Guidelines on class administration, instructor responsibilities, instruction methods, anatomy and physiology, fitness factors, injury prevention, sports nutrition and safe use of light hand weights.

HC 151
Nutrition in the 90's
2 Credits Class 2 Lab 0
Concepts of nutrition and their application to personal eating patterns. Topics include nutrient, topical issues and methods of evaluating personal eating habits.

HC 153
Holistic Health
1 Credit Class 1 Lab 0
Improvement of personal health and ability to cope. Beginning meditation and relaxation, foods for preventative health, pain control, energy balancing, accupressure, reflexology, polarity, yoga and music relaxation are introduced.

HC 155
Sports Nutrition
4 Credits Class 4 Lab 0
Nutritional needs of the physically active individual in various environments. Use of erogenic aids and body composition are also covered.

HC 160
Child Care Practicum I
2 Credits Class 0 Lab 6
Provides the opportunity to interact with and plan activities for children in day care settings, head start programs and early childhood classes. Concurrent with HC 249A. Prerequisite: Admission to Nanny program.

HC 161
Fundamentals of Child Care
3 Credits Class 3 Lab 1
Fundamentals of child care. Includes assessment of children's mental and physical development; planning to meet safety, rest, nutritional, play, hygiene and educational needs. Addresses the prevention, recognition, and management of common childhood diseases. Corequisite: HC 160. Co- or prerequisite: HC 162. Prerequisites: HC 100, DT 102 and HC 160.

HC 162
Child Care Practicum II
2 Credits Class 1 Lab 8
Provides the opportunity to interact with, assess, plan play activities for and assist with the physical care of children in day care settings, head start programs and early childhood classes. Corequisite: HC 161. Prerequisites: HC 100, HC 160 and HC 250.

HC 163
Pediatric Emergencies
1 Credit Class 1 Lab 1
Standard first aid, water safety and pediatric aspects of CPR. Prerequisite: HC 100. Co- or prerequisites: HC 161 and HC 162.

HC 164
Dynamics of Child Care
3 Credits Class 3 Lab 0
Communication skills and technical and legal aspects of providing child care. Topics include confidentiality, parental authority, respect for parent's philosophy of child rearing, legal implications, child abuse symptoms and professional attitudes and appearance. Prerequisite: Admission to Nanny program or instructor permission.

HC 165
Child Care Practicum III
2 Credits Class 1 Lab 8
Provides an opportunity to utilize principles of activity therapy, fundamentals and dynamics of child care, food preparation, physiological, social, and psychological sciences and communication techniques to plan and implement care for children in a private home setting. Prerequisites: DT 102, HC 161, HC 162 and HC 163.

HC 166
Complementary Therapies
0.5 Credit Class 0.5 Lab 0
Introduces general public and health professionals to natural and complimentary therapies. Includes pain control through accupressure and non-drug therapies, stress management, vitamin and herb therapy.

HC 167
Loss, Grief and Dying
0.5 Credit Class 0.5 Lab 0
Exploring the dynamics of loss, grief and dying, this course helps nurses and other health professionals better comprehend feelings and responses to loss and grief. Develops an appreciation for the response of clients, the client's family and the colleagues with whom they work.

HC 200
Pathophysiology for Nurses
3 Credits Class 3 Lab 1
Designed for the Level II Nursing student to explore recurring pathological changes in body structure and function leading to alterations in health. Emphasis on identifying interferences in basic human needs of metabolism, immunity, tissue perfusion, cardiovascular, respiratory, renal, and neurological function. Correlation in the clinical setting with expected human responses, signs, symptoms and laboratory data. Prerequisites: HC 110, HC 130 and HC 131 or HC 140.

HC 202
Community Health
3 Credits Class 3 Lab 0
Organizational aspects of community health including health professionals, public health agencies and other aspects of health delivery. Physical aspects of community health including communicable disease, chronic disease and safety; psychological aspects including drug, alcohol and mental health problems; environmental aspects including air, water and food inspection; special aspects of community health including care of infants, mothers and senior citizens.

HC 203
Cardiopulmonary Resuscitation Instructor
1 Credit Class 1 Lab 0
Instructor course in cardiopulmonary resuscitation leading to instructor certification through the American Heart Association or American Red Cross. Basic instruction techniques, background information on heart attacks and rationale for application of CPR.

HC 204
Standard First Aid Instructor
1 Credit Class 1 Lab 0
American Red Cross Standard First Aid and Adult CPR Instructor Course. Application of varying teaching methods used by the American Red Cross to provide the public with knowledge and skills necessary in an emergency. Upon successful completion of this course the participant will be certified as an American Red Cross Standard First Aid Instructor. (All American Red Cross requirements must be met before student may teach classes.)

HC 220
Personnel Supervision
3 Credits Class 3 Lab 0
Functions and techniques of personnel management. Topics include external and internal organizational factors influencing personnel activities, employee selection, employee assimilation, employee compensation and environmental factors. Prerequisite: Second year standing.

HC 247
Microbiology
4 Credits Class 4 Lab 1
How microorganisms live in the world around us and our relationship to them. Systematically covers bacteriology, immunology, mycology, viruses and parasites.

HC 248
Hospital Safety
2 Credits Class 2 Lab 0
Safety practices and procedures for employees in hospitals and nursing homes.

HC 249
Activities Therapy (OHIO)
3 Credits Class 3 Lab 0
Planning and conducting activities for nursing home residents. Stresses the importance of each resident's situation when planning activities through documentation of interests and personal needs.

HC 250
Creative Activity for Children
4 Credits Class 4 Lab 1
Planning and implementing developmentally appropriate activities for young children. Stresses the selection, evaluation and presentation of music, art, books, materials and activities that are developmentally appropriate.
Prerequisite: Admission to Nanny program or instructor permission.

HC 270
Massage Techniques
2 Credits Class 1 Lab 3
Use of massage for frequently encountered dysfunctions.

HC 271
Anatomy and Physiology Principles
5 Credits Class 5 Lab 0
Study of systems of the body with emphasis on healthy physiology. Some pathology will be covered. Association with the healing effects of massage will be discussed.

HC 272
Massage Theory
3 Credits Class 3 Lab 1
Second of two classes on the use of massage to correct dysfunctions of the body.

HC 273
Musculoskeletal System/Massage Therapy
2 Credits Class 1 Lab 4
Muscles, their attachments, directions, and movements.

HC 274
Massage: Professionalism and Ethics
3 Credits Class 3 Lab 2
Introduction to the ethical considerations of massage therapy.

HC 275
Movement Analysis
0.5-1 Credit Class 0.5-1 Lab 0
Introduction to movement analysis. Upon completion of this course the student will be able to recognize the principles of movement analysis and apply these principles to the practice of massage therapy.

HC 275A
Movement Analysis
0.5 Credits Class 0.5 Lab 0

HC 276
Craniosacral Release
0.5 Credit Class 0.5 Lab 0
Therapeutic applications that will help the student accomplish clinical objectives. Cranialsacral pulse is transmitted throughout the body via fluid pressures and tension on the fascial planes and connections. The student will learn ways of facilitating the pulse by freeing fascial planes and by easing fascial restrictions of the movements of the cranial bones.

HC 277
Massage Laboratory Practice
1 Credit Class 0 Lab 3
Provides the opportunity to utilize massage therapy skills in a practice setting.

HC 290
Special Topics in Health Core
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

HC 291
Individual Study in Health Core
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

HC 292
Field Experience in Health Careers
1-4 Credits Class 0 Lab 12-48
On-the-job training in a health care facility through special arrangement with an instructor.

HC 293
Health Careers Directed Practice
1-8 Credits Class 0 Lab 5-40
Directed practice instruction in the performance of a particular function from an assigned instructor, and then observed and critiqued by the instructor in a repeat performance of that function.

HC 294
Cooperative Work Experience in Health Careers
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

HC 295
Fitness Leadership Seminar
1-3 Credits Class 1-3 Lab 0
Discussion of job-related concerns and assistance with practicum.

HC 296
Fitness Leadership Practicum
1 Credit Class 0 Lab 7
The student is placed in a work environment for a minimum amount of time to gain experience before graduation.

HC 297
Health Careers Observation Hour
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

HC 298
Health Careers Internship
3-6 Credits Class 0 Lab 20-40
On the job training in the workplace of a cooperating agency. Coordinated by an instructor.

HC 299
Health Careers Internship Seminar
3 Credits Class 3 Lab 0
Discussion of internship experiences, objectives, and evaluation.

Health Information Management

HIM 100
Health Information and Health Agency Orientation
3 Credits Class 3 Lab 0
Introduction to the health information management field and the structure, characteristics and documentation requirements of various health care facilities. Includes the value and uses of the medical record and the roles and functions of the HIM technology practitioner. The influence, roles and functions of regulatory and accrediting agencies are presented as well as an introduction to the roles and functions of the American Health Information Management Association.

HIM 110
Health Records and Procedures I
3 Credits Class 2 Lab 4
Introduction to acute care hospitals and ambulatory care facilities, their ownership, mission and organizational structure; the Uniform Health Discharge Data Set (UHDDS); the Uniform Bill 82/92 (UB 82)/ HCFA form 1500; how the medical record is compiled, abstracted, appropriate medical record content; knowledge of JCAHO, conditions of participation and AOA documentation requirements for acute care and ambulatory patient records. Prerequisite: HIM 100.

HIM 112
Health Information and the Law
3 Credits Class 3 Lab 0
Legal principles applying to health information including how to reserve the confidentiality of patient-related data. Preparation of a medical retention plan based on current legal statute, JCAHO, Medicare and Medicaid requirements. Develops skills responding to various requests for health information via case studies, authorizations for release of information, court orders and subpoenas. Prerequisite: HIM 100.

HIM 120
Basic Coding Elements
3 Credits Class 2 Lab 4
Nomenclatures and classification systems. Focuses on assignment of codes utilizing coding principles for ICD-9-CM. Identification of the principle diagnosis, principle procedure and sequencing of selected codes. Prerequisites: HC 100, HC 101, HC 110, HC 111, HC 120, HIM 110 and HIM 121.

HIM 121
Health Records and Procedures II
3 Credits Class 2 Lab 4
Long term care and mental health records; medical record form design and format types; management of incomplete medical records; health care facility reimbursement, nomenclatures and classification systems; filing, storage and microfilm; indices and registers and review of the release of information function. Prerequisites: HIM 100 and HIM 110.

HIM 150
Legal Documentation
0.5 Credit Class 0.5 Lab 0
Documentation requirements, informed consent, retention of records and responding to requests for health information.

HIM 200
Health Statistics
3 Credits Class 2 Lab 3
Health data collection methodologies. Topics include health data definitions, collection of health data, computing institutional statistics and presentation of health data. Develops skills in preparing data for analysis, calculating institutional statistics and interpreting statistical data. Prerequisites: HIM 100 and HIM 110.

HIM 201
Health Information Management Directed Practice I
4 Credits Class 0 Lab 14
Directed practice in the recognition of ethical responsibilities inherent in the role of the health information management technician. Practice of medical record procedures including filing , maintenance and acquisition of health records, handling and responding to requests for information, transcription, outpatient coding and forms development, design, approval, evaluation and usage. Prerequisite: All first year HIM courses.

HIM 202
Computer Applications in Health Information Management
1 Credit Class 1 Lab 1
Computer software programs utilized by the health information manager to compile a master patient index, abstract information from patient records for research studies, reimbursement, indices, registries and vital statistics; compile disease, operation and physicians' indices; prepare physician incomplete and delinquent record reports; track incomplete charts and correspondence; and compile hospital inpatient statistical analysis. Prerequisite: MICS 121.

HIM 203
Applied Concepts of Coding
3 Credits Class 2 Lab 4
Emphasizes sequencing of codes and using information contained in the medical record to choose the principle diagnosis and procedure. The interrelationship of disease and procedure classification systems, disease and procedure indices, physician profiles and case mix classification systems will be explored. Prerequisite: HIM 120.

HIM 204
Current Topics in Health Information Management
0.5-3 Credits Class 0.5-3 Lab 0
Topics of current interest in health information management.

HIM 211
Health Information Management Directed Practice II
4 Credits Class 0 Lab 14
Application of classroom learning and hands-on experience with entry-level competencies for Accredited Record Technician. Practice of medical record procedures include filing, maintenance and acquisition of health records, handling and responding to requests for information, transcription, outpatient coding and forms development, design, approval, evaluation and usage. Prerequisites: HIM 201 and all first year HIM courses.

HIM 212
Health Information Management Quality Control
2 Credits Class 2 Lab 0
Quality assurance, utilization review, risk management, regulatory agencies driving quality assurance/quality improvement and reimbursement procedures in health care facilities. Prerequisite: HIM 200.

HIM 215
Interpreting Diagnostic Data
2 Credits Class 2 Lab 0
Clinical significance of laboratory tests, invasive diagnostic tests and major drug classifications. Effective use of drug and laboratory test reference texts. Abstracts information from patient records for utilization review purposes. Prerequisites: HC 100, HC 110, HC 120 and HC 130.

HIM 220
Planning for Health Information Services
3 Credits Class 3 Lab 0
Planning, organizing, controlling and directing a medical record department. The student compares, evaluates and selects personnel and new equipment for a medical record department and writes proposals for administrators defending their rationale for equipment selection. Introduces the concepts of planning, budgeting, flow charting and designing floor plans to scale. Prerequisite: HIM 200.

HIM 221
Health Information Management Directed Practice III
4 Credits Class 0 Lab 14
Prepares the HIM student to competently perform functions in a medical record department and recognize the ethical responsibilities inherent in the role of the HIM technician. Practice of medical record procedures including flow charting, employee work scheduling, quality and quantity standards, quality assurance studies, updating job descriptions and disease research. Prerequisite: HIM 211.

HIM 222
CPT Coding
0.5-3 Credits Class 0.5-3 Lab 0
Introduces the current procedural terminology text; CPT codes, HCPCS and CPT editorial notations; evaluation and management codes; different surgical packages; the inclusive global concept of the AMA CPT-4 surgical package; starred procedures; coding of surgical repairs; correct usage of casting codes; application of medicine codes and correct ways to attack and write modifiers. Prerequisite: First year and fourth quarter HIM courses.

HIM 290
Special Topics in HIM
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

HIM 291
Independent Studies in Health Information Management
1 - 5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

HIM 292
Field Experience in Health Information Management
1-4 Credits Class 0 Lab 12-48
On-the-job training in a health information management facility through special arrangement with an instructor.

HIM 293
Directed Practice in Health Information Management
1-8 Credits Class 0 Lab 5-40
Directed practice instruction in the performance of a particular function from an assigned instructor, and then observed and critiqued by the instructor in a repeat performance of that function. Prerequisite: Instructor permission.

HIM 294
Cooperative Work Experience in Health Information Management
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week. Prerequisite: Instructor permission.

HIM 296
Health Information Management Practicum
1-6 Credits Class 0 Lab 7-42
The student is placed in an actual working environment for a minimum amount of time to gain experience before graduation.

HIM 297
Observation Hour in Health Information Management
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity. Prerequisite: Instructor permission.

HIM 298
Health Information Management Internship
3-6 Credits Class 0 Lab 20-40
On the job training in the workplace of a cooperating agency. Coordinated by an instructor.

HIM 299
Health Information Management Internship Seminar
3 Credits Class 3 Lab 0
Discussion of internship experiences, objectives, and evaluation.

Hotel/Restaurant

HOTR 120
Introduction to the Hospitality Industry
2 Credits Class 2 Lab 0
Introduction to the lodging and food service industry. Explanation of the interrelationships involved and the variety of career opportunities available.

HOTR 140
Accounting for Hospitality Services
3 Credits Class 3 Lab 0
Application of practical accounting techniques to the hospitality service industry. Emphasizes the needs of management and the application of accounting concepts and techniques to managerial decision making. Front office procedures, food and beverage control and useful hotel-restaurant statistics are surveyed. Prerequisite: ACC 100.

HOTR 170
Marketing Small Properties
3 Credits Class 3 Lab 0
Basic knowledge and practical experience enabling the student to develop strategic marketing plans for hotel/motel properties.

HOTR 211
Hotel Restaurant Lab 10A
10 Credits Class 2 Lab 24
All phases of hotel and restaurant operations are covered through hands-on experience at the Quality Inn. Students are assigned a work station and rotate periodically. This lab is scheduled seven days per week, evenings and holidays, and includes the annual Paul Bunyan Show.

HOTR 212
Hotel Restaurant Lab 10B
10 Credits Class 2 Lab 24
All phases of hotel and restaurant operations are covered through hands-on experience at the Quality Inn. Students are assigned a work station and rotate periodically. This lab is scheduled seven days per week, evenings and holidays, and includes the annual Paul Bunyan Show.

HOTR 213
Hotel Restaurant Lab 10C
10 Credits Class 2 Lab 24
All phases of hotel and restaurant operations are covered through hands-on experience at the Quality Inn. Students are assigned a work station and rotate periodically. This lab is scheduled seven days per week, evenings and holidays, and includes the annual Paul Bunyan Show.

HOTR 223
Hotel Restaurant Lab 5A
5 Credits Class 1 Lab 14
Integrates hands-on experience with academic instruction. Application of classroom concepts to practical situations in assigned work stations at the Quality Inn.

HOTR 224
Hotel Restaurant Lab 5B
5 Credits Class 1 Lab 14
Integrates hands-on experience with academic instruction. Application of classroom concepts to practical situations in assigned work stations at the Quality Inn.

HOTR 225
Hotel Restaurant Lab 5C
5 Credits Class 1 Lab 14
Integrates hands-on experience with academic instruction. Application of classroom concepts to practical situations in assigned work stations at the Quality Inn.

HOTR 226
Hotel Restaurant Lab 5D
5 Credits Class 1 Lab 14
Integrates hands-on experience with academic instruction. Application of classroom concepts to practical situations in assigned work stations at the Quality Inn.

HOTR 227
Hotel Restaurant Lab 5E
5 Credits Class 1 Lab 14
Integrates hands-on experience with academic instruction. Application of classroom concepts to practical situations in assigned work stations at the Quality Inn.

HOTR 228
Hotel Restaurant Lab 5F
5 Credits Class 1 Lab 14
Integrates hands-on experience with academic instruction. Application of classroom concepts to practical situations in assigned work stations at the Quality Inn.

HOTR 241
Front Office Operations
3 Credits Class 3 Lab 1
Introduction to technical innovation and technical theory such as yield management, manual night audit and record procedures. Combines technical theory with quality service concepts.

HOTR 242
Supervisory Housekeeping
2 Credits Class 2 Lab 0
Planning, organizing, staffing, directing and controlling housekeeping operations within budgets.

HOTR 243
Hotel and Restaurant Law
2 Credits Class 2 Lab 0
Laws significant to the hospitality industry. Emphasis on awareness of potential legal problems is designed to enable resolutions of problems before they could result in liability.

HOTR 244
Audits and Controls for Lodging Establishments
2 Credits Class 2 Lab 3
Principles of managerial and basic marketing management concepts. Covers the management of personnel and routine managerial duties.

HOTR 253
Interior Decoration and Lodging Establishments
1 Credits Class 1 Lab 0
Successful design of hospitality facilities. Covers whether or not to choose a professional designer, approaching a remodeling job, selecting a theme, correcting structural defects and using color effectively.

HOTR 260
Merchandising and Sales
3 Credits Class 3 Lab 1
Researching potential sources of business, analyzing potential customer needs, selling services and maintaining long term customer relationships.

HOTR 263
Facilities Management
2 Credits Class 2 Lab 0
Energy management, heating, refrigeration, ventilation, air conditioning, electricity and water systems. Practical exercises in food service equipment and use of tools and materials.

HOTR 275
Resort Management and Development
3 Credits Class 3 Lab 0
Application of successful business resort concepts to any type of property. Reflects the increase in importance attached to vacation travel and special weekend packages.

HOTR 290
Special Topics in Hotel/Restaurant Management Technology
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

HOTR 291
Individual Study in Hotel/Restaurant Management Technology
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

HOTR 292
Hotel/Restaurant Management Field Experience
1-4 Credits Class 0 Lab 12-48
On-the-job training in a hotel/restaurant facility through special arrangement with an instructor.

HOTR 293
Hotel/Restaurant Directed Practice
1-8 Credits Class 0 Lab 5-40
Directed practice instruction in the performance of a particular function from an assigned instructor, and then observed and critiqued by the instructor in a repeat performance of that function.

HOTR 294
Hotel/Restaurant Cooperative Work Experience
1-6 Credits Class 2 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

HOTR 295
Hotel Practicum Seminar
2 Credits Class 2 Lab 0
Discussion of job-related concerns and assistance with practicum.

HOTR 296
Hotel Practicum
1-6 Credits Class 0 Lab 8-48
The student is placed in an actual working environment for a minimum amount of time to gain experience before graduation.

HOTR 297
Hotel/Restaurant Observation Hour
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

HOTR 298
Hotel/Restaurant Internship
3-6 Credits Class 0 Lab 20-40
On-the-job training in the workplace of a cooperating agency. Coordinated by an instructor.

HOTR 299
Hotel/Restaurant Internship Seminar
3 Credits Class 3 Lab 0
Discussion of internship experiences, objectives, and evaluation.

Hotel/Restaurant/ Culinary Arts

HRCA 100
Customer Service Orientation
1 Credit Class 1 Lab 0
Human personality and the importance of courtesy and hospitality. Includes telephone etiquette and guest relations at the front desk. Stresses the importance of dining room atmosphere and food service etiquette as well as practical applications for handling complaints.

HRCA 101
Mixology and Bar Management
2 Credits Class 2 Lab 0
Basic understanding of how to mix drinks. Surveys basic drinks and other spirits and includes management principles. Emphasizes cost control and purchasing.

HRCA 102
Wines and Beers
2 Credits Class 2 Lab 0
Focus on wines and beers of the world including their origin and history. Wine growing regions of Europe, North America and countries new to wine exportation are studied. Traditions, trends, proper glasses, presentation and terminology are covered. Prerequisite: Must be at least 21 years of age.

HRCA 104
Hospitality Management Development
5 Credits Class 1 Lab 12
An opportunity to be trained and to perform as a manager in a full service hotel. Prerequisite: Departmental permission.

HRCA 107
Hospitality Train the Trainer
2 Credits Class 2 Lab 0
Provides the ability to train personnel in new or established hotel/restaurant operations. Prerequisite: Must have completed at least 60 credit hours in Culinary Arts or Hotel/Restaurant.

HRCA 108
Hospitality Human Resources
2 Credits Class 2 Lab 0
Instruction and discussion for a basic understanding of hospitality resource management.

HRCA 109
Hospitality Contemporary Issues
1-2 Credits Class 1-2 Lab 0
Development of professional behaviors and attitudes for hospitality industry. Covers self-assessment and career growth strategies.

HRCA 110
Safety and Sanitation
2 Credits Class 2 Lab 0
Prevention of food, alcohol and safety-related incidents that could cause illness or injury to customers, employees or others. Includes new information on Hazard Analysis Critical Control Points food safety system, emerging pathogens that cause food-borne illness, handling and using shell eggs and working with employees with HIV and AIDS. Also includes Hazard Communication Standard required by OSHA, integrated pest management and crisis management.

HRCA 111
Stocks, Sauces and Soups
3 Credits Class 2 Lab 3
Preparation of foods utilized in commercial kitchens including stocks, soups, sauces, vegetables and farinaceous products.

HRCA 112
Salads, Sandwiches and Eggs
3 Credits Class 2 Lab 3
Introduction to pantry and breakfast cookery including salads, salad dressings, sandwiches and breakfast preparations.

HRCA 113
A La Carte Cookery
3 Credits Class 2 Lab 3
Fundamentals of meat, poultry and seafood cookery. Preparation of entrees cooked to order, accompaniments, garnishing, plate appearance and time management. Prerequisite: HRCA 112.

HRCA 114
Food Management
3 Credits Class 2 Lab 3
Management organization, menu planning, material control, recipes and costing, personnel methods, equipment and facilities, food production methods and an introduction to baking and desserts.

HRCA 115
Breads and Baking Basics
3 Credits Class 2 Lab 3
Bakery products, tools and equipment, weights and measures and the baking process. Preparation of yeast dough products and quick breads. The role of the pastry chef and bake shop management is reviewed.

HRCA 116
Hospitality Menu Planning
2 Credits Class 2 Lab 0
Planning, utilization, pricing and integrating a menu into a commercial food service establishment. The menu concept as it relates to the entire operation is analyzed.

HRCA 117
Hospitality Supervision
3 Credits Class 3 Lab 0
Effective supervision of employees. Focuses on basic principles such as recruiting, interviewing, discipline, motivation and leadership styles.

HRCA 120
Hospitality Security
1 Credit Class 1 Lab 0
Security and loss prevention for hospitality properties. Safety and loss are addressed as necessary management programs and policies to ensure successful operations.

HRCA 121
Hospitality Ethics
2 Credits Class 2 Lab 0
Business values and how they affect actions, decisions and conduct in each department of a hotel. Policies, written and understood, are analyzed from employee, management and owner viewpoints.

HRCA 125
Basic Table Service
3 Credits Class 2 Lab 3
Training in the art of table service. American, French and Russian service will be presented and practiced. Includes training in the areas of wine and beverage service.

HRCA 145
Food Product Identification and Purchasing
3 Credits Class 3 Lab 0
Identification and utilization of various food products used in commercial cooking. Purchasing, receiving, storing and issuing products are reviewed.

HRCA 223
Food, Beverages, Labor Cost Control
3 Credits Class 3 Lab 0
Introduction to techniques for developing new customers, meeting customer needs, maximizing profits and maintaining long term customer relationships. Includes cost, sales and control of food and beverage operations.

HRCA 224
Lounge and Beverage Management
2 Credits Class 2 Lab 0
Introduction to bar and beverage management. Planning, equipping, staffing, operating and marketing a facility. How beverages are made, purchased, controlled and mixed into different kinds of drinks. Music, entertainment, lighting and a review of Ohio laws, service and food are discussed.

HRCA 227
IBM Hospitality Applications
2 Credits Class 1 Lab 3
IBM computer applications used in the hospitality industry in the areas of inventory, accounting, business correspondence and spreadsheets.

HRCA 229
Distinguished Guest Speaker
1 Credit Class 1 Lab 0
National and international leaders serve as guest speaker on hospitality careers, current and future trends.

HRCA 230
Food and Beverage Services
3 Credits Class 3 Lab 0
Principles of quality service and development of food and beverage service skills. Topics include dining room service, buffet and banquet service, table cookery, wines, spirits and beers. Ohio laws and regulations for alcohol control are reviewed.

HRCA 231
Serving Alcohol With Care
1 Credit Class 1 Lab 0
Serving alcohol with care, understanding Ohio Liquor Laws and recognizing effects of alcohol consumption. Prepares the student to deal with potential alcohol related problems and aid in the recognition and fulfillment of social/moral obligations while engaged in the sale and service of alcoholic beverages. Upon successful completion, a certificate from the American Hotel and Motel Association is issued.

HRCA 240
Festival Catering Production
1 Credit Class 1 Lab 1
Special challenges in preparing food for large-volume festival food service.

HRCA 241
Festival Catering Management
1 Credit Class 1 Lab 1
Special challenges in preparing food for large-volume festival food service.

HRCA 250
Bed and Breakfast Operations
1 Credit Class 1 Lab 0
Basics of starting a bed and breakfast including selecting furnishings and equipment, keeping records, developing breakfast menus, serving guests and working with rules and regulations of the industry.

HRCA 264
Budgeting for Hospitality
3 Credits Class 3 Lab 0
Financial accounting concepts used by managers and supervisors in the hospitality industry. Includes development of an annual budget for a full service hotel. Prerequisite: HRCA 130.

HRCA 290
Special Topics in Hotel/Restaurant
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

HRCA 291
Individual Study in Hotel/Restaurant/ Culinary
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

HRCA 292
Field Experience in Hotel/Restaurant/ Culinary
1-4 Credits Class 0 Lab 12-48
On-the-job training in a hotel/restaurant facility through special arrangement with an instructor.

HRCA 294
Hotel/Restaurant Cooperative Work Experience
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

HRCA 295
Hotel/Restaurant/Culinary Practicum Seminar
1-3 Credits Class 1-3 Lab 0
Discussion of job-related concerns and assistance with practicum.

HRCA 296
Practicum in Hotel/Restaurant/Culinary
1-6 Credits Class 0 Lab 8-48
The student is placed in a work environment for a minimum amount of time to gain experience before graduation.

HRCA 297
Hotel/Restaurant/Culinary Observation Hour
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

Human Services

HS 100
Client Caseworker Interface
3 Credits Class 3 Lab 0
Roles, rights and responsibilities of the client and caseworker. Includes basic client interviewing techniques.

HS 101
Information Management Skills for Human Services Caseworkers
3 Credits Class 3 Lab 0
Interfacing with various federal programs as well as a presentation of organizational skills, time management skills and conflict management techniques. Includes practicum covering caseload information management techniques.

HS 102
Eligibility Determination for Federal Assistance Programs
3 Credits Class 3 Lab 0
Identification of various federal assistance programs including the purposes, goals, policies, rules and eligibility criteria for receiving assistance. Practicum on eligibility determination included.

HS 103
Supplemental Writing Skills for Human Services Caseworkers
2 Credits Class 2 Lab 0
Presentation of documentation skills necessary to accurately complete agency forms.

HS 104
Fraud Investigation in Income Maintenance
3 Credits Class 3 Lab 0
Overview of the responsibilities of the fraud investigation unit in income maintenance. What constitutes fraud, roles and responsibilities of the fraud investigator and caseworker and fraud unit collaboration with the CDHS are discussed. Investigative techniques are identified along with interviewing techniques and the use of the CRIS-E system as related to investigations.

HS 105
Introduction to JOBS/LEAP Program
3 Credits Class 3 Lab 0
Basic foundation and introductory course for the JOBS/LEAP worker in the human service agency. Presents the history and development of social services, development of the JOBS program and its relationship to our current economy, function of the JOBS/LEAP and their relationship to local, state and federal agencies. Training and interviewing techniques are covered as well as job duties and responsibilities. Client participation and motivation factors are reviewed.

HS 106
Resolving Case Problems in Income Maintenance
3 Credits Class 3 Lab 0
Designed for income maintenance workers who have acquired the prerequisite knowledge for exploring issues and problem solving through the case study method. Students will work in self-guided groups and be challenged to study the cases and evaluate a chosen course of action.

HS 110
Overview of Child Support Enforcement
3 Credits Class 3 Lab 0
Origins and history of child support enforcement at the federal and state levels. The importance of networking within the services and assistance areas for child support is covered as well as learning how to obtain and use information in child support cases.

HS 111
Caseworker Recipient Procedures in Child Support Enforcement
3 Credits Class 3 Lab 0
General understanding of cultural diversity, communication techniques when working in potentially volatile situations and confidentiality with the child support enforcement system. Includes a review of caseworker management skills and negotiation and/or caseload management techniques.

HS 112
Conducting CSEA Investigations
3 Credits Class 3 Lab 0
Training in the use of locator systems as well as familiarization with various federal, state and local agencies useful in locating absentee parents. Emphasizes testing information for accuracy and includes practicum for specific CSEA investigation techniques.

HS 113
Court Orders in Child Support Enforcement
2 Credits Class 2 Lab 0
Introduction to the purposes of judicial process and various types of court orders. Included are the formulas and guidelines by which child support obligations are determined.

HS 114
Resolving Case Problems in Child Support Enforcement
2 Credits Class 2 Lab 0
Designed for CSE workers who have acquired the prerequisite knowledge for exploring issues and problem solving through the case study method. Students will work in self-guided groups and be challenged to study the cases and evaluate a chosen course of action.

HS 120
Motivating and Improving Performance of Agency Employees
3 Credits Class 3 Lab 0
Instruction in basic management styles while learning specific factors in employee job performance, morale and productivity. Specific methods for coaching and training employees as well as handling difficult employees and conflict resolution are covered.

HS 121
Managing Priorities, Time and Information of Agency Employees
3 Credits Class 3 Lab 0
Techniques designed to help supervisors learn basic time and information management skills. Setting priorities, timely communication, fiscal planning and management will be covered.

HS 122
Communication Skills for Supervisors
3 Credits Class 3 Lab 0
How to promote team building and set up and facilitate meetings to achieve goals. Additional techniques are stressed to help the supervisor learn to document and write effective agency communications.

HS 130
Case Management in the JOBS and LEAP Programs
3 Credits Class 3 Lab 0
Focus on the Public Assistance Manual as it relates to the JOBS and LEAP programs, covering various components of the programs, how LEAP is tied into JOBS and the importance of proper assignment. Client rights to due process are discussed as well as proper use of resources available on the state and local levels. Emphasizes the concept of managing the clients' services through case management techniques. Concurrent with HS 296.

HS 131
Collaboration Among IV-A, IV-D and IV-F Programs
3 Credits Class 3 Lab 0
Encourages collaboration among IV-A (Income Maintenance), IV-D (Child Support) and IV-F (JOBS) programs across the State of Ohio. Examines legal bases, goals and the idea of interdependence being the effect that one program can have on another in terms of agency funding, client services and workload. Key points of collaboration among the programs are also identified. Concurrent with HS 296.

HS 132
Strategy for Achieving Excellence in Human Services
3 Credits Class 3 Lab 0
Maximizing the contributions that team-building, stress management and coping with change can make to a smooth and productive program operation. Includes discussion on the developing and changing roles of IM caseworkers, CSE investigators and JOBS workers. Analysis of the personal factors that influence the acceptance or rejection of change and strategies for coping with change. Identification of the signs of stress and strategies for overcoming stress and increasing productivity. Focus on the benefits of working as a team to workers, clients and programs. Concurrent with HS 296.

HS 133
Maintaining Professional Safety in Human Services
0.5-2 Credits Class 0.5-2 Lab 0
Increasing and maintaining personal and professional safety in both the office and the field. Methods for preventing and defusing potentially unsafe situations are explored. Examines beliefs, attitudes and actions that can improve and enhance worker/client interaction.

HS 134
Exploring Administrative Processes in CSE
2 Credits Class 2 Lab 0
The administrative processes embodied in Senate Bill 10 for establishing paternity and support with a review of the rationale and origins of the bill. Includes reviewing each phase of the process, from the details of procedures to the criteria for decision-making.

HS 135
Supervising Collaboration Among IV-A, IV-D, IV-F Programs
2 Credits Class 2 Lab 0
Exploration of the interrelatedness of IV-A, IV-D and IV-F programs and the role of the supervisor in supporting interface. Examines the legislative foundation, goals, key components and linkages of each program. Addresses improving coordination between programs, developing and supporting agency rules and policy impacting coordination and identifying the importance of monitoring compliance with rules and policy supporting interface activities.

HS 150
Foundations of Mental Retardation/ Developmental Disability
4 Credits Class 4 Lab 0
Understanding of the person disabled with developmental disabilities and an orientation to the broad spectrum of disabilities. Provides an introduction to the technical terminology associated with those disabilities, what the disability is and how to work with the disability. Legal aspects of mental retardation programs and the legal rights and constraints of the consumer will be reviewed.

HS 151
Behavior Management
4 Credits Class 4 Lab 0
Behavior management in various settings. Emphasis will be given to hospitals, schools, correctional institutions, mental retardation facilities and programs of various kinds in which the behavior management technician would be employed.

HS 201
Case Management
3 Credits Class 3 Lab 2
Theory and practice of case analysis. Outlines case analysis as it specifically relates to the fields of mental retardation, mental health, and vocational rehabilitation. Includes the roles and functions of a case analyzer, skills needed to effectively administer and service caseload activity, utilization of community services and maintaining a client centered approach to case analysis. Prerequisite: CORR 265 or instructor permission.

HS 202
Case Crisis Management
3 Credits Class 3 Lab 0
Understanding severe acting-out behaviors. Crisis is often a period of reaction to another's behavior with a "think about it later" attitude. This course is meant to reverse that procedure. Prerequisite: CORR 265 or instructor permission.

HS 290
Special Topics in Human Services
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

HS 291
Individual Studies in Human Services
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

HS 292
Field Experience in Human Services
1-4 Credits Class 0 Lab 12-48
On-the-job training in a human services facility through special arrangement with an instructor.

HS 294
Human Services Cooperative Work Experience
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

HS 295
Human Services Practicum Seminar
1-3 Credits Class 1-3 Lab 0
Discussion of job-related concerns and assistance with practicum.

HS 296
Human Services Practicum
1-6 Credits Class 0 Lab 7-42
The student is placed in a work environment for a minimum amount of time to gain experience before graduation.

HS 297
Human Services Observation Hour
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

HS 298
Human Services Internship
3-6 Credits Class 0 Lab 20-40
On the job training in the workplace of a cooperating agency. Coordinated by an instructor.

HS 299
Human Services Internship Seminar
3 Credits Class 3 Lab 0
Discussion of internship experiences, objectives, and evaluation.

HS 303
Program Support, Policy Interpretation and Monitoring
2 Credits Class 2 Lab 0
Relates supervisory role in supporting agency rules and policies such as implementation, communication and the role in monitoring compliance. Emphasizes skills necessary to assist employees in the use of resource manuals.

Humanities

HUM 200
Introduction to World Literature
3 Credits Class 3 Lab 0
Examines various literary works representing historical periods from ancient Mesopotamia through the twentieth century. Presents a progression of literary styles and forms representing the universality of human concerns through the ages.

HUM 201
Western Civilization and Culture
3 Credits Class 3 Lab 0
Provides an understanding that the human experience is not, and has never been, a series of stagnant, isolated moments. Students will learn to appreciate the fact that all people have not shared the same world views, opportunities and problems.

HUM 202
Understanding and Appreciating Theatre Arts
3 Credits Class 3 Lab 0
Designed to give the student an understanding and appreciation as well as a historical perspective of the development of theatre arts. The student will study plays that are considered classics in the world of theatre arts.

HUM 203
Ethics, Values and Morality
3 Credits Class 3 Lab 0
Rationales by which individuals and societies determine what constitutes ethical and moral behavior. Includes an overview of moral philosophy and theories of value formation.

HUM 204
Twentieth Century U.S. Music
3 Credits Class 3 Lab 0
Explores the predominant music of the United States during the twentieth century. Includes an examination of the foundations and development of classical, jazz, popular, folk and Broadway music of the last one hundred years.

HUM 290
Special Topics in Humanities
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

HUM 291
Individual Studies in Humanities
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

Juvenile

JUV 100
Juvenile Residential Services
3 Credits Class 2 Lab 4
Operation and programming of juvenile institutional and community-based residential facilities. Includes a review of the history, function, social purposes, programs and their effectiveness.

JUV 101
Family Dynamics
3 Credits Class 3 Lab 2
Family interaction and functioning in response to external and internal pressures. Includes a review of symptoms of family dysfunction that come to the attention of authoritative agencies and official responses to those problems.

JUV 102
Juvenile Delinquency
3 Credits Class 3 Lab 0
History, nature and extent of juvenile delinquency. Theories of causation are reviewed in the study of past and current prevention, control and treatment methods.

JUV 105
Child Abuse
3 Credits Class 3 Lab 2
Dynamics related to child abuse, neglect and abandonment. Includes an overview of the extent of abuse and related dynamics. The influence of abuse on current and future behavior along with its impact on personality development is also explored.

JUV 110
Adolescent Cognitive Behavior
3 Credits Class 3 Lab 0
Dysfunctional cognitive and behavioral patterns of adolescents that bring them into contact with the juvenile justice system. Assessment techniques that identify these thinking errors are presented with discussion of intervention methods to assist the youth in modifying their thinking and behavior.

JUV 111
Juvenile Sexual Offender
3 Credits Class 3 Lab 0
Study of the juvenile offender who has been involved with sexually acting out sexual abuse or sexual assault. Causes and results of such behavior will be compared with current treatment interventions.

Languages

LANG 101
Street Spanish for Law Enforcement Rangers
1 Credit Class 0.5 Lab 1.5
Practical Spanish vocabulary which will aid in effective communication with Spanish speaking persons during patrol situations.

LANG 120
Beginning Spanish
3 Credits Class 3 Lab 1
Designed for the student with little or no background in Spanish. Includes basic language patterns in order to give and receive information in different contexts. Lessons are organized to reflect the needs of travel professionals.

LANG 121
Intermediate Spanish
3 Credits Class 3 Lab 1
Vocabulary, intonation and the convention of the Spanish language. Emphasizes is on oral/aural skills, rudimentary writing and reading materials tailored to the needs of the Travel and Tourism student are introduced. Prerequisite: LANG 120.

LANG 130
French I
3 Credits Class 3 Lab 2
Foundation for understanding, speaking, reading and writing French.

LANG 131
French II
3 Credits Class 3 Lab 2
Foundation for understanding, speaking, reading and writing French.

LANG 132
French III
3 Credits Class 3 Lab 2
Foundation for understanding, speaking, reading and writing French.

LANG 133
French IV
3 Credits Class 3 Lab 2
Application of language usage in the hospitality industry. The student demonstrates language skills necessary to serve a French guest at a hotel or restaurant speaking only French.

LANG 140
German I
3 Credits Class 3 Lab 2
Foundation for understanding, speaking, reading and writing German.

LANG 141
German II
3 Credits Class 3 Lab 2
Foundation for understanding, speaking, reading and writing German.

LANG 142
German III
3 Credits Class 3 Lab 2
Foundation for understanding, speaking, reading and writing German.

LANG 143
German IV
3 Credits Class 3 Lab 2
Foundation for understanding, speaking, reading and writing German.

LANG 150
Italian I
3 Credits Class 3 Lab 2
Foundation for understanding, speaking, reading and writing Italian.

LANG 151
Italian II
3 Credits Class 3 Lab 2
Foundation for understanding, speaking, reading and writing Italian.

LANG 152
Italian III
3 Credits Class 3 Lab 2
Foundation for understanding, speaking, reading and writing Italian.

LANG 153
Italian IV
3 Credits Class 3 Lab 2
Foundation for understanding, speaking, reading and writing Italian.

LANG 290
Special Topics in Languages
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

LANG 291
Individual Studies in Languages
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

Marketing and Customer Service

MCS 100
Beginning Customer Service
0.5-3 Credits Class 0.5-3 Lab 0
Introduction to the role of customer service in an organization. A variety of issues are addressed and reinforced through classroom discussion and videos.

MCS 101
Intermediate Customer Service
0.5-3 Credits Class 0.5-3 Lab 0
Continuation of MCS 100. Additional topics surveyed include cycle of services and developing a service strategy.

MCS 102
Advanced Customer Service
0.5-3 Credits Class 0.5-3 Lab 0
Continuation of MCS 101 including additional study in developing service people and developing customer friendly systems.

MCS 110
Telephone Selling Skills
3 Credits Class 3 Lab 0
Introduction to the skills necessary to operate a telephone system used in telemarketing activities. Communication skills and inbound/outbound call handling is emphasized.

MCS 120
Customer Service Lab
3 Credits Class 0 Lab 9
Actual practical work experience in a real-life customer service center. The student surveys the five basic applications of customer service departments as well as prepares appropriate mailing and processes fulfillment pieces.

MCS 121
Advanced Customer Service Lab
3 Credits Class 0 Lab 9
Provides work experience in a customer service center. Students learn quality control and management skills while processing order fulfillment.

MCS 130
Principles of Customer Service
3 Credits Class 3 Lab 0
Introduction to the profession of customer service. A survey of job opportunities, customer service departments, marketing campaigns conducted by customer service representatives and service as a managed endeavor are covered.

MCS 140
Marketing and Sales Support
3 Credits Class 2 Lab 3
The relationship between the marketing of products and services and their subsequent sale. Includes the marketing mix, product life cycles, selling strategies, methods of distribution and the costs associated with both marketing and selling. Prerequisites: MCS 120 and MCS 130.

MCS 150
Distribution Management
3 Credits Class 2 Lab 3
Survey of distribution channels commonly found in the delivery of products and services. Actual catalog fulfillment is studied as well as a discussion of how the marketing campaign interacts and supports the distribution effort.

MCS 151
Distribution Center/Warehouse Lab
3 Credits Class 0 Lab 9
Receive, inventory and ship products and services. Includes forklift operation.

MCS 160
Direct Mail Marketing
3 Credits Class 2 Lab 3
Introduction to the concepts and principles for direct mail sales and marketing. Advertising and promotional materials preparation are surveyed.

MCS 200
Current Topics in Customer Service
0.25-3 Credits Class 0.25-3 Lab 0
Current issues of concern in the customer service profession. Includes identifying new techniques for handling customer issues and problems.

MCS 210
Successful Marketing Campaigns
3 Credits Class 2 Lab 3
Introduction to a number of successful marketing campaigns. Prerequisites: MCS 120, MCS 130.

MCS 220
Marketing Management
3 Credits Class 2 Lab 3
Basic principles involved in the development of a market research tool. Topics include test marketing procurement, direct marketing methods, product planning and target markets. Prerequisite: BUS 110.

MCS 240
Managing Customer Service Representatives
3 Credits Class 1 Lab 6
Hiring and training practices, motivating employees, comprehensive techniques, evaluation procedures and employee development will be discussed. Prerequisite: MCS 210.

MCS 290
Special Topics in Marketing and Customer Service
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

MCS 291
Marketing and Customer Service Individual Study
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

MCS 292
Field Experience in Marketing and Customer Service
1-4 Credits Class 0 Lab 12-48
On-the-job training in an accounting facility through special arrangement with an instructor.

MCS 294
Cooperative Work Experience in Marketing
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

MCS 295
Marketing and Customer Service Practicum Seminar
1-3 Credits Class 1-3 Lab 0
Discussion of job-related concerns and assistance with practicum.

MCS 296
Marketing and Customer Service Practicum
1-6 Credits Class 0 Lab 7-42
The student is placed in a work environment for a minimum amount of time to gain experience before graduation.

MCS 297
Observation Hour in Marketing and Customer Service
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

Materials

MATL 100
Materials Fundamentals
3 Credits Class 3 Lab 2
Structure and properties of materials, such as basic atomic, molecular, crystalline and amorphous structures for ceramics, metals and polymers. Methods of evaluating structures and properties of materials are demonstrated.

MATL 102
Metals I
3 Credits Class 3 Lab 2
Principles of metallurgy including effects of plastic deformation, recrystallization and grain growth on metals. The iron-iron carbide equilibrium diagram is studied to relate heat treating and alloying effects that produce specific properties. Prerequisite: MATL 100.

MATL 103
Polymers I
3 Credits Class 3 Lab 2
Thermoplastics and thermosetting polymers and methods used in manufacturing major industry resins. Properties and analysis of resins, rubbers, glasses, crystalline polymers and fibers are covered. Prerequisite: MATL 100.

MATL 110
Metals II
3 Credits Class 3 Lab 2
Nonferrous metals and alloys, processing and properties of aluminum, copper, lead, magnesium, nickel, tin, titanium, precious metals and their alloys. Prerequisite: MATL 102.

MATL 111
Polymers II
3 Credits Class 3 Lab 2
Fabrication of thermoplastic and thermoset resins, molding processes, casting, thermo-forming, coating, fabrication, welding and gluing are covered. Includes tooling and mold-making for these processes. Prerequisite: MATL 103.

MATL 200
Microscopy Analysis of Materials
3 Credits Class 2 Lab 4
Analysis of materials with optical and electron microscopes. Includes selection of the sample, handling and preparation for observation. Prerequisites: CER 103, MATL 110 and MATL 111.

MATL 205
Composite Compositions
3 Credits Class 3 Lab 2
Composite materials and the processing necessary to obtain design properties. Compatibility of materials and production processes are evaluated for technical and economic feasibility. Prerequisites: CER 103, MATL 110 and MATL 111.

MATL 210
Material Processing Systems
3 Credits Class 3 Lab 2
Processing requirements for traditional and composite materials. Advanced processes for economic achievement of improved properties. Topics include heat, pressure, atmosphere and chemical requirements to produce composite materials. Prerequisites: EGR 103 and MATL 201.

MATL 290
Special Topics in Materials
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

MATL 291
Individual Study in Materials
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

MATL 292
Field Experience in Materials
1-4 Credits Class 0 Lab 12-48
On-the-job training in a materials facility through special arrangement with an instructor.

MATL 294
Cooperative Work Experience in Materials
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must also be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

MATL 295
Materials Practicum Seminar
1-3 Credits Class 1-3 Lab 0
Discussion of job-related concerns and assistance with practicum.

MATL 296
Materials Practicum
1-6 Credits Class 0 Lab 7-42
The student is placed in a work environment for a minimum amount of time to gain experience before graduation.

MATL 297
Observation Hour in Materials
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

MATL 298
Materials Internship
3-6 Credits Class 0 Lab 20-40
On the job training in the workplace of a cooperating agency. Coordinated by an instructor.

MATL 299
Materials Internship Seminar
3 Credits Class 3 Lab 0
Discussion of internship experiences, objectives, and evaluation.

Mathematics

MATH 060
Basic Mathematics
3 Credits Class 3 Lab 1
Whole number operations, fractions and decimals. Emphasizes the application of these topics and order of operation.

MATH 061
Precollege Algebra
3 Credits Class 3 Lab 1
Metric and English systems of measurement, percentages, operations on signed numbers and evaluating expressions containing powers and/or roots.

MATH 150
Food Service Math
2 Credits Class 2 Lab 1
Basic arithmetic operations including the application of basic math operations to food service problems such as recipes, portioning and daily report completion.

MATH 201 PACE
College Algebra I
3 Credits Class 3 Lab 1
Metric and English conversions, algebraic operations, solution of simple equations and the mathematical construction and use of tables, charts and graphs.

MATH 202 PACE
Geometry and Trigonometry
3 Credits Class 3 Lab 1
Plane and solid geometry, right triangle trigonometry, laws of Sine and Cosine, and a basic unit on statistics. Prerequisite: MATH 201.

MATH 203 PACE
College Algebra II
3 Credits Class 3 Lab 1
Basic manipulations and operations involving algebraic terms, factoring and removal of monomial factors, algebraic fractions and equations involving fractions, exponents and radicals. Prerequisite: MATH 201.

MATH 204 PACE
College Algebra III
3 Credits Class 3 Lab 1
Quadratic equations, natural and common logarithms, graphing first, second, and third degree equations, solving simultaneous equations and the manipulations of vectors and their sums. Prerequisites: MATH 201, MATH 202 and MATH 203.

MATH 205
Introduction to Calculus
3 Credits Class 3 Lab 1
Limits and continuity, differentiation, rates of change, differentiation techniques, higher order derivatives, maximum/minimum problems, implicit differentiation, exponential and logarithmic functions, the antiderivative, the finite integral and various application problems. Prerequisites: MATH 201, MATH 202, MATH 203 and MATH 204.

MATH 290
Special Topics in Mathematics
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

MATH 291 PACE
Independent Study in Mathematics
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

Medical Assistant

MA 100
Basic Clinical Assistant Procedures
4 Credits Class 3 Lab 3
Fundamental clinical assisting procedures in the family practice medical office. Emphasizes procedures employed in the general patient examination including medical asepsis, vital signs, positioning and draping, measuring height and weight, obtaining patient symptoms, charting, health history, patient preparation for and assisting with the physical examination, distance and near visual acuity testing, color vision testing, eye and ear instillations and irrigations and obtaining specimens for laboratory analysis.

MA 102
Medical Office Procedures I
2 Credits Class 2 Lab 2
Administrative or office duties of a medical assistant in a physician's office. Includes answering, screening and placing telephone calls; scheduling patient appointments and hospital admissions; handling patient information brochures; purchasing equipment and supplies, paying invoices, inventory control, storing supplies and drugs and equipment maintenance; establishing priorities for work and office procedures manual.

MA 110
Family Practice Clinical Assistant Procedures
4 Credits Class 3 Lab 3
Intermediate level clinical procedures in the family practice medical office. Emphasizes tissue healing and surgical sepsis including the application of heat and cold, bandaging, cast application and removal, crutch walking, sterilization and disinfection, minor office surgery and urinalysis. Prerequisite: MA 100.

MA 112
Medical Law, Confidentiality and Ethics
3 Credits Class 3 Lab 0
Medical ethics and law in the medical office setting. Analyzes medical office situations to determine ethical and legal status. Includes a history of medicine, the Medical Practice Acts, the physician-patient relationship, confidentiality, implied, verbal and written consent, malpractice, creating and terminating a contract and professional law liability. Identifies reports required by law and emphasizes professionalism in the medical office.

MA 113
Nutrition for Medical Assistants
3 Credits Class 3 Lab 1
Introduction to the science of nutrition. Prepares medical assistants in the application of nutritional concepts to patient care. Emphasizes the function, food sources and dietary deficiencies of nutrients. Includes the process of digestion; menu planning for childhood and adolescence, the elderly and the pregnant patient; food poisoning, food preservation and additives; dental care; modified diet therapy for diabetes mellitus and cardiovascular and gastrointestinal disorders.

MA 120
Obstetrics, Gynecological, Pediatric Clinical Assisting Procedures
4 Credits Class 3 Lab 3
Presentation of theory and techniques required by the medical assistant to perform gynecologic, obstetric and pediatric examining room techniques. Includes the menstrual cycle and gynecologic examination, instructing the patient in methods of birth control, signs and symptoms of pregnancy, the prenatal examination, problems of pregnancy, growth and development of the embryo and fetus, labor and delivery, care of the newborn, and the pediatric examination. Prerequisite: MA 110.

MA 121
Medical Insurance and Coding
1 Credit Class 1 Lab 2
Insurance and coding for the medical office. Emphasis on Blue Cross and Blue Shield, commercial carriers of government plans, HMO's and PPO's. Purpose of coding systems, translating procedures and services into CPT codes, translating diagnoses into ICD-9-CM codes, problems caused by inaccurate procedure and diagnoses codes, the relationship between procedure and diagnosis codes and a knowledge of other procedure/diagnosis coding systems.

MA 122
Medical Office Procedures II
2 Credits Class 2 Lab 2
Filing systems, procedures, equipment and supplies, retention schedules, patient records, types of health insurance coverage, initiating and updating records, insurance terminology, handling insurance claims, coding for professional services, provisions of Blue Cross, Blue Shield, Medicare, Medicaid, CHAMPUS and Workman's Compensation and typing insurance forms. Prerequisites: SEC 100 and MA 102.

MA 200
Advanced Clinical Assisting Procedures
5 Credits Class 4 Lab 3
Procedures employed in administering patient therapy and diagnostic testing, administration of medications, performing venipunctures, running electrocardiograms, administering ultrasound treatments, assisting with sigmoidoscopy and patient preparation and positioning for x-rays. Prerequisite: MA 120.

MA 202
Pharmacology for Medical Assistants
4 Credits Class 4 Lab 0
Pharmacology principles relating to the medical office. Emphasizes correlation of drug therapy with pathologic conditions, patient education regarding medications and obtaining competency in researching drugs in a drug reference. The use, action, side effects, implications, contraindications and route of drugs commonly administered, dispensed and prescribed in the medical office including antihistamines, immunizing agents, antibiotics, cardiovascular drugs, digestive drugs and drugs affecting the urinary, nervous and respiratory systems. Prerequisite: NT 104.

MA 203
Medical Assistant Externship I
4 Credits Class 0 Lab 13
Directed practicum in a medical office, clinic or comprehensive health care facility where the student spends two days each week performing administrative and clinical skills under the supervision of a preceptor. A weekly externship seminar is included to discuss experiences. Prerequisites: HC 100, HC 111, MA 102, MA 112, MA 120, MA 121, MA 122, NT 104, SEC 101.

MA 204
Medical Assistant Externship II
4 Credits Class 0 Lab 13
Continuation of MA 203. Prerequisites: HC 106, HC 107, MA 200, MA 202, MA 203.

MA 205
Medical Assistant Externship III
4 Credits Class 0 Lab 13
Directed practicum in a medical office, clinic, or comprehensive health care facility to provide direct patient contact; apply clinical and administrative theory to practical situations; perform clinical and administrative procedures in a medical office; and gain insight into the medical assistant role in the health care team. Two days each week are spent in a general or specialty practice office performing administrative and clinical skills under the supervision of a preceptor. Prerequisite: MA 204

MA 220
Medical Laboratory Procedures
5 Credits Class 4 Lab 3
Theory and techniques required to perform laboratory tests in the medical office. Emphasizes patient preparation, completion of laboratory forms, collection of specimens for testing in the medical office or for transporting to an outside laboratory, performing laboratory tests and reporting results, identifying abnormal results, quality control and laboratory safety. Clinical procedures include venipuncture, obtaining a capillary blood specimen, blood banking, hematologic laboratory tests, blood chemistry tests, microbiologic laboratory tests and urinalysis. Prerequisite: MA 200.

MA 221
Medical Management Computerization
4 Credits Class 3 Lab 3
Computer concepts and applications for the medical office. Emphasizes utilization of microcomputers in the medical office including the data processing cycle, components of the computer system, selection of hardware and software, secondary storage devices, the disk operating system (DOS) and medical office management applications.

MA 222
Financial Records and Reports
3 Credits Class 2 Lab 4
Financial and business records in a physician's office. Methods of billing, extending credit, installment payments, collection methods and problems, laws pertaining to credit and collection, banking terminology and services, checking accounts, accounting systems, daily service records, combined cash journals, patients' and general ledgers, disbursement records, petty cash records, financial statements, payroll taxes and deductions, tax returns, employee earning records and payroll registers are covered. Prerequisite: ACC 100.

MA 223
Computer Applications in Medical Assisting
3 Credits Class 2 Lab 3
Medical office computer applications. Functions performed by medical office management application programs which include file maintenance, patient registration, posting transactions, appointments, patient billing, insurance billing and reports. Prerequisite: MA 221.

MA 239
Principles and Techniques of Electrocardiography
1 Credit Class 0 Lab 2
Theory and techniques of electrocardiography including patient preparation and the running, care and maintenance of the ECG.

MA 290
Special Topics in Medical Assistant
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

MA 291
Individual Study in Medical Assistant
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

MA 292
Field Experience in Medical Assistant
1-4 Credits Class 0 Lab 12-48
On-the-job training in a medical assistance facility through special arrangement with an instructor.

MA 293
Medical Assistant Directed Practice
1-8 Credits Class 0 Lab 5-40
Directed practice instruction in the performance of a particular function from an assigned instructor, and then observed and critiqued by the instructor in a repeat performance of that function.

MA 294
Medical Assistant Cooperative Work Experience
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

MA 295
Medical Assistant Practicum Seminar
1-3 Credits Class 1-3 Lab 0
Discussion of job-related concerns and assistance with practicum.

MA 296
Practicum in Medical Assistant
1-6 Credits Class 0 Lab 7-42
The student is placed in a work environment for a minimum amount of time to gain experience before graduation.

MA 297
Medical Assistant Observation Hour
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

MA 298
Medical Assistant Internship
3-6 Credits Class 0 Lab 20-40
On the job training in the workplace of a cooperating agency. Coordinated by an instructor.

MA 299
Medical Assistant Internship Seminar
3 Credits Class 3 Lab 0
Discussion of internship experiences, objectives, and evaluation.

Microcomputers

MICS 101
Computer Literacy
1 Credit Class 1 Lab 1
Taught on the Apple, this course familiarizes the novice computer user with the operation of a microcomputer through the use of a word processing package, low and high resolution graphics, and BASIC programs.

MICS 110
Micro Operation and BASIC Programming
3 Credits Class 2 Lab 4
Introduction to the disk operating system (DOS) on the personal computer with the use of internal and external operating system commands. Create, sort, manage and manipulate data files as well as program in the language of BASIC. Includes program construction, debugging, sequential file creating and accessing and printing via a network.

MICS 112
Introduction to DOS
1 Credit Class 1 Lab 0
Introduction to IBM compatible machines using the disk operating system (DOS). Use of internal and external operating system commands to create, manage and manipulate files.

MICS 121
MicroSoft Works for Windows
3 Credits Class 2 Lab 3
Introduction to the integrated software package, MicroSoft Works using IBM compatible machines. The student designs and manipulates multiple files to apply the major functions of the word processing, data base and spreadsheet modules of this package.

MICS 121A
MicroSoft Works DOS (Word Processing)
1 Credit Class 1 Lab 1
Taught on IBM compatible machines, this course provides instruction on the word processing component of the software package MicroSoft Works.

MICS 121B
MicroSoft Works DOS (Database)
1 Credit Class 1 Lab 1
Use of the database component of the software package MicroSoft Works.

MICS 121C
MicroSoft Works DOS (Spreadsheet)
1 Credit Class 1 Lab 1
Use of spreadsheet component of the software package MicroSoft Works.

MICS 122
MicroSoft Works on the MAC
3 Credits Class 2 Lab 3
Introduction to Macintosh computers using the integrated software package MicroSoft Works. The student designs and manipulates multiple files to apply the major functions of the word processing, data base and spreadsheet modules of this package.

MICS 141
Lotus 1-2-3
1 Credit Class 1 Lab 1
Introduction to the spreadsheet and database capabilities of Lotus 1-2-3 (V3.0), the most popular spreadsheet package on the market today. Using IBM compatible machines, the student designs and manipulates multiple spreadsheet and database files to apply the major functions of this software package.

MICS 142
dBase IV
1 Credit Class 1 Lab 1
Introduction to the popular and powerful database management software, dBase IV, using IBM compatible machines. Includes creating database files, designing forms, using queries and designing reports and labels.

MICS 144
WordPerfect for Windows
1 Credit Class 1 Lab 1
Taught on IBM compatible machines, this course introduces the wordprocessing software WordPerfect for Windows. Includes program enhancements such as creating tables, Spell Checker, OLE (object, linking, embedding), and spreadsheet links.

MICS 145
Introduction to Windows
0.5-1 Credits Class 0.5-1 Lab 0
Introductory, hands-on seminar to manage, update, and customize using Windows program. Participants will learn the basics of using Windows, work with applications, manage files and directories, customize the windows, use the word processing write and notepad programs, create graphics, and use other Windows accessories.

MICS 200
Apple Software Packages
3 Credits Class 3 Lab 2
Introduction to the integrated software package AppleWorks. The student designs and manipulates multiple files to apply the major functions of the word processing, data base and spreadsheet modules of this package.

MICS 200A
Apple Software Packages: Word Processing
1 Credit Class 1 Lab 1
Introduction to the word processing component of the integrated software package, AppleWorks. The student learns to create, arrange, customize, print and maintain documents.

MICS 200B
Apple Software Packages: Database
1 Credit Class 1 Lab 1
Introduction to the database component of the integrated software package, AppleWorks. Concepts of a database file through creation and manipulation and production of various reports from database files. Includes making structural changes to an existing database, advanced record selection and advanced report writing.

MICS 200C
Apple Software Packages: Spreadsheet
1 Credit Class 1 Lab 1
Introduction to the spreadsheet component of the integrated software package, AppleWorks. The student learns to create, manipulate and print an electronic spreadsheet. Advance topics include IF statements and table look-up functions.

MICS 201
Desktop Publishing: IBM
2 Credits Class 2 Lab 2
Computer-aided page layout and publishing for writing, assembling and designing publications such as business reports, newsletters, trade journals and brochures, by combining text and graphics. Introduces the student to desktop publishing terms and techniques and use of a popular desktop publishing software package in order to create various types of publications.

MICS 201A
Introduction to Desktop Publishing: IBM
1 Credit Class 1 Lab 1
Basic desktop publishing terms and techniques. Students will learn to create simple publications such as letterhead, flyers and brochures.

MICS 201B
Advanced Desktop Publishing: IBM
1 Credit Class 1 Lab 1
Advanced desktop publishing techniques. Students will create more complex publications such as multiple page newsletters, forms and brochures, learn to import graphics and define and use styles and templates. Prerequisite: MICS 201A.

MICS 290
Special Topics in Microcomputers
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

MICS 291
Individual Study in Microcomputers
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

Natural Resources

NR 100
Astronomy
2 Credits Class 1 Lab 3
The science of the celestial bodies and their magnitudes, motions, and constitution.

NR 110
Introduction to Natural Resources
3 Credits Class 2 Lab 3
Introduction to current world situations regarding natural resource supply, use, competition and conservation.

NR 111
Dendrology
3 Credits Class 2 Lab 3
Identification of woody plants indigenous to Ohio including identifying trees, shrubs and vines through the use of dichotomous keys, site characteristics and physical appearance.

NR 112
Quest Recreation
3 Credits Class 2 Lab 3
Outdoor adventure pursuits are used to introduce problem solving techniques, team work process, initiative, innovation, personal success and leadership skills. Students take on all facets of planning. Adventures may include canoeing, caving, camping and swimming. Initiative games are used to simulate and demonstrate group interaction, teamwork, problem solving and ideation.

NR 113
How to Get Government Jobs
1 Credit Class 1 Lab 0
How to accurately complete U.S. government employee application form 171, with related forms, and National Park Service seasonal employment application form 10-139, with related forms. Includes basic principles for filling out various state and metropolitan park employment applications.

NR 114
Horsemanship I: Beginning Riding
3 Credits Class 2 Lab 3
Basics of proper horse care and horsemanship. How to safely handle the horse and properly feed, groom, saddle and bridle the working trail horse. Riding instruction focuses on proper mounting and safe riding skills in a trail situation. Prerequisite: Must be within our weight limits and physically able to meet the requirements of the class.

NR 115
Horseshoeing I
3 Credits Class 2 Lab 3
Skills necessary to replace a lost shoe on the back country trail. Lecture covers basic horse leg anatomy, horseshoes, nails and lameness problems. Laboratory practice in shaping horseshoes cold and shoeing horses.

NR 116
Horse Pack and Tack Repair
3 Credits Class 2 Lab 3
Basic skills in packing horses and mules and basic repair of harness and tack. Prerequisite: NR 114.

NR 117
Horse Program Management
2 Credits Class 1 Lab 3
Introduction to the management of horse programs. Operation of breeding and training programs and management of recreational riding facilities.

NR 118
Colt Training I
3 Credits Class 1 Lab 6
Methods used to train trail and pack horses. The students starts with young, green horses and cover from halter breaking to round pen training. The student teaches horses how to load into trailers, how to accept bits and saddles and how to perform as mountain trail horses. Prerequisites: NR 114, NR 115, NR 116, NR 134 and NR 135.

NR 119
Tropical Field Biology
2 Credits Class 1 Lab 3
Introduction to tropical ecosystems. Includes a geologic history of at least one tropical country, major tree species, local birds and other tropical animals including reptiles, amphibians and insects.

NR 120
Botany
3 Credits Class 2 Lab 3
Aspects of the plant kingdom including botanical history, taxonomy, mitosis, meiosis, anatomy, cytology and physiology.

NR 121
Zoology
3 Credits Class 2 Lab 3
Survey of the animal kingdom with emphasis on taxonomy, morphology and systems in the various phyla of animals, including man.

NR 123
Surveying and Mapping I
3 Credits Class 2 Lab 3
Plane surveying procedures and applications for distance, direction and elevation measurements. Use and care of surveying instruments including the transit, hand level and engineering level. History, basic applied mathematics, units of measurement and the public land survey system is explored. Basic survey mapping techniques are introduced.

NR 125
Forest Soils
3 Credits Class 2 Lab 3
Development, interpretation and mapping of forest soils. Techniques in analyzing physical and chemical properties of soil. Includes problem soils and the impact of forestry practices on soil conditions.

NR 126
Woods Safety
1 Credit Class 1 Lab 0
Wood safety and associated organizations and regulations.

NR 127
Introduction to Compost Technology
3 Credits Class 1 Lab 6
Processes required to control biological decomposition and conversion of solid organic materials into compost. Natural microorganisms used to break down the complex organic compounds into simpler substances are studied. Methods used to recover organic materials for recycling to the environment as compost are examined.

NR 131
Environmental Chemistry
3 Credits Class 2 Lab 3
Inorganic, organic and environmental aspects of fundamental chemical principles.

NR 134
Horsemanship II: Intermediate Riding
3 Credits Class 2 Lab 3
Development of confidence and skills needed to handle and care for the working trail horse. Prerequisite: NR 114.

NR 135
Horsemanship III: Advanced Trail Riding
3 Credits Class 2 Lab 3
Practice in the full complement of skills needed to handle and ride the working back country trail horse. Lab hours polish riding skills needed to safely handle the horse in the most difficult trail situations in this region. Major aspects of handling trail horses are covered including loading, hauling and caring for horses during transport. Prerequisites: NR 114 and NR 134.

NR 150
Wildfire Control/Recreation Areas
2 Credits Class 2 Lab 0
Includes the Basic Fire Fighter S-130 course and the Introduction to Fire Behavior S-190 course developed by the National Wildfire Coordinating Group. The successful participant is eligible for the National Interagency Fire Qualifications System Red Card. Course S-130 offers the required training for all fire line workers. Covers basic skills required by new wildfire fighters; fire organization, use of safety equipment, size-up, line construction, use and maintenance of tools and basic woodsmen skills. Course S-190 is a prerequisite for all wildfire fighters.

NR 151
Leathercraft
3 Credits Class 1 Lab 6
Leathercraft and leather repair related to horse tack including tools used in repairing and constructing tack items such as bridles, halters and related equipment.

NR 152
Saddle Making I
3 Credits Class 1 Lab 6
Provides skills needed to construct or repair saddles. Prerequisite: NR 151.

NR 153
Saddle Making II
3 Credits Class 1 Lab 6
Refines leather-working skills developed in NR 152. Prerequisites: NR 151 and NR 152.

NR 154
Basic River Paddling
2 Credits Class 1 Lab 3
Introduction to river paddling in canoes and kayaks. Includes river reading, strodes and techniques specific to fast-moving water. On-the-water activities are maximized on a whitewater river. Prerequisite: REC 113 or NR 180.

NR 155
River Rescue for Paddlers
1 Credit Class 1 Lab 2
Designed for recreational paddlers or those teaching recreational paddlers. Each student will practice skills on mock river accidents such as pinning and entrapment. Concentration on self-rescue, proper use of throw bags, stabilization, snag line techniques and two drag systems on moving water. Prerequisites: REC 113 and NR 154.

NR 156
Fly Fishing
1 Credit Class 1 Lab 1
Basics of fishing with a fly rod. Equipment, casting, fly-tying and fishing are introduced.

NR 163
Wildland Fire Standards for Survival
0.5 Credit Class .5 Lab 0
Designed by an interagency work group sponsored by the National Wildfire Coordinating Group. Review of fire related fatalities and firefighter safety training materials. Emphasizes on avoiding situations and conditions which have resulted in fire shelter deployments, serious injuries and fatalities. Prerequisite: NR 150.

NR 168
Horseback Riding for Non-Majors
1 Credit Class 0 Lab 3
Under the supervision of a lead instructor, the course will be taught by student instructors enrolled in the teaching horseback riding course. Introduces proper horse care and horsemanship. Develops safe riding and horse handling skills. Designed to help individuals overcome fear or apprehension of horses. Prerequisite: Instructor permission.

NR 169
Natural Resources Expo I
0.5 Credit Class 0 Lab 1.5
Operating a natural resources exposition with an emphasis on exposition logistics, physical set-up through development of basic work skills and public relations.

NR 170
Natural Resources Expo II
0.5 Credit Class 0 Lab 1.5
Conducting a natural resource exposition. Emphasis on exposition grounds planning, layout, maintenance and restoration of grounds following the exposition.

NR 171
Natural Areas Management
2 Credits Class 2 Lab 2
Basic philosophical need for natural areas and their management with federal, state and nongovernment organization policies being considered. Includes principles of natural areas management, policies and effects of planning, the role of fire in wilderness areas, site management and visitor utilization and access.

NR 172
Geography
3 Credits Class 2 Lab 3
Examination of the economic and geographic factors that determine natural resource distribution, availability and utilization. Examination of the earth's surface region by region in order to determine resource availability, transportation concerns and environmental compatibility of resource use.

NR 173
Surveying and Mapping II
3 Credits Class 2 Lab 3
Surveying operations used in providing horizontal and vertical control for mapping projects. Develops horizontal traversing and trigonometric leveling skills. Appropriate instrument procedures are implemented. Coordinate geometry is used to determine locations of survey control points and data analysis. Prerequisite: NR 123.

NR 174
Adventure Programming
1 Credit Class 1 Lab 1
Value of recreational opportunities for special populations and adaptations necessary to ensure safe and therapeutic delivery of such services. Familiarization with various handicapping conditions, laws and regional resources or barriers available to these populations. The student observes, plans and implements supervised activities with at least two different special populations.

NR 175
Equipment Operations
1-3 Credits Class 0 Lab 3-9
Knowledge, skills and safe working techniques related to heavy equipment operation. Practice in maintenance, operation and service for each type of equipment.

NR 175A
Heavy Bulldozer Operation
1-3 Credits Class 0 Lab 3-9
Techniques and safe work practices involved in heavy bulldozer operation. Proper maintenance, operation, service and safety. Includes actual machine operation.

NR 175B
Light Bulldozer Operation
1-3 Credits Class 0 Lab 3-9
Techniques and safe work practices involved in light bulldozer operation. Proper service, maintenance, operation and safety. Includes actual machine operation.

NR 175C
Backhoe Operations
1-3 Credits Class 0 Lab 3-9
Techniques and safe work practices in backhoe operation. Proper service, maintenance, operation and safety. Includes actual machine operation.

NR 175D
Trenching and Ditching Machine Operation
1-3 Credits Class 0 Lab 3-9
Techniques and safe work practices in trenching and ditching machine operation. Proper service, maintenance, operation and safety. Includes actual machine operation.

NR 175E
Multiple Axle Truck Operation
1-3 Credits Class 0 Lab 3-9
Techniques and safe work practices in multiple axle truck operation. Proper service, maintenance, operation and safety. Includes actual machine operation.

NR 175F
Frontend Loader Operation
1-3 Credits Class 0 Lab 3-9
Various techniques and safe work practices in frontend loader operation. Provides hands-on experience in proper service, maintenance, operation and safety. Includes actual machine operation.

NR 175G
Drag Pan/Tractor Operation
1-3 Credits Class 0 Lab 3-9
Techniques and safe work practices in drag pan/tractor operation. Proper service, maintenance, operation and safety. Includes actual machine operation.

NR 175H
Commercial Drivers License Preparation
1-3 Credits Class 0 Lab 3-9
Prepares the student to sit for both the written and in-vehicle portions of the State of Ohio Commercial Driver's License (CDL) examination.

NR 175J
Track Hoe Operations
1-3 Credits Class 0 Lab 3-9
Techniques and safe work practices in track hoe operations. Proper service, maintenance, operation and safety. Includes actual machine operation.

NR 175K
Forklift Operations
1-3 Credits Class 0 Lab 3-9
Safe operation of a forklift and diagnosis of minor maintenance problems.

NR 176
Wetlands Management
3 Credits Class 2 Lab 3
Dynamics of wetland habitats, classification and management techniques. Legal ramifications and definitions will be covered.

NR 177
Open Water Diver (SCUBA)
3 Credits Class 2 Lab 3
Meets or exceeds standards set by the Recreational Scuba Training council (RSCT), Professional Diving Instructors Corporation (PDIC), and the National Park Service (NPS) for Open Water Diver certification and NPS-4 Diver In Training (DIT) status. Topics include diver physics, equipment usage, safety rules and procedures, first aid as related to the diver and the aquatic environment. Pool sessions include water skills necessary to using Self-Contained Underwater Breathing Apparatus (SCUBA). After required classroom, pool hours and competencies have been met open water diving will be conducted.

NR 178
Ropes Course Certification
1 Credit Class 1 Lab 1
Provides experience to act as a high ropes course instructor assistant and as a primary instructor for low ropes and initiatives. Successful participants will need to work with the lead instructor for at least 20 contact hours before final certification. Facilitation skills will be practiced and evaluated for successful completion of the course. Prerequisite: NR 174.

NR 180
Fundamentals of Kayaking
1 Credit Class 1 Lab 2
Selection, use and maintenance of white-water kayaks. Includes kayak control on flat and moving water.

NR 181
Advanced Whitewater Paddling
2 Credits Class 1 Lab 3
Continued development of paddling skills with the addition of new skills including surfing and turns. Includes reading river features, scouting rapids, set safety and executing rescues of self or others. Prerequisite: NR 154.

NR 182
Advanced Open Water Diver (Scuba)
2 Credits Class 1 Lab 3
Meets or exceeds the standards set by the Recreational Scuba Training Council (RSTC) and the Professional Diving Instructors Training Corporation (PDIC). After the required classroom and student competencies have been met the participant will be afforded the opportunity to complete the minimum 5 dives that are required for certification and evaluation purposes. Prerequisite: NR 177.

NR 185
Resource Area Planning
3 Credits Class 3 Lab 2
Master planning for natural/cultural resource management areas. Includes land acquisition, boundaries, resource inventories, planning of accessways, day use functions, concessions, interpretive system and resource maintenance and management strategies.

NR 190
Compost Safety and Marketing Standards
3 Credits Class 2 Lab 3
Defines and interprets compost safety and marketing standards at the national, state and local levels.

NR 191
Compost Stabilization and Curing
3 Credits Class 2 Lab 3
Principles, processes and controls needed for effective stabilization and curing of compost in controlled environments.

NR 192
Compost High Rate Processing
3 Credits Class 2 Lab 3
Principles, processes and controls to accelerate the forces of nature and science for composting at a predictable, high-rate.

NR 193
Compost Process Operations and Control
3 Credits Class 2 Lab 3
Principles, processes and controls to bring forces of nature and science together for composting.

NR 210
Intermediate Wildland Fire Suppression
0.75 Credit Class 0.75 Lab 0.75
Suppression methods used on wildland fires. Includes hand tools and line construction, types of attack methods as well as mopping-up techniques. Introduces the use of class "A" foam, its advantages and disadvantages and how it works in the wildlife arena. Prerequisite: NR 150.

NR 215
Vehicle Operations for Natural Resources Officers
1 Credit Class 1 Lab 1
Knowledge, skills and attitudes that promote optimum and efficient use of patrol vehicles in recreational areas. Emphasizes defensive driving, skid control and potential liability of negligent operation of patrol vehicles. Terminal performance objectives are established by the U.S. Department of the Interior.

NR 216
Advanced Packing and Wildlife Skills
4 Credits Class 0 Lab 12
Nine days of intensive training as a wilderness trail maintenance crew member for the U.S. Forest Service. Students transport their horse and pack mules to a western wilderness area and spend six days packing into the wilderness where they practice skills required of wilderness rangers. The course is designed as a cooperative practicum with the National Park Service and the U.S. Forest Service. Prerequisites: NR 114, NR 116 and NR 134.

NR 217
Advanced Packing II
4 Credits Class 0 Lab 12
Students will function as work crew supervisors and lead packers during a seven day extended working pack trip into a western wilderness area. Students will be responsible for the care of horses in travel and at the trail head. Prerequisites: NR 114, NR 116, NR 115, NR 134 , and NR 216.

NR 222
Reclamation
3 Credits Class 2 Lab 3
Accepted and prescribed techniques of land reclamation. Regulations, prereclamation planning, measuring impacted areas, water management and re-vegetation.

NR 223
Campus Park Management
2 Credits Class 1 Lab 7
Daily operation of on-site and recreational areas including planning, budgeting, staffing and assessment. Prerequisites: REC 110, REC 120 and REC 130.

NR 224
Forestry Employment Seminar
2 Credits Class 2 Lab 0
Development of resume and cover letter directed toward a career in the natural resources field. Assists in the determination of short and long range career goals.

NR 225
Natural Resources Administration
1 Credit Class 1 Lab 0
Institutional dimensions of recreation and park management. Includes the making and execution of laws pertaining to natural resources, organization, budgeting, governmental structure and liability in recreation.

NR 226
Production Analysis
3 Credits Class 2 Lab 3
Time study and cost analysis techniques in timber harvesting.

NR 230
Project WILD and Learning Tree
3 Credits Class 3 Lab 0
Four-day program designed for educators including youth leaders, camp staffs, elementary and secondary teachers and college students preparing to work with young people in natural resources conservation. Participants receive manuals containing over 140 activities useful in the classroom or out-of-doors that have proven adaptable in rural and urban settings.

NR 230A
Project WILD
1 Credit Class 1 Lab 1
Introduction to Project WILD outlining its financial support by the American Forest Institute and its subsequent development by the Western Regional Environmental Education Council. The student earns a copy of the elementary guide which contains 81 wildlife-related activities.

NR 230B
Project Learning Tree
1 Credit Class 1 Lab 0
Introduction to Project Learning Tree by outlining its financial support by the American Forest Institute and its subsequent development by the Western Regional Environmental Education Council. The student earns a copy of the elementary guide which contains 89 forest-related activities.

NR 230C
Night Hikes
1 Credit Class 1 Lab 0
Preparation for leading camp, nature center or park night hikes. Discussions, field hikes and hands-on activities allow exploration of the best ways to cope with situations in a unique learning environment.

NR 240
Entomology
2 Credits Class 1 Lab 3
Taxonomy and ecology of the common insect orders and families including collection, preservation and display, exploration of insect environments, life histories, population dynamics and impacts on human culture.

NR 241
Ohio Birds of Prey
1 Credit Class 1 Lab 1
Identification, habitat, prey, general breeding biology, aging and sexing techniques, basic census methods and the distribution of selected species. Lab work includes an auditory census of owls and field identification of local raptors using field marks, silhouettes, flight patterns and pellet analysis.

NR 242
Law, Philosophy and Objectives for Natural Resources Officers
2 Credits Class 2 Lab 0
Organization and function of various federal law enforcement agencies with specific focus on law enforcement in the National Park Service. Applicable sections of Title 36 of the Code of Federal Regulations are examined. Emphasizes NPS authority, jurisdiction, philosophy, objectives, policy and guidelines.

NR 243
Law Problems and Recognition
1 Credit Class 1 Lab 0
Identification, logical locations, types of concealment and safety measures for handling bombs and explosives. Use of chemical agents relative to law enforcement, first aid and reporting procedures. Basic orientation to dangerous drug classification, drug abuse symptoms and identification.

NR 244
Vehicular Accident Investigation
1 Credit Class 1 Lab 1
Tools, techniques and uniform terminology used by the traffic accident investigator. Develops skill in measuring, drawing and recording the scene in both vehicle accidents and crime scenes.

NR 245
Public Relations for Natural Resources Officers
1 Credit Class 1 Lab 1
Proper courtroom demeanor and testifying techniques. The importance of positive public image for uniformed law officers, the need for maintaining a high ethical code, interpersonal contacts and the responsibility, moral obligation and legal authority in dealing with the public. Includes effective questioning techniques, legal concepts and limitations protecting rights of the citizen.

NR 247
Defensive Tactics
2 Credits Class 1 Lab 3
Defensive tactics used against knives, clubs and other weapons. Includes kicks, punches, grabs, various control techniques, hand-cuffing procedures and body searching.

NR 249
Western Game Animals
3 Credits Class 3 Lab 0
The life history, habitats and distribution of western North American game birds and mammals. A few non-game mammals are included to represent that segment of the western fauna.

NR 250
Backpacking and Survival
3 Credits Class 2 Lab 3
Backpacking techniques including selection of equipment, hiking skills, selection of food, cooking skills, camping techniques, wilderness travel and wilderness emergencies. Includes training in survival skills such as fire building, shelter construction, finding water and food and the construction of survival kits and tools.

NR 251
Ecology and Management of Waterfowl
3 Credits Class 3 Lab 0
Habitat requirements, management techniques, ranges and migration patterns, management history and problems, diseases and identification of the waterfowl resources of North America.

NR 252
Herpetology
2 Credits Class 1 Lab 3
Introduction to reptiles and amphibians with emphasis on Ohio species. Techniques of capturing, handling and maintaining species in captivity. Ecology, behavior and evolution of the major groups.

NR 254
Nature Drawing
1 Credit Class 1 Lab 2
Techniques of illustration are presented with emphasis on pen and ink. A number of completed plates are required, which are critiqued and graded on a one-to-one basis with the student.

NR 256
Pesticide Use in Natural Resources
2 Credits Class 1 Lab 3
Role of pesticides in our economy and environment. Covers safe and practical use of pesticides in the cultural forestry operation.

NR 257
Night Field Biology
1 Credit Class 1 Lab 2
Introduction to animals often heard but seldom seen at night including frogs, toads, salamanders, night birds and aquatic insects. Introduction to spring wildflowers and wild foods.

NR 258
Winter Camping and Survival
3 Credits Class 3 Lab 1
Skills for winter camping and recognizing survival situations. Includes information on clothing, equipment, survival kits and the psychology of survival.

NR 259
Outdoor Programs
3 Credits Class 3 Lab 0
Development and preparation of interpretive programs using environmental and outdoor educational activities successful on formal school sites and non-formal learning centers including nature centers, parks and camps.

NR 260
Taxidermy
2 Credits Class 2 Lab 1
Techniques in the art of taxidermy. Stresses methods which produce mounted specimens that are exact replicas of the living animals. The course is intended for those who have had no previous training. Emphasis will be placed on birds and tanning.

NR 261
Advanced Taxidermy
2 Credits Class 2 Lab 1
Taxidermy of big game heads. Methods of tanning capes, use of liquid tan and dry preservatives, painting and habitats and exhibit construction are included. Prerequisite: NR 260.

NR 262
Sailing in Protected Waters
2 Credits Class 1 Lab 3
Introduction to sailing, nomenclature, nautical terms and the rules of the road. Emphasizes practical, on-the-water exercises in the Bahamas. Includes rigging, sailing, man overboard and capsizing rescue techniques. Exploration of islands, both uninhabited and inhabited, and observation of environmental and social conditions.

NR 263
Marine Ecology
1 Credit Class 1 Lab 1
On-site field study of Andros Island, Bahamas. Includes an orientation to the area including reef areas, land surfaces, vegetation patterns and population patterns. Introduces the geological, biological and human topics from a historical perspective; includes an examination of lime muds, oolites and coral reefs; compares and contrasts invertebrates found in different areas and their relationship with the particular environment; covers an examination of the physical setting, biological growth, food pyramid, food web and an examination of the interdependence of different organisms; and involves identification of man's relationship with the coral reef.

NR 264
Recreation Programming
3 Credits Class 3 Lab 1
Planning leisure time activities for the general public. Responding to human needs, recognizing physical capabilities and limitations of individuals or groups and identifying appropriate activities for special populations.

NR 265
Basic Elements of Archery
1 Credit Class 0 Lab 3
Use of archery equipment including parts of a bow and arrow, use of archery accessories, difficult shooting techniques and safety procedures.

NR 266
Balanced Bow Hunting
1 Credit Class 1 Lab 2
Fundamentals of bow hunting, responsible attitudes and acceptable behavior toward people, wildlife and the environment are explored. Equipment and harvesting techniques are examined. Stresses safety and the successful participant earns basic course certification from the National Bow Hunters Education Foundation.
Prerequisites: NR 265, NR 267 and instructor permission.

NR 267
Intermediate Archery
1 Credit Class 1 Lab 2
Shooting techniques of the compound bow and application to a teaching situation. Emphasizes self-analysis and peer evaluation through direct observation and video. Teaching basic fundamentals of archery to children and adults using the Anderson Method is covered. Also includes forms of archery currently enjoyed by the recreating public, such as field archery, range archery, archery golf and indoor archery. Prerequisite: NR 265.

NR 268
Sailing
2 Credits Class 1 Lab 3
Beginner's course in the theory of sailing, nomenclature, nautical terms and the rules of the road. Practical exercises at an inland lake cover rigging, sailing, man overboard and capsizing techniques. The single masted training craft used in this course are 12-16 feet in length and are designed for recreational sailing on inland waters.

NR 269
Conservation Law for Natural Resources Officers
3 Credits Class 3 Lab 0
Focus on constitutional law. Various resource/visitor protection authority and the statute foundation for that authority are examined. Major Supreme Court decisions, as well as recent court decisions in each area, are examined to determine the rationale behind procedural restrictions and the attendant responsibilities.

NR 270
Land Navigation
1 Credit Class 1 Lab 0
Provides an opportunity to learn and practice skills necessary to navigate from point to point on the earth's surface.

NR 271
Campus Park Patrol
3 Credits Class 1 Lab 8
Exposure to situations faced as a front country mounted ranger. Emphasizes safely handling horses in traffic, around crowds and children.

NR 272
Teaching Horseback Riding
3 Credits Class 2 Lab 3
Teaching methods appropriate for wilderness riding, ring work and camps. Safety, good horse management and creative teaching methods are stressed.
Prerequisites: NR 114, NR 115, NR 116, NR 134 and NR 135.

NR 273
Horseshoeing II
3 Credits Class 2 Lab 3
Cold keg-shoeing techniques. Includes financial and record keeping aspects of operating a shoeing business. Prerequisite: NR 115.

NR 274
Colt Training II
3 Credits Class 1 Lab 6
For the student who has successfully completed NR 118 and wishes to continue the 90 to 180 day training program with colts. Emphasis on completing training for a started colt and working with a problem horse. Prerequisite: NR 118.

NR 275
Advanced Survival Techniques
3 Credits Class 2 Lab 3
Natural environments including mountains, desert, arctic, tropic and ocean as well as required equipment for human survival for each. The student will develop a survival kit and use that kit for several days in mountainous backcountry or at a local site. Prerequisite: REC 160 or NR 250 or NR 258.

NR 276
Best Management Practices
1 Credit Class 1 Lab 0
Planning, building and maintaining forest access roads to meet state and federal water quality standards in forested ecosystems. Includes forest hydrology, planning road systems, protecting streamside management zones and road maintenance.

NR 277
Forest Hydrology
3 Credits Class 2 Lab 3
Water and its interaction in forested ecosystems including application of basic concepts of forest management.

NR 280
Defense Weapon Training for Natural Resources Officers
3 Credits Class 2 Lab 4
Review of concepts and testing areas contained in the National Ranger Training Institute's Seasonal Officer Training Program and in the Ohio Peace Officer Training Council's Peace Officer Basic Training Program. Includes intermediate shotgun techniques to improve proficiency and understanding of the capabilities and limitations of the shotgun in domestic law enforcement situations.

NR 285
Intermediate Shotgun
2 Credits Class 1 Lab 3
Concepts and testing areas contained in the National Ranger Training Institute's Seasonal Officer Training Program and the Ohio Peace Officer Training Council's Basic Peace Officer Training Program. Focuses on intermediate shotgun techniques to improve proficiency and deployment options as well as understanding of capabilities and limitations of the shotgun in domestic law enforcement situations. Prerequisite: NR 280 or PSCI 216.

NR 286
Watershed Management
3 Credits Class 2 Lab 3
Inventory, analysis, planning and implementation of a field project directed toward restoration of a degraded watershed and ecosystem. Emphasis on inventory of current resources, establishment of permanent sampling/monitoring stations, identification of ecosystem health problems, analysis of inventory and development of management strategies.

NR 287
Paddling Expedition Management
4 Credits Class 1 Lab 9
Covers all phases of expedition management from conception to completion of trip. Includes an expedition of at least seven days. Prerequisites: NR 154, NR 180, NR 250 and REC 113.

NR 290
Special Topics in Natural Resources
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

NR 291
Individual Study in Natural Resources
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

NR 292
Field Experience in Natural Resources
1-4 Credits Class 0 Lab 12-48
On-the-job training in a natural resources facility through special arrangement with an instructor.

NR 294
Natural Resources Cooperative Work Experience
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

NR 295
Natural Resources Practicum Seminar
1-3 Credits Class 1-3 Lab 0
Discussion of job-related concerns and assistance with practicum. Concurrent with NR 296.

NR 296
Natural Resources Practicum
1-6 Credits Class 0 Lab 8-48
The student is placed in a work environment for a minimum amount of time to gain experience before graduation. Concurrent with NR 295.

NR 297
Natural Resources Observation Hour
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

NR 298
Natural Resources Internship
3-6 Credits Class 0 Lab 20-40
On the job training in the workplace of a cooperating agency. Coordinated by an instructor.

NR 299
Natural Resources Internship Seminar
3 Credits Class 3 Lab 0
Discussion of internship experiences, objectives, and evaluation.

Nursing

NT 100
Fundamentals and Gerontological Nursing
3 Credits Class 3 Lab 0
Introduces the nursing process as a way to identify basic health care needs of adults in diverse settings. Incorporates methods to deliver basic nursing skills in a professional manner. Gerontology emphasizes the natural aging process and care of older adults with alterations in health. Concurrent with NT 101. Prerequisite: Admission to Nursing.

NT 101
Nursing Clinical Experience I
4 Credits Class 0 Lab 13
Provides the opportunity to utilize the nursing process at a beginning level and apply the principles of nursing fundamentals and gerontology to a culturally diverse population. The lab component of the course correlates with NT 100. Concurrent with NT 100. Prerequisite: Admission to Nursing.

NT 102
Nursing Dynamics I
1 Credit Class 1 Lab 0
Concepts related to communication skills and the attitudinal elements essential to the nurse-patient relationship. Exploration of spiritual, cultural and psychosocial dynamics of illness, loss, institutionalization and the experience of grief. Concurrent with NT 100. Prerequisite: Admission to Level I Nursing.

NT 103 PACE
Nutrients
1 Credit Class 1 Lab 0
Normal nutrition and its role in the maintenance of health. Nutrients, their functions and food sources are examined. Caloric needs are also investigated.

NT 104 PACE
Pharmacology Math
1 Credit Class 1 Lab 1
Computational skills necessary to safely administer medications. Includes temperature conversions. Prerequisite: ASSET Math score of 40 or above or MATH 060.

NT 105
Nursing Charting Skills
1 Credit Class 1 Lab 0
Basic charting skills, legal charting guidelines and adapting charting skills to various charting formats.

NT 105A
Charting Skills-Clinical
1 Credit Class 1 Lab 0
Basic charting skills, legal charting guidelines and adapting charting skills to various charting formats.

NT 105B
Charting Skills-Pre-Clinical
1 Credit Class 1 Lab 1
Basic charting skills, legal charting guidelines and adapting charting skills to various charting formats. Prerequisite: Completion of at least two quarters of general nursing courses.

NT 106
Clinical Math Skills
1 Credit Class 1 Lab 1
Methods and processes of mathematical calculations in the clinical setting. Emphasis on accurately calculating medication dosages and select physiological calculations including age-related diversity. Prerequisites: NT 104 and enrolled in Nursing clinicals.

NT 110
Fundamentals/Maternal-Newborn Nursing
3 Credits Class 3 Lab 0
Principles and practices of care during the antepartum, intrapartum, postpartum and neonatal periods. Includes biological and behavioral changes associated with the normal reproductive process, common complications of pregnancy and common anomalies/complications of the newborn period, including prematurity. Concurrent with HC 106. Prerequisites: HC 100, NT 100, NT 101, NT 102, NT 103 and NT 104.

NT 111
Nursing Clinical Experience II
4 Credits Class 0 Lab 13
Principles of maternal-newborn nursing to provide care for the childbearing family. The lab component of this course correlates with NT 110. Concurrent with NT 110. Prerequisites: HC 100, NT 100, NT 101, NT 102, NT 103 and NT 104.

NT 112
Nursing Dynamics II
1 Credit Class 1 Lab 1
Interpersonal relationships and communication within nursing. Investigates nursing ethics, professional behavior, prepared childbirth and human sexuality. Explores dynamics and nursing interventions related to domestic violence, rape, trauma, substance abuse and pregnancy loss. Awareness of and tolerance for developmental, cultural and lifestyle variations will be encouraged. Prerequisite: NT 102.

NT 113 PACE
Lifespan: Nutrition
1 Credit Class 1 Lab 0
Nutritional needs during specific periods within the lifespan including pregnancy, infancy, childhood, teen years, adult and geriatric years. Also digestion, absorption and metabolism of food, food allergies, fevers, infections and inborn errors of metabolism. Prerequisite: NT 103.

NT 114
Pharmacology for Nurses: Introduction and Drug Administration
1 Credit Class 1 Lab 0
Introduction to pharmacology terminology, sources of information about drugs, legal regulations concerning drugs, drug classifications and the nursing process related to the administration of drugs. Concurrent with NT 110 and NT 111. Prerequisite: NT 104.

NT 120
Nursing of the Adult
3 Credits Class 3 Lab 0
Common health alterations of adult clients including cardiovascular, hematological, endocrine, respiratory, gastrointestinal, renal and gynecological problems. Communication techniques for supportive interaction with clients and families are discussed.

NT 121
Nursing Clinical Experience III
4 Credits Class 0 Lab 13
Supervised clinical experience in the care of adult clients with common health alterations. Observations in critical care units and surgery are included as well as nutrition and pharmacology experiences. Requires demonstration of the ability to integrate concepts in order to plan, prioritize and modify the nursing plan of care. Emphasis is placed on nursing skills, therapeutic communication, professional behavior and accountability. The lab component correlates with NT 120. Concurrent with NT 120. Prerequisites: HC 106, HC 110 or HC 120, NT 110, NT 111, NT 112, NT 113 and NT 114.

NT 122
Nursing Dynamics III
1 Credit Class 1 Lab 0
Interpersonal relationships and communication within nursing. Investigation of legal aspects of nursing, nursing history, nursing image, holistic health and health care alternatives. Utilizing nursing process theory, the student will also focus on nursing interventions related to depression and suicide. Prerequisite: NT 112.

NT 123 PACE
Nutritional Care I
1 Credit Class 1 Lab 0
Background knowledge of routine hospital diets and the special nutritional care indicated in treating disorders of various body systems. Concurrent with NT 120 and NT 121. Prerequisite: NT 113.

NT 124
Pharmacology for Nurses: Drug Classification I
1 Credit Class 1 Lab 1
Administering oral, parenteral medications and the actions, dosages, side effects and interactions of medications in selected drug classifications. Includes cardiotonics, anticoagulants, antiarrhythmics, vasodilating agents, insulin, oral hypoglycemic agents, thyroid, antithyroid agents, male and female hormones, drugs that affect gastrointestinal function, diuretics and antihypertensives. Emphasis is placed on patient care implications of drugs, incorporating information required by a nurse for appropriate administration of drugs, and for the proper assessment, care, evaluation and education of the patient. Concurrent with NT 120 and NT 121. Prerequisite: NT 114.

NT 130
Nursing of the Adult and Child
3 Credits Class 3 Lab 0
Care of adults and children through the lifespan. Includes sensory, motor, immune and integumentary functioning as well as pediatric nursing concepts related to cardiovascular, respiratory and gastrointestinal disturbances. Aspects of disease prevention, health maintenance and rehabilitation are also included. Concurrent with NT 131. Prerequisites: NT 120, NT 121, NT 122, NT 123, NT 124, HC 110, HC 120 and PSYC 151.

NT 131
Nursing Clinical Experience IV
4 Credits Class 0 Lab 13
Care of adult and pediatric clients with alterations in health and observation of the growth and development of children in various community settings. Requires the ability to integrate concepts in order to plan, prioritize and modify the nursing plan of care. The laboratory component of the course correlates with NT 130. Concurrent with NT 130. Prerequisites: NT 120, NT 121, NT 122, NT 123, NT 124, HC 110, HC 120 and PSYC 151.

NT 132
Nursing Dynamics IV
1 Credit Class 1 Lab 0
Communication skills, interpersonal relationships and attitudinal elements essential to the nursing profession. Focuses on preparing for the transition into the world of nursing. Includes exploration of the special areas of nursing such as child abuse, hospice and the nursing care of the terminally ill child. Concurrent with NT 130 and NT 131. Prerequisite: NT 122.

NT 133 PACE
Nutrition Economics
1 Credit Class 1 Lab 0
Food as a source of essential nutrients, menu planning for adequate nutrition, economical food purchasing and preparation, food additives and community nutrition problems including nutritional deficiencies and excesses and food borne illnesses. Prerequisites: NT 103 and NT 113.

NT 134
Pharmacology for Nurses: Drug Classification II
1 Credit Class 1 Lab 1
Actions, dosages, side effects and interactions of medications in selected drug classifications. Includes adrenocorticosteroid drugs, adrenergic and adrenergic blocking agents, cholinergics and cholinergic blocking agents, antibiotics, sulfa drugs, antifungal drugs, antihistamines, sedatives, hypnotics, narcotic analgesics, non-narcotic analgesics, analgesics, antipyretics, antianxiety agents, anti-inflammatory agents, antipsychotic and antidepressant drugs. Emphasizes patient care implications of drugs, incorporating information required by a nurse for the appropriate administration of drugs and for the proper assessment, care, evaluation and education of the patient. Concurrent with NT 130 and NT 131. Prerequisite: NT 124.

NT 140
Technical Aspects of Adult Health Nursing
5 Credits Class 4 Lab 4
Review of common health problems and utilization of the nursing process in planning and caring for adults. Includes the principles and practice of related technical skills and opportunities for supervised activities in the nursing lab and in health care facilities. Prerequisite: Admission to Enrichment.

NT 142
Technical Aspects of Nursing Dynamics
1 Credit Class 1 Lab 1
Communication skills, interpersonal relationships and the role of the nurse on the health care team. Overview of key areas covered in all Level I Nursing Dynamics courses. Investigates concepts related to loss and crisis intervention. Prerequisite: Admission to Enrichment.

NT 143
Technical Aspects of Nutrition
1 Credit Class 1 Lab 0
Review of nutrients and nutritional care including nutrients, dietary guidelines, metabolism and weight control, food safety, diabetes mellitus, cardiovascular disorders and pregnancy and lactation. Optional topics are offered for independent student review. Prerequisite: Admission to Enrichment.

NT 144
Technical Aspects of Pharmacology for Nurses
2 Credits Class 2 Lab 0
Review of pharmacology and related nursing care. Selected drug classifications are presented with emphasis on patient care implications of drugs including information required by a nurse for appropriate administration of the drug and the proper assessment, care, evaluation and education of the patient. Prerequisite: Admission to Enrichment.

NT 146
Technical Aspects of Child Health Nursing
2 Credits Class 2 Lab 0
Review of pediatric nursing, infant through adolescence. Physical, cognitive and psychosocial factors are presented. Emphasis is placed on the study of common health problems and the utilization of the nursing process in caring for children with those conditions. Patient/family teaching, the child's response to hospitalization, communication techniques, utilization of community resources and cultural factors are stressed. Prerequisite: Admission to Enrichment.

NT 147
Technical Aspects of Maternal-Newborn Nursing
2 Credits Class 2 Lab 0
Review of obstetrical nursing to provide or update information so that the student may proceed into Level II nursing courses with a sound basic theoretical background. Use of the nursing process in the delivery of holistic health care in this setting is emphasized. Prerequisite: Admission to Enrichment.

NT 150
Nursing Care Experience
4-8 Credits Class 0 Lab 12-24
Supervised clinical experience in a medical/surgical unit. Emphasizes utilization of the nursing process in planning, implementing and evaluating patient care.

NT 151
IV Therapy for LPN's
4 Credits Class 3 Lab 3
Provides the LPN with the knowledge and skills needed to perform limited intravenous therapy procedures on adults at the direction of a registered nurse, licensed physician, dentist or podiatrist as outlined in 4723-17-10 of the Ohio Board of Nursing Administrative Code. Successful completion of this course and the meeting of all criteria confirmed by the Ohio Board of Nursing results in the Ohio Board of Nursing issuing a card of completion. The laboratory component of this course provides the student with the opportunity to practice intravenous therapy procedures. Clinical will be arranged following satisfactory completion of theory and laboratory components.

NT 152
Physical Assessment
0.5-3 Credits Class 0.5-3 Lab 0
Focuses on the total process of client assessment. Collection of subjective data through the use of a health history. The skills of percussion, auscultation and palpation are introduced as the participant learns to perform physical examinations. Includes assessment techniques for adults, children and obstetric clients.

NT 152A
Physical Assessment of Adult
0.5-3 Credits Class 0.5-3 Lab 0
Enables participants to learn and practice physical assessment techniques that can be used by nurses in all areas of practice. Includes techniques of inspection, palpation and auscultation, as well as accurately describing the objective data gained by these techniques. Focuses on appropriate terminology for clear, concise documentation.

NT 152B
Physical Assessment of Child
0.5-3 Credits Class 0.5-3 Lab 0
Physical assessment techniques used by nurses in pediatric settings. Data base collection for the pediatric client is similar to that of the adult. Exceptions include prenatal growth and development, behavioral and school status histories. Participants will learn the techniques of inspection, palpation, and auscultation, as well as learn to describe accurately the objective data gained by these techniques. Focused on appropriate terminology for clear, concise documentation.

NT 152C
Physical Assessment of Obstetric Client
0.5-3 Credits Class 0.5-3 Lab 0
Skills needed to recognize, interpret and act on abnormal physical assessment findings in the pregnant client. Course content has been designed for acute care, ambulatory clinics and home health nurses who care for both normal and high risk obstetric clients. Perinatal nurses working in all practice areas and at all levels of experience will find this course useful.

NT 153
Nursing Process
0.5-6 Credits Class 0.5-6 Lab 0
The nursing process has been described as the essence of nursing. It is a deliberate, problem-identification and problem-solving approach to meeting the client's health care and nursing needs. The nursing process is based on the American Nurses Association's Standards of Nursing Practice. These standards are incorporated into assessment, nursing diagnosis, planning, implementation and evaluation. Focuses on the steps of the nursing process and formulating an individualized nursing care plan.

NT 153A
Nursing Process: Assessment
0.5-3 Credits Class 0.5-3 Lab 0
The assessment component of the nursing process. Topics include the systematic collection of data about the client's health status, analysis of the data to determine actual and potential health needs and use of the data to formulate nursing diagnoses.

NT 153B
Nursing Process: Critical Thinking
0.5-3 Credits Class 0.5-3 Lab 0
Designed to examine what critical thinking means. Topics include a definition for critical thinking; definition for nursing; how thinking is influenced by such factors as emotions, self-confidence and anxiety; specific, practical strategies to improve thinking and ways of teaching and measuring critical thinking in nursing.

NT 153C
Nursing Process: Analysis
0.5-3 Credits Class 0.5-3 Lab 0
Identification and formulation of nursing diagnoses. Upon completion of the nursing history and health assessment, the nurse organizes, analyzes, synthesizes and summarizes data collected and determines the client's need for nursing care. Focuses on the development of nursing diagnoses using the North American Nursing Diagnosis Association taxonomy.

NT 153D
Nursing Process: Planning
0.5-3 Credits Class 0.5-3 Lab 0
Once the nursing diagnoses have been identified, the planning component of the nursing process is developed including the assignment of priorities to the nursing diagnoses, specification of immediate and long-term goals of nursing action, identification of specific nursing interventions appropriate for attaining the goals, and collaboration between the nurse, other members of the nursing team, other members of the health care team, the client, the client's family and community agencies.

NT 153E
Nursing Process: Implementation
0.5-3 Credits Class 0.5-3 Lab 0
Carrying out of the proposed plan of care. Topics include the nursing care plan as the basis for implementation, the nurse's continued assessment of the client and his response to nursing care while implementing nursing care and altering interventions based on the client's response.

NT 153F
Nursing Process: Evaluation
0.5-3 Credits Class 0.5-3 Lab 0
Determining the client's response to nursing interventions and the extent to which goals have been achieved.

NT 154
Medical/Surgical Nursing Electives
0.5-5 Credits Class 0.5-5 Lab 0
Current concerns and developments in the field of medical/surgical nursing. Focus is directed toward the care of clients with acute or chronic health alterations and the role of the nurse in providing and facilitating nursing care. Additional sections emphasize health alterations, gerontological considerations, pharmacotherapeutics, client education and home health care.

NT 200
Mental Health Nursing
3 Credits Class 3 Lab 1
Focuses on the sensitivity of the student nurse to patient needs, the enhancement of communication skills and the therapeutic use of self. Emphasizes student awareness of and sensitivity to the mental health needs of people across the lifespan and of people experiencing mental health problems. Mental health promotion is included. Concurrent with NT 201. Prerequisites: Graduation from Level I or completion of all Enrichment courses and admission to Level II and PSYC 152 (taken prior to or concurrently).

NT 201
Nursing Clinical Experience V
3 Credits Class 0 Lab 9
Offers the student opportunities to observe and/or provide basic nursing care for people experiencing mental health problems. Focuses primarily on inpatient mental health facilities but community observation experiences are also included. Emphasis is also placed on awareness of and sensitivity to the needs of self, others and the enhancement of interpersonal skill development. Concurrent with NT 200. Prerequisites: Graduation from Level I or completion of all Enrichment courses and admission to Level II.

NT 202
Role Transition LPN to RN
1 Credit Class 1 Lab 0
Focuses on the role change and professional behaviors appropriate for an LPN in transition to an RN. Role and change theory, stress and stress management related to role change and professional issues such as professional organizations, professional commitment, nursing image, the history of the AND, career planning and legal and political aspects related to the scope of practice will be discussed. Concurrent with NT 200 or instructor permission.

NT 210
Advanced Nursing of the Adult I
3 Credits Class 3 Lab 0
Care of adult patients with a variety of selected, well-defined complex health alterations. The student facilitates the patient and family in achieving and maintaining their highest level of functioning. Concurrently with NT 211. Prerequisites: NT 200, NT 201, NT 202 and HC 200.

NT 211
Nursing Clinical Experience VI
5 Credits Class 0 Lab 16
Clinical experience in acute care settings. Emphasizes providing nursing care to adult patients with a variety of complex health alterations. Opportunity is provided to apply nursing knowledge in the performance of intermediate and advanced nursing skills. The laboratory component of the course correlates with NT 210. Concurrent with NT 210. Prerequisites: NT 200, NT 201, NT 202 and HC 200.

NT 213 PACE
Nutritional Care II
1 Credit Class 1 Lab 0
Nutritional assessment, iatrogenic malnutrition, vegetarian regimes and nutritional needs in thermal injury, cancer and mental illness. Additional discussion areas include cardiovascular disorders, sodium modifications and tube feeding. Prerequisite: NT 143 or graduate of Level I.

NT 220
Advanced Nursing of the Adult II
3 Credits Class 3 Lab 1
Care of adult patients with a variety of selected well-defined complex health alterations. Leadership and management roles of the nurse are presented. The lab component of the course includes activities designed to assist the student in the identification and application of leadership and management skills. Concurrent with NT 221. Prerequisites: NT 210, NT 211, NT 213 and PSYC 151.

NT 221
Nursing Clinical Experience VII
5 Credits Class 0 Lab 15
Clinical experience in an acute care setting. Emphasizes utilization of the nursing process in the provision of care to adult/ child patients with a variety of complex health alterations. The student incorporate roles of leader/manager, patient/ family teacher and professional. Concurrent with NT 220. Prerequisites: NT 210, NT 211, NT 213 and PSYC 151.

NT 222
Nursing Dynamics V
1 Credit Class 1 Lab 1
Preparing the student for the transition into the world of nursing. The role of the AND in research, ethical and legal implications for practice and career development issues are explored. Prerequisites: NT 210 and NT 211.

NT 225
Advanced Maternal Child Nursing
1 Credit Class 1 Lab 1
Advanced study and review of maternal-child nursing. Maternal-newborn content includes fetal development, nursing assessment and care during pregnancy, birth and postpartum, and newborn care and complications. Nursing care of the child includes growth and development and health alterations during infancy, toddler, preschool, schoolage and adolescence. Prerequisites: NT 210 and NT 211.

NT 250
Nursing in the Community: Theory
3 Credits Class 3 Lab 0
Concepts and processes related to community health nursing. Emphasis on the tasks and roles of the community health nurse in today's society. Prerequisite: Quarter 7 status or instructor permission.

NT 251
Nursing In The Community: Clinical
3 Credits Class 1 Lab 7
Provides an opportunity to observe and apply basic community health nursing concepts in community settings. Practitioners in the areas of home health, Hospice, public schools and health departments act as preceptors for the student. Prerequisite: Quarter 7 status.

NT 260
State Board Nursing Review
3 Credits Class 3 Lab 0
A comprehensive review of obstetrics, pediatrics, medical/surgical and mental health nursing. Focus on decision making; categories of human functioning; nursing care of the child and adolescent, of the young adult in the reproductive years, of acute and chronic health problems in the adult years, and behavioral and emotional problems throughout the age span. Includes methods to improve test taking skills and to relieve stress. Prerequisite: Graduate of Level II.

NT 280
Health Care Systems
3 Credits Class 3 Lab 0
Provides an opportunity to observe an alternate health care delivery system, to identify the role of the nurse in that system and to assess the impact of that delivery system on the health care consumer.

NT 290
Special Topics in Nursing
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

NT 291
Individual Study in Nursing
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

NT 292
Field Experience in Nursing
1-4 Credits Class 0 Lab 12-48
On-the-job training in a nursing facility through special arrangement with an instructor.

NT 293
Nursing Directed Practice
1-8 Credits Class 0 Lab 5-40
Directed practice instruction in the performance of a particular function by the instructor.

NT 294
Nursing Cooperative Work Experience
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

NT 295
Nursing Technology Practicum Seminar
1-3 Credits Class 1-3 Lab 0
Discussion of job-related concerns and assistance with practicum. Prerequisite: Level I graduate.

NT 296
Practicum in Nursing
1-6 Credits Class 0 Lab 7-42
The student is placed in a work environment for a minimum amount of time to gain experience before graduation.

NT 297
Nursing Observation Hour
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

NT 298
Nursing Internship
3-6 Credits Class 0 Lab 20-40
On the job training in the workplace of a cooperating agency. Coordinated by an instructor. Prerequisite: Level I graduate.

NT 299
Nursing Internship Seminar
3 Credits Class 3 Lab 0
Discussion of internship experiences, objectives, and evaluation.

Office Administration

OAT 100 PACE
Beginning Typing
3 Credits Class 2 Lab 4
Beginning typing using the IBM personal computer. Offers a quick review for the student with previous training and allows progression at the individual's own rate. Typing of letters, reports and tables are included.

OAT 101 PACE
Intermediate Typing
3 Credits Class 2 Lab 4
Increases speed and accuracy through the use of drills and Diatype analyzers. A variety of manuscripts, tables and correspondence are typed. Prerequisite: OAT 100.

OAT 102
Advanced Typing
3 Credits Class 2 Lab 4
Improves speed and accuracy and develops proficiency for the production of business letters, tables, forms and reports commonly found in the general office, accounting office, executive office, technical office and professional office. Prerequisite: OAT 101.

OAT 103
Collegiate Secretarial International I
0.25-0.50 Credit Class 0.25-0.50 Lab 0
Introduction to professional organizations and the importance of continuing education and networking within the profession.

OAT 104
Collegiate Secretarial International II
0.25-0.50 Credit Class 0.25-0.50 Lab 0
Continuation of OAT 103 for the second-year office administrative student.

OAT 105
Introduction to Personal Shorthand
3 Credits Class 3 Lab 2
Instruction and theory of personal short-hand, an alphabetic system of notetaking. Intended for personal use or for notetaking in business offices.

OAT 106
Advanced Personal Shorthand
3 Credits Class 2 Lab 4
Develops word and phrase building and increases speed through the use of the wireless learning system. Transcription of business letters from shorthand notes is further developed. Prerequisites: OAT 100 and OAT 105.

OAT 107
Telephone Skills
1 Credit Class 1 Lab 1
Aspects of telephone use in an office. Includes single-line telephones and multi-button computerized systems, recording messages, long distance procedures, using directory assistance and handling emergency situations.

OAT 108
Collegiate Secretarial International III
0.25 Credit Class 0.25 Lab 0
Continuation of OAT 104.

OAT 110
Office Administration I
3 Credits Class 3 Lab 2
Overview of the modern business office. Methods that may be encountered in any size office and professional procedures for carrying out duties including secretarial/ receptionist duties and records management. Opportunities in the secretarial field and various levels of secretarial work are explored. Personal qualifications, proper attitude and conduct are stressed through problem-solving situations.

OAT 111
Office Administration II
3 Credits Class 3 Lab 2
Gives the executive assistant background to lend administrative support to today's busy executives; to use judgment and make decisions, to work without supervision and to be able to apply word processing principles to process information. Prerequisites: OAT 100 and OAT 110.

OAT 113
Office Administration Computer Systems
1 Credit Class 1 Lab 1
Utilizing computer systems to classify, sort, merge, record, retrieve, and transmit information. Introduction to computer systems, hardware, software, disk operating systems and windows.

OAT 114
Office Administration Machines
1 Credit Class 1 Lab 2
Use of office machines including the ten-key pad, multi-line switchboard, fax machine, and be able to use the various functions and perform maintenance on copying and duplicating equipment.

OAT 121
Speed Building I
1 Credit Class 1 Lab 2
Intense individualized program to improve the student's speed and accuracy on five-minute timings.

OAT 122
Speed Building II
1 Credit Class 1 Lab 2
Continuation OAT 121.

OAT 130
Beginning Shorthand
3 Credits Class 3 Lab 2
Designed for the beginning Gregg shorthand student with no prior training. The student with prior knowledge and skill will review the basic principles and progress at an individual rate.

OAT 131
Intermediate Shorthand
3 Credits Class 2 Lab 4
Develops word and phrase building and increases dictation speed through the use of the wireless learning system. Transcription of business letters from shorthand notes is introduced and developed. Prerequisite: OAT 130.

OAT 132
Advanced Shorthand
3 Credits Class 2 Lab 4
Develops word and phrase building and increases dictation speed through the use of the wireless learning system. Transcription of business letters from shorthand notes is further developed. Prerequisites: OAT 100 and OAT 131.

OAT 135
DisplayWrite IV
3 Credits Class 2 Lab 4
Introduction to word processing by demonstration and experience on a microcomputer or personal computer using DisplayWrite 4. Prerequisite: OAT 100.

OAT 150 PACE
IBM Personal Typing System
1 Credit Class 1 Lab 2
Independent study for the student who has completed OAT 100 and a software package. The student becomes proficient in operating the IBM Personal Typing System. Prerequisites: OAT 100 and OAT 210.

OAT 151
Xerox 630 Memorywriter
1 Credit Class 1 Lab 2
Independent study course for students who have completed Competency One of Typing II. Students become proficient in operating the Xerox 630 Memorywriter. Skills developed transfer to other electronic typewriters.

OAT 160
Technical Office Practicum
1 Credit Class 0 Lab 8
Hands-on technical experience utilizing Hocking College resources. Prerequisite: Third quarter standing or instructor permission.

OAT 180
Keyboarding
1 Credit Class 1 Lab 1
Basic instruction on the alphanumeric keyboard. The student learns to operate a computer terminal which allows them to key in information swiftly and efficiently.

OAT 190
Pretranscription Skills
2 Credits Class 1 Lab 3
Development of competency in communication including writing, speaking, listening and reading to prepare for transcription in the modern business office. Competencies include grammar, punctuation, capitalization, abbreviations, numbers style, plurals and possessives, spelling, word division, editing and proofreading.

OAT 200
Introduction to Transcription
3 Credits Class 2 Lab 4
Introduction to the desk top cassette transcriber. Proper care of equipment and transcribing techniques stressed to produce mailable copy. Emphasizes communication and proofreading skills. Prerequisite: OAT 101.

OAT 210
WordPerfect
3 Credits Class 2 Lab 4
Operation of word processing by demonstrations and experience using a WordPerfect 5.1. Prerequisite: OAT 100.

OAT 210A
WordPerfect Introduction
1 Credit Class 1 Lab 0.5
Introductory seminar is for the beginner using WordPerfect 5.1. Includes entering, saving, retrieving, editing and formatting documents.

OAT 210B
Advanced WordPerfect
1 Credit Class 1 Lab 0.5
Designed for the current user of WordPerfect 5.1 or the student with basic knowledge of the software. Includes merge printing, headers and footers and desktop publishing. Prerequisite: OAT 210A or equipment experience.

OAT 211
WordPerfect for Windows
3 Credits Class 2 Lab 4
Emphasizes on advanced formatting, desktop publishing and special features. Prerequisite: OAT 210.

OAT 212
WordPerfect Applications
1-3 Credits Class 1-2 Lab 1-3
Experience on a microcomputer using WordPerfect 5.1 for DOS and/or WordPerfect 5.2 for Windows.

OAT 220
Office Administration III
3 Credits Class 3 Lab 0
Designed for prospective secretaries who may be expected to assume some of the duties of an office manager. Topics include principles governing effective supervision, office organization, the functions of management, the office environment and current employment and personnel practices. Prerequisite: OAT 111.

OAT 230
Administrative Transcription
3 Credits Class 2 Lab 4
Development of proficiency in producing mailable copy of dictated letters, memos, reports and material with changes and corrections. Communications involve areas in banking, accounting, government, data/word processing and insurance. Prerequisites: OAT 101 and OAT 200.

OAT 240 PACE
Word Processing Applications
3 Credits Class 2 Lab 4
Advanced course in word processing applications. Prerequisites: OAT 102, OAT 135, OAT 150 and OAT 211.

OAT 260
Administrative Typing
3 Credits Class 2 Lab 4
Develops typing difficult material for acceptability in the business office. Most copy is unarranged and in longhand. Following instructions, implied as well as stated, is required. Simulations provide realistic experiences with various tasks performed by executive and administrative secretaries. Prerequisites: OAT 102 and OAT 230.

OAT 270
Legal Terminology and Typing
3 Credits Class 2 Lab 4
Introduction to legal terminology and typing of legal documents. Definition and spelling of legal terms and correct formats for legal typing. Proofreading skills and productivity are developed. Prerequisite: OAT 102.

OAT 280
Legal Machine Transcription
3 Credits Class 2 Lab 4
Use of the cassette transcriber to type legal documents. Stresses correct spelling, punctuation and placement and accurate proofreading. Prerequisites: OAT 102 and OAT 200.

OAT 285
Research Form for Legal Secretary
1 Credit Class 1 Lab 1
Introduction to terminology explicit to legal research. The student is introduced to the use of law books and the law library. Proper legal citation form is covered. Prerequisites: OAT 270 and OAT 280.

OAT 290
Special Topics in Secretarial Science
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

OAT 291
Individual Study in Secretarial Science
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

OAT 292
Field Experience in Secretarial Science
1-4 Credits Class 0 Lab 12-48
On-the-job training in a secretarial facility through special arrangement with an instructor.

OAT 294
Secretarial Cooperative Work Experience
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

OAT 295
Office Administration Seminar
1-3 Credits Class 1-3 Lab 0
Discussion of job-related concerns and assistance with practicum. Concurrent with OAT 296. Prerequisite: Sixth quarter standing.

OAT 296
Office Administration Practicum
1-6 Credits Class 0 Lab 8-48
The student is placed in an office two days a week to gain experience before graduation. Concurrent with OAT 295. Prerequisite: Sixth quarter standing.

OAT 297
Secretarial Observation Hour
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

OAT 298
Secretarial Internship
3-6 Credits Class 0 Lab 20-40
On the job training in the workplace of a cooperating agency. Coordinated by an instructor.

OAT 299
Secretarial Internship Seminar
3 Credits Class 3 Lab 0
Discussion of internship experiences, objectives, and evaluation.

Oil Well Drilling and Production

OP 101
Well Completions and Stimulation
3 Credits Class 2 Lab 3
Procedures required to put an oil or gas well into production after the well has been drilled. Emphasizes different completion methods regarding casing, cementing and stimulation alternatives. Includes common practices, advantages, disadvantages and requirements.

OP 102
Petroleum Geology
3 Credits Class 3 Lab 0
Nature of the earth as related to the finding and producing of oil and gas. Accumulation and migration of oil and gas, and sample examination and formation evaluation. State-of-the-art exploration techniques and the relationship between reservoir performance and the various production techniques.

OP 103
Production Techniques
3 Credits Class 2 Lab 3
Production techniques commonly used in the Appalachian Basin. Production fundamentals such as sucker rod pumping, downhole pumps and the use of the recording dynamometer. Plunger-lift fundamentals, controlling devices and troubleshooting production problems.

OP 107
Oil and Gas Drilling
3 Credits Class 2 Lab 3
Basic techniques and skills associated with the different drilling methods. Topics include rig components, bits, mud pumps, mud systems and rig safety.

OP 108
Production Gas Measurement I
3 Credits Class 2 Lab 3
Designed for entry-level personnel employed by gas utilities. Basic concepts of gas metering and regulation. Topics include diaphragm meters, rotary meters, meter instrumentation and turbine meters. Basic gas laws and their applications regarding gas measurement. Prerequisite: OP 103.

OP 110
Oil and Gas Field Operations
3 Credits Class 2 Lab 3
Duties and responsibilities of the oil field production worker. Bottomhole configurations, basic downhole problems, preventative maintenance programs and proper record-keeping. Training in the duties of the pumper, methods of production and associated problems. Operation costs, methods of keeping records for individual wells and leases and recognizing when well servicing may be required.

OP 112
Production Gas Measurement II
3 Credits Class 2 Lab 3
Operation and maintenance of orifice, diaphragm, turbine and rotary meters. Proper start-up procedures, differential testing and orifice meter calibration using a dead weight tester and mercury manometer. Includes measurement problems and trouble-shooting.

OP 113
Production Gas Measurement III
3 Credits Class 2 Lab 3
Operation and maintenance of orifice, diaphragm, turban and rotary meters. Proper start-up procedures, differential testing and orifice meter calibration using a dead weight tester and mercury manometer. Includes measurement problems and trouble-shooting.

OP 200
Electricity and Prime Movers I
3 Credits Class 2 Lab 3
Maintenance and trouble-shooting of electrical components and control devices commonly used in oil field applications as related to pumping units, compressors, brine disposal operations and other associated equipment.

OP 201
Electricity and Prime Movers II
3 Credits Class 2 Lab 3
Use of state-of-the-art compressor control panels, brine disposal controls and associated equipment. Troubleshooting and maintenance of all types of electrical equipment commonly used in the oil field. Prerequisite: OP 200.

OP 205
Well Evaluation Techniques
3 Credits Class 2 Lab 3
Basic well logging designed for the student with little or no knowledge of the subject. Emphasizes interpretation of the results of log calculations and how to obtain the data from well logs. Emphasizes the Appalachian Basin, open-hole analysis, core evaluation, mud logs and other mechanical logs.

OP 206
Advanced Drilling Techniques
3 Credits 2 Class Lab 3
Methods used to control wells, a study of drilling fluids, problems in rig safety and the economics of drilling operations. Prerequisite: OP 107.

OP 207
Production/Transmission Pressure Regulation I
3 Credits Class 2 Lab 3
Regulation devices used in industrial applications. Sizing, installation, operation, tear down and repair. Hands-on training in operating and maintaining the various regulating devices available to industry.

OP 208
Production Economics
4 Credits Class 4 Lab 0
Operation costs, factors in determining profit and loss and methods and procedures for keeping records for individual wells and leases. Emphasizes the student's role as a positive economic force. Prerequisites: OP 103 and OP 108.

OP 209
Well Workovers
3 Credits Class 2 Lab 3
Methods, procedures and techniques for repairing a downhole problem or reworking an oil well in order to increase production. Includes training in the use of servicing tools.

OP 210
Advanced Petroleum Applications
3 Credits Class 2 Lab 3
Problems encountered in well production including the areas of pumping, brine disposal and secondary recovery. Prerequisites: OP 102 and OP 204.

OP 215
Production Compressors
3 Credits Class 2 Lab 3
Skills required to operate, maintain and troubleshoot compressors used for wellhead applications. Through hands-on training, students learn to troubleshoot electrical controls, unloading valves and the compressor block. Includes sizing, installation and preventative maintenance.

OP 217
Gas Measurement Instrumentation
3 Credits Class 2 Lab 3
Operation, maintenance and calibration of pressure and temperature compensating devices used in gas measurement applications. Dead weight testers, mercury manometers and calibration procedures.

OP 230
Production/Transmission Pressure Regulation II
3 Credits Class 2 Lab 3
Regulating devices associated with natural gas production and transmission. Pilot operated, back pressure and control/monitor regulators. Includes extensive hands-on training with devices directly applicable to the working environment.

OP 290
Special Topics in Oil Well Drilling and Production
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by the participants in a group.

OP 291
Individual Study in Oil Well Drilling and Production
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

OP 292
Field Experience in Oil Production
1-4 Credits Class 0 Lab 12-48
On-the-job training in an oil production facility through special arrangement with an instructor.

OP 294
Oil Well Cooperative Work Experience
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

OP 295
Oil Production Practicum Seminar
1-3 Credits Class 1-3 Lab 0
Discussion of job-related concerns and assistance with practicum.

OP 296
Oil Well Practicum
1-6 Credits Class 0 Lab 7-42
The student is placed in a work environment for a minimum amount of time to gain experience before graduation.

OP 298
Oil Well Production Internship
3-6 Credits Class 0 Lab 20-40
On the job training in the workplace of a cooperating agency. Coordinated by an instructor.

OP 299
Oil Well Internship Seminar
3 Credits Class 3 Lab 0
Discussion of internship experiences, objectives, and evaluation.

Police Science

PSCI 105
Tactical Patrol Procedures
3 Credits Class 2 Lab 3
Study and practice of duties for the police officer on the street including the tactics, procedures and guidelines for safely and legally answering all types of calls.

PSCI 106
Police Communication Operations
2 Credits Class 2 Lab 2
Procedures of public safety dispatching including LEED's operation. APCD certification.

PSCI 108
Defensive Driving and Cruiser Operations
1 Credit Class 1 Lab 1
Public safety vehicle operation as well as development of driver skills in a vehicle driving range.

PSCI 140
Investigations Techniques and Methods
3 Credits Class 3 Lab 2
Crime scene processing and follow-up investigation.

PSCI 180
Criminalistics I
3 Credits Class 2 Lab 4
Fingerprint systems used in the criminal justice systems. Includes the Henry and the N.C.I.C. methods of fingerprint classification and methods used to take major crime prints and rolled fingerprints.

PSCI 200
Police Performance Objectives Seminar
1 Credit Class 1 Lab 1
Reviews performance objectives presented in the Hocking College (Blend) Policy Academy or the Hocking College (Basic) Police Academy. Students must be eligible to take the state OPOTC test.

PSCI 205
Advanced Patrol Procedures
3 Credits Class 2 Lab 3
Practical, safe and professional techniques in dealing with problems encountered by police. Includes a comprehensive examination of traffic and crowd control functions and techniques. Prerequisite: PSCI 105.

PSCI 210
Crime Prevention and Community Relations
2 Credits Class 1 Lab 4
Methods used by criminal justice personnel in crime prevention and community relationships including programs and systems.

PSCI 216
Police Firearms
3 Credits Class 2 Lab 4
Introduction to modern police firearms. Nomenclature, weapons care, proper use, restrictions, liability, transporting arms and safety procedures. Includes range practice. Prerequisite: Instructor permission.

PSCI 217
O.P.O.T.C. Firearms Requalification Program
0.5 Credit Class 0.5 Lab 0.5
Review of the individual's departmental use of force policy. Proper safety procedures, general safety, range safety and safety at home will be discussed. Includes range qualification under OPOTC standards. Prerequisite: PSCI 215 or PSCI 216 or PSCI 250.

PSCI 223
Criminal Evidence
3 Credits Class 3 Lab 2
Rules of evidence applied by the courts. Contrasts the Federal Rules of Evidence, the Ohio Rules and the Common Rules and their applications. Prerequisite: Instructor permission.

PSCI 235
Police Report Writing
2 Credits Class 2 Lab 1
Writing effective police reports. The participant learns to find and record all relevant facts, analyze and organize findings as well as distinguish fact from hearsay, conclusion and opinion and communicate all relevant findings in a well-written report. Prerequisite: COMM 122.

PSCI 240
Advanced Investigation
3 Credits Class 2 Lab 5
Major case preparation and analysis including homicide investigation procedures and forensic techniques. Prerequisite: PSCI 140.

PSCI 245
Accident Investigation
3 Credits Class 3 Lab 2
Techniques used in vehicle traffic accident investigation including report writing, scene reconstruction and analysis of causes.

PSCI 246
Homicide Investigation
3 Credits Class 3 Lab 0
Problems and considerations relevant to conducting a homicide investigation. Includes a review of the special procedures, investigative techniques and latest laboratory analysis used by the investigator.

PSCI 248
Unsolved Homicides
0.25-5 Credits Class 0.25-5 Lab 0
Case studies applying investigative law enforcement techniques to currently unresolved homicides.

PSCI 249
British Law Enforcement
1 Credit Class 1 Lab 0
Provides American police officers with the opportunity to observe and experience British law enforcement operations. Structured activities create an understanding of the operational and jurisdictional issues and functions of the London Metropolitan Police. Students gain technical knowledge of advanced criminalistics through observation and demonstrations at the London Metropolitan Forensic Laboratory. Criminal investigation methods and issues will be presented and discussed by detectives from Scotland Yard. Prerequisite: Peace Officer Certification or instructor permission.

PSCI 250
Peace Officer Basic Training
18 Credits Class 12 Lab 18
Prepares the individual for a career in law enforcement. Introduction to performance objectives outlined by the Ohio Peace Officer Training Council. Upon successful completion the student will be eligible for the Ohio Peace Officer certification exam.

PSCI 260
Interviewing and Interrogation
2 Credits Class 2 Lab 2
Tactics and techniques of the art of interrogation. Emphasizes methods to properly and adequately solicit information to solve crime.

PSCI 270
Police Administration
3 Credits Class 3 Lab 1
Introduction to the administration of policing agencies. Basic organizational and management principles and individual line and staff elements in terms of their purpose, organization and administration.

PSCI 280
Criminalistics II
3 Credits Class 2 Lab 5
Scientific methods of investigation. Recognizing, gathering, preserving, evaluation and processing evidence. Includes the physical technologies used in processing criminal evidence in the police laboratory.

PSCI 281
Criminalistics III
3 Credits Class 2 Lab 5
Procedures used to analyze evidence in the police laboratory. Practical application is used to study the procedures of taking evidence from the crime scene, processing evidence to establish association with known standards and applying results to the criminal justice system.

PSCI 282
Current Topics in Police Science
0.25-5 Credits Class 0.25-5 Lab 0
Current topics and issues as well as new developments in the field of law enforcement are reviewed, studied and discussed.

PSCI 283
Special Operations in Law Enforcement
5 Credits Class 5 Lab 5
Concepts and practices of special operations including communications, team management, team movement and tactics, close quarter firing techniques, and first aid. Prerequisite: Second year Police Science or Human and Correctional Services student.

PSCI 283A
Special Operations in Law Enforcement Level I
1 Credit Class 1 Lab 1
Concepts and practices of special operations and where special operations fall in the law enforcement mission. Prerequisite: Second year Police Science or Human and Correctional Services student.

PSCI 283B
Special Operations in Law Enforcement Level II
1 Credit Class 1 Lab 1
Team management, communications and first aid. Prerequisites: Second year Police Science or Human and Correctional Services student and PSCI 283A.

PSCI 283C
Special Operations in Law Enforcement Level III
1 Credit Class 1 Lab 1
Firearms instruction with primary focus on close quarters firing techniques.
Prerequisites: Second year Police Science or Human and Correctional Services student, PSCI 283A and PSCI 283B.

PSCI 283D
Special Operations in Law Enforcement Level IV
1 Credit Class 1 Lab 1
Training in team movement and tactics. Prerequisites: PSCI 283A, PSCI 283B and PSCI 283C.

PSCI 283E
Special Operations in Law Enforcement-Level V
1 Credit Class 1 Lab 1
Advanced training in team movement and tactics. Prerequisites: PSCI 283A, PSCI 283B, PSCI 283C and PSCI 283D.

PSCI 290
Special Topics in Police Science Technology
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

PSCI 291
Individual Study in Police Science Technology
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

PSCI 292
Field Experience in Police Science
1-4 Credits Class 0 Lab 12-48
On-the-job training in a police facility through special arrangement with an instructor.

PSCI 294
Police Science Cooperative Work Experience
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

PSCI 295
Police Science Practicum Seminar
1-3 Credits Class 1-3 Lab 0
Discussion of job-related concerns and assistance with Practicum. Concurrent with PSCI 296. Prerequisite: Instructor permission.

PSCI 295A
Police Science Practicum Seminar
1 Credit Class 1 Lab 0
Discussion of job-related concerns and assistance with practicum.

PSCI 295B
Police Science Practicum Seminar
1 Credit Class 1 Lab 0
Discussion of job-related concerns and assistance with practicum.

PSCI 296
Police Science Practicum
2-4 Credits Class 1-2 Lab 7-14
The student is placed in a work environment for a minimum amount of time to gain experience before graduation. Concurrent with PSCI 295. Prerequisite: Instructor permission.

PSCI 296A
Police Science Practicum (Communication)
2 Credits Class 1 Lab 7
The student is placed in a work environment for a minimum amount of time to gain experience before graduation.

PSCI 296B
Police Science Practicum (Patrol)
2 Credits Class 1 Lab 7
The student is placed in a work environment for a minimum amount of time to gain experience before graduation.

PSCI 297
Police Science Observation Hour
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

PSCI 298
Police Science Internship
3-6 Credits Class 0 Lab 20-40
On the job training in the workplace of a cooperating agency. Coordinated by an instructor.

PSCI 299
Police Science Internship Seminar
3 Credits Class 3 Lab 0
Discussion of internship experiences, objectives, and evaluation.

Psychology

PSYC 119
Women's Issues
1 Credit Class 1 Lab 0
Issues in the personal and professional growth of women. Each participant will explore individual feelings and attitudes toward these issues.

PSYC 120
Women's Retreat
1 Credit Class 1 Lab 0
Addresses personal growth issues pertaining to women. With activities, films and literary reflections as components of the course, each woman has the opportunity to share as individuals and as group members.

PSYC 121
Women in Transition
3 Credits Class 3 Lab 0
Personal growth issues of women. Exploring and experiencing feelings contributing to women's self-awareness. Women have an opportunity to share themselves as individuals and group members. This course is a substitute for Interpersonal Relationships.

PSYC 122
Life Transitions
3 Credits Class 3 Lab 0
Personal growth issues of men and women based on the premise that new behavior patterns need to be established as we continue through adulthood. Includes exercises in personal development, analysis, reflection and discussion for understanding behavior.

PSYC 123
Women's Lives Around the World
1 Credit Class 1 Lab 0
Themes and diversities in the lives of women in other parts of the world. Guest speakers from other cultural backgrounds will share their experience and knowledge on what it means to be women in their corners of the world.

PSYC 140
Issues in Child Development
4 Credits Class 4 Lab 0
Child development issues are explored within four separate class modules: special needs children, developmentally appropriate discipline, communicating with children and adolescents and infancy.

PSYC 140A
Special Needs Children
1 Credit Class 1 Lab 0
Children's differences and the practices related to meeting special needs. Topics include mental giftedness, developmental delays, physical challenges, learning disabilities and emotional disturbances.

PSYC 140B
Developmentally Appropriate Discipline
1 Credit Class 1 Lab 0
Principles and theories of child discipline based on developmentally appropriate practices.

PSYC 140C
Communicating with Children and Adolescents
1 Credit Class 1 Lab 0
Techniques for communicating with children and adolescents to enhance social and emotional development. Theories of language development will be integrated.

PSYC 140D
Infancy
1 Credit Class 1 Lab 0
Physical, emotional, social and cognitive development in infancy.

PSYC 150 PACE
Introduction to Psychology
3 Credits Class 3 Lab 0
Background, development and current thinking in psychology. Overview of major areas of psychology emphasizing learning, memory, intelligence, consciousness, personality and abnormal behavior.

PSYC 151 PACE
Developmental Psychology
3 Credits Class 3 Lab 0
Physical, emotional, social and intellectual development of an individual from conception to death. Emphasizes normal growth and development of the individual with discussion of genetic and environmental factors that can cause developmental abnormalities.

PSYC 152
Abnormal Psychology
3 Credits Class 3 Lab 0
Characteristics of emotional disturbances, mental illnesses and related social deviance in the United States. Includes identification, diagnosis and treatment of mental disturbances.

PSYC 154
Interpersonal Communications
3 Credits Class 3 Lab 0
Familiarization with interpersonal processes through lecture, discussion and experiential tasks. Information presented is aimed at personal growth and development leading to enhanced relationships.

PSYC 155
Human Sexuality
3 Credits Class 3 Lab 0
A frank discussion course in human sexuality including physiological aspects. Considers the broad spectrum of sexuality including those practices that deviate and those that may be considered pathological. Emphasizes the positive nature of sexuality.

PSYC 160
Behavioral Science Statistics
5 Credits Class 5 Lab 0
Measures of central tendency, variability and correlation. Sampling distributions and statistical inference. Simple tests of hypotheses.

PSYC 162
Child and Adolescent Development
4 Credits Class 4 Lab 0
Physical, emotional, social and intellectual development of an individual from conception through adolescence. Emphasizes normal growth and development of the individual with discussion of genetic and environmental factors that can cause developmental abnormalities. Prerequisite: PSYC 150.

PSYC 290
Special Topics in Psychology
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

PSYC 291
Individual Study in Psychology
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

Real Estate

RE 101
Real Estate Principles
3 Credits Class 3 Lab 0
Introduction to real estate as a business and profession. Includes license, law, ethics, purchase agreements, escrow and title work, advertising, appraisals, sales, market trends, taxes, assessments and the role and influence of real estate in the economy.

RE 102
Real Estate Law
3 Credits Class 3 Lab 0
Legal phase of realty transactions from the listing of the property to the closing of the escrow. Review for owners, brokers, salesmen, mortgage and escrow officers.

RE 103
Real Estate Finance
3 Credits Class 3 Lab 0
Financial instruments, availability of mortgage credit, risk analysis and federal agencies influencing real estate transactions.

RE 104
Real Estate Appraisal
3 Credits Class 3 Lab 0
Real estate appraisal concerns in estimating the value of property. Includes salvage, book, investment, esthetic, sentimental, cash, replacement and market values; how these values are related to real property values and how appraisal values can then be used.

RE 110
Land Title Search
3 Credits Class 3 Lab 0
Information and practice in searching out a title to real estate.

RE 290
Special Topics in Real Estate
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

RE 291
Individual Study in Real Estate
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

Recreation

REC 110
Chainsaw Operation
1 Credit Class 1 Lab 1
Operation and maintenance of chainsaws used in the maintenance and management of recreation and wildlife areas. Designed for individuals unfamiliar with safety and operation techniques.

REC 113
Watercraft Operations and Maintenance
2 Credits Class 1 Lab 3
Use and maintenance of canoes, rowboats, outboard motors and other boating equipment. State laws regarding boating and safety on Ohio waterways. Lifesaving techniques, swamping and uprighting of canoes and rowboats, reentry of craft, canoe strokes, rowboat handling techniques, canoeing and rowboating on flat and moving water and the use of outboard motor and craft.

REC 114
Recreation Employment Seminar
1 Credit Class 1 Lab 1
Speakers from a variety of agencies concerned with the management of natural resources participate in this course. Covers educational requirements of prospective employees, projection of job opportunities and methods of applying for specific jobs.

REC 115
Interpretive Methods
3 Credits Class 2 Lab 3
Interpretive theories and philosophies. Principles and concepts of sound interpretive planning and delivery. Includes various media utilized in the interpretive process.

REC 116
Introduction to Cultural Interpretation
2 Credits Class 1 Lab 3
Interpretive training related to guided programming exhibits, activities, self-guided tours, brochure development, living history techniques, stand up talks and slide programs and audio tape tours.

REC 117
Interpretive Interaction Techniques
2 Credits Class 1 Lab 3
Effective interaction with the audience during a presentation. Non-verbal skills, talents, gimmicks and innovative techniques are used to build a repertoire for naturalists, tour guides, teachers, speakers or anyone who communicates.

REC 118
Historical Perspectives
2 Credits Class 1 Lab 3
Historical research as related to interpretive programming. Examination of the settlement and growth of the Hocking Valley through the use of archival materials, libraries, private collections and other resources.

REC 120
Woodshop
1 Credit Class 0 Lab 3
Development of correct safety habits in the use of power equipment and hand tools. Emphasizes operational safety techniques, daily routine machinery inspections and minor maintenance repairs and personal and group safety rules. The care, use and maintenance of hand tools, power tools and woodworking machinery will be stressed throughout the course.

REC 121
Ohio Trees
2 Credits Class 1 Lab 3
Identification of Ohio trees in the winter condition by sight and by using keys, buds, twigs, fruit, bark and growth habitats.

REC 122
Game Animals of East Central U.S.
3 Credits Class 2 Lab 3
Life history, habitat and distribution of common game animals of the East Central United States. Includes sexing and ageing techniques, waterfowl identification, track and scat identification, food analysis, study of skin preparation and small mammal identification.

REC 123
Cartography
2 Credits Class 1 Lab 3
Theoretical understanding of maps and map making are combined with technical exercises designed to help the student manipulate, enlarge and transcribe maps for other uses.

REC 124
Adaptive Recreation
3 Credits Class 1 Lab 6
Developing recreational activities for persons with handicapping conditions. Training occurs by working directly with children and adults within schools and special facilities.

REC 130
Recreation Area Equipment
1 Credit Class 1 Lab 1
Maintenance and operation of tractors and farm machinery used in wildlife areas. Operational skills are designed for individuals unfamiliar with safety and operational knowledge of tractors and farm machinery use.

REC 131
Field Biology
3 Credits Class 2 Lab 3
Identification of the spring flowering plants; life histories, habitat requirements and field identification of reptiles, aquatic insects and amphibians. Includes an introduction to fresh water ecology.

REC 132
Geology
3 Credits Class 2 Lab 3
Introduction to the scope and purpose of the science of geology. Basic considerations and minerals, the conditions and processes that form the earth and how these earth forming processes affect man and man's use of the earth.

REC 134
Environmental Issues
3 Credits Class 2 Lab 3
Human influence on the environment including land, water, air, hazardous waste, noise and population. Awareness, observation and evaluation of these problems are included.

REC 136
Wildlife Investigation Techniques
2 Credits Class 1 Lab 3
Techniques used to evaluate wild game populations. Includes auditory surveys, trapping, habitat evaluation investigations, photographic techniques, project planning and reporting, use of wildlife literature, preservation of biological materials and improvement of field habits.

REC 140
Camp Counseling
3 Credits Class 3 Lab 0
Needs of summer youth camps and resident outdoor programs in the public schools. Responsibilities as camp counselors to the camp director, campers, parents, other counselors and the program.

REC 141
Nature Center and Museum Operations
2 Credits Class 1 Lab 7
Practical, hands-on experience in nature centers and museums. Landscaping, building restoration, exhibitory and programming tasks included. Prerequisites: REC 115 and REC 150.

REC 142
Recreation for Special Populations
3 Credits Class 2 Lab 3
Knowledge and skills needed to work confidently and effectively with special populations such as those with national and cultural differences, cultural disadvantages, physical and mental disabilities and the elderly. Focuses on working in a recreational hospitality setting.

REC 150
Introduction to Interpretation
2 Credits Class 0 Lab 6
Orientation to the field of interpretation. Field trips to interpretive facilities to observe professional interpreters.

REC 160
Survival Techniques for Wildlife Areas
3 Credits Class 2 Lab 3
Introduction to wilderness survival techniques including compass and map reading, construction of emergency shelters, controlled fires, personal hygiene in the wilderness setting, preparation of native foods, survival medical treatment and health care techniques.

REC 161
Ichthyology
3 Credits Class 2 Lab 3
Identification, ecology and morphology of Ohio fish species. Includes field and laboratory identification, use of taxonomic keys, fish community sampling methods and community assessment indices.

REC 200
Wildlife Field Research
3 Credits Class 1 Lab 6
Participants function as a team while collecting data for wildlife research projects. Field work may include radiotelemetry, live-trapping, raptor hacking, plant species inventories and migratory bird banding. Prerequisites: REC 122 and REC 136 or instructor permission.

REC 209
Terrestrial Ecology
3 Credits Class 2 Lab 3
Relationship and components of Ohio's terrestrial ecosystems. Lab and field work includes the measurement and analysis of the various communities with the flora, fauna, soil, light and moisture.

REC 210
Woodland Ecology
3 Credits Class 2 Lab 3
Local plant communities, succession and forest types, major North American vegetation types and the ecology of Ohio. Analysis of vegetation types in various communities by the use of plot surveys and line transects. Prerequisite: NR 111 or REC 121.

REC 213
Fish Ecology
3 Credits Class 2 Lab 3
Identification, ecology and morphology of fish. Influence of aquatic organisms on abundance of fish, recognition of various aquatic habitat types and methods of sampling fish populations.

REC 215
Wildlife Management I
3 Credits Class 2 Lab 3
Theory and techniques of wildlife management with emphasis on forest game. Includes habitat evaluation, habitat management planning, species management, censusing, population dynamics, ageing and sexing, wildlife and waterfowl identification. Prerequisite: REC 122.

REC 217
Aquatic Ecology
3 Credits Class 2 Lab 3
Aquatic ecosystems including lakes, rivers and wetlands. Emphasis on hydrology, interrelationships and identification of major communities and community assessment.

REC 221
Fish Management I
3 Credits Class 2 Lab 3
Physical, chemical, biological and sociological factors which influence fisheries and their management. Techniques of monitoring and influencing the factors are practiced in laboratory. Prerequisites: REC 161 and REC 217.

REC 222
Recreation Area Maintenance
2 Credits Class 1 Lab 3
Planning, development, operation and management of outdoor recreation facilities such as trails, campgrounds, picnic areas and water areas. Prerequisites: REC 110, REC 120 and REC 130.

REC 226
Development and Design of Outdoor Studies Situations
3 Credits Class 2 Lab 3
Survey of existing and potential outdoor education sites. Evaluating areas for safety and identifying activities that best show the ecological concepts of the site. Prerequisite: NR 264 or REC 236 or instructor permission.

REC 232
Park Landscaping
3 Credits Class 2 Lab 3
Horticultural requirements associated with operation of park wildlife areas. Includes soils, fertilizing, liming, seeding, transplanting large trees and shrubs, grafting, pruning, pesticides and their control and lawn establishment.

REC 233
Ornithology
3 Credits Class 2 Lab 3
Study of local birds including both migrants and residents. Habitat requirements, nesting habits, general behavioral patterns and anatomical characteristics are studied.

REC 234
Archaeology
3 Credits Class 3 Lab 1
The goal of archaeology is to better understand the present by understanding the past through examining the reciprocal effects of man and technology.

REC 235
Guided Interpretive Activities
2 Credits Class 1 Lab 3
Principles and practices necessary to prepare and conduct guided visitor activities such as nature walks and slide programs. Interpretive principles, professionalism and communication skills are discussed and practiced in classroom and field situations.

REC 236
Exhibit and Visitor Center Design
2 Credits Class 1 Lab 3
Graphic and interpretive principles used to effectively communicate in interactive and non-interactive exhibits. Principles of lighting, symmetry, flow and labeling are emphasized. Prerequisite: REC 115 or instructor permission.

REC 237
Self Guided Interpretive Activities
2 Credits Class 1 Lab 3
Self-guiding interpretive activities including signs and labels, trails, auto tours, tape recordings, and interpretive publications. Emphasizes design and layout of self-guiding systems as well as production of support media. Prerequisite: REC 115 or instructor permission.

REC 238
Fish Management II
4 Credits Class 2 Lab 6
Methods and techniques used in sampling fish populations and aquatic environments. Evaluation and application of fish management techniques. Prerequisite: REC 221.

REC 239
Wildlife Management II
4 Credits Class 3 Lab 4
Techniques of manipulating wildlife populations through management. Includes field work in public wildlife areas. Prerequisites: REC 110, REC 122, REC 130 and REC 215.

REC 240
Environmental Enforcement Problems
2 Credits Class 2 Lab 2
Specific problems in natural resources enforcement related to air, water, forestry, wildlife and reclamation. Individual and corporate violations are studied.

REC 241
Fish Hatchery Management
4 Credits Class 2 Lab 6
Aspects of fish culture including warm water, cool water and cold water species. Emphasizes nutrition, disease and water quality. Prerequisites: NR 131, REC 213 and REC 221.

REC 243
Living History Techniques
2 Credits Class 1 Lab 3
Processes of historical interpretation which utilizes third and first-person techniques. It is a period research and characterization course and requires each participant to develop a character which is in keeping with the period and assigned theme. The importance of research in revealing the people, lifestyles, mannerisms, dress, industry, education, medicine, politics and religion of the period is emphasized. Prerequisites: REC 115 and REC 118.

REC 244
Land Management and Soils
3 Credits Class 2 Lab 3
Landscape management techniques and the principles of soil science are combined to provide a comprehensive perspective of natural resource management as it relates to landscaping, soil conservation and soil management.

REC 245
Wildlife Investigation Techniques II
1 Credit Class 0 Lab 3
Offered to those who completed REC 136 and have excelled in field data collection techniques and seek to enhance supervisory skills. Prerequisite: REC 136 or instructor permission.

REC 251
Big Game and Furbearer Management I
3 Credits Class 1 Lab 6
Theory and techniques of wildlife management as it pertains to big game and furbearing mammals, particularly species indigenous to Ontario, Canada. Emphasizes practical data collection and measurement of individual specimens and populations. Prerequisites: REC 122 and REC 215 or instructor permission.

REC 252
Big Game and Furbearer Management II
3 Credits Class 1 Lab 6
Managing big game and furbearers indigenous to Ontario. Emphasizes fur handling and management of the fur resource including humane care and treatment of furbearers. Moose and white-tailed deer harvest will be examined in terms of big game species. Prerequisites: REC 122 and REC 215 or instructor permission.

REC 269
Field Ichthyology: Lotic Investigations
3 Credits Class 1 Lab 6
Field operations including the sampling of river habitats with electroshocking apparatus. Field work will extend to detailed note taking and habitat assessment. Laboratory work will include preservation and cataloging specimens. Prerequisite: REC 238.

REC 270
Field Ichthyology: Lentic Investigations
3 Credits Class 1 Lab 6
Field operation including sampling of oligiotropitic systems of northern environments. Field work includes electroshocking, gill netting, trap netting, water chemistry and habitat evaluation. Water chemistry, habitat evaluation and biostatistics. Prerequisite: REC 238.

REC 271
Fish Disease/Pathology
1 Credit Class 1 Lab 2
Fish disease and pathology. Focuses on common cool and warm water pathogens.

REC 290
Special Topics in Recreation and Wildlife
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

REC 291
Individual Study in Recreation and Wildlife
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

REC 292
Field Experience in Recreation and Wildlife
1-3 Credits Class 0 Lab 12-36
On-the-job training in a recreation and wildlife facility through special arrangement with an instructor.

REC 294
Recreation and Wildlife Cooperative Work Experience/Seminar
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week. Concurrent with REC 295. Prerequisites: REC 110, REC 120 and REC 130.

REC 295
Recreation and Wildlife Practicum Seminar
1-3 Credits Class 1-3 Lab 0
Discussion of job-related concerns and assistance with practicum. Concurrent with REC 294. Prerequisites: REC 110, REC 120 and REC 130.

REC 296
Practicum in Recreation and Wildlife
1-6 Credits Class 0 Lab 7-42
The student is placed in a work environment for a minimum amount of time to gain experience before graduation.

REC 297
Recreation and Wildlife Observation Hour
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

REC 298
Recreation and Wildlife Internship
3-6 Credits Class 0 Lab 20-40
On the job training in the workplace of a cooperating agency. Coordinated by an instructor.

REC 299
Recreation and Wildlife Internship Seminar
3 Credits Class 3 Lab 0
Discussion of internship experiences, objectives, and evaluation.

Retail Marketing Management

RET 100
Retail Management
3 Credits Class 2 Lab 3
Introduction to the retail industry from a management perspective. Structure and opportunities in retailing, franchising, location and layout, organization, sales promotion, customer services, merchandise management and control, buying procedures, mark-up, pricing, stock turnover and analysis of current merchandising policies.

RET 210
Retail Buying
3 Credits Class 2 Lab 3
The buying function and its place within the retail organization. Resources, product differentiation, buying techniques and practices, merchandising at different levels and pricing. Prerequisite: BUS 245.

RET 220
Advertising
3 Credits Class 3 Lab 2
External advertising for a retail operation covering basic advertising areas including television, radio, newspaper, magazine, direct mail and outdoor. Concentration on practical matters of budgeting, media selection, copywriting, layout and design, campaign construction and market segmentation. Prerequisite: BUS 110.

RET 230
Retail Store Operations
1-5 Credits Class 1-5 Lab 0
Daily operations in retail institutions. Emphasizes the role and responsibility of the manager.

RET 235
Principles of Apparel Management
3 Credits Class 3 Lab 2
Basic principles in textiles and fashion. Provides a foundation for understanding the apparel industry and applying its concepts to the business world.

RET 290
Special Topics in Retail Marketing Management
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

Sawmill/Lumber Grading

SLG 110
Lumber Grading I
4 Credits Class 2 Lab 6
Understanding and use of the rules of the National Hardwood Lumber Association (NHLA). Topics include lumber tally and handling techniques, wood identification and upgrading of lumber.

SLG 111
Log Grading and Scaling
2 Credits Class 1 Lab 3
Measurement and quality evaluation of hardwood sawlogs as practiced in the hardwood industry.

SLG 130
Lumber Grading II
12 Credits Class 6 Lab 18
Develops increased speed and accuracy while applying NHLA special grades, species grades, species identification and lumber upgrading techniques. Lumber handling, inventory and storage techniques are explored as well as lumber markets and marketing. Prerequisite: SLG 110.

Security and Police Sciences

SEPS 100
Introduction to Security
3 Credits Class 3 Lab 0
Historical, philosophical and legal bases of the security profession. A review of the various types of security roles.

SEPS 106
Retail Security
1-5 Credits Class 1-5 Lab 0
Introduction to the responsibility of security departments at institutions such as hospitals, schools, museums and other public buildings. Includes analysis of special security problems encountered in these institutional settings.

SEPS 201
V. I. P. Protection
1 Credit Class 1 Lab 2
Executive protection functions and responsibilities. Includes special areas of security procedures, terrorism, authority, communication, emergency procedures, post, patrols, advances and travel.

SEPS 205
Correctional Security
3 Credits Class 3 Lab 0
Maintaining security in a criminal justice setting. Focus on the relationship between security and treatment, various roles of security within criminal justice agencies and security technology. Security practices to be studied include theory of searches, restraining procedures and offender supervision. Prerequisite: CORR 100.

SEPS 206
Industrial Security
1-5 Credits Class 1-5 Lab 0
Legal aspects of patrol functions, gate duty, fixed-post loss prevention and special situations encountered in the industrial setting.

SEPS 207
Bank Security
3 Credits Class 3 Lab 0
Security measures for banks and other financial institutions and the rules establishing minimum standards under current federal and state legislation.

SEPS 208
Private Security
4 Credits Class 3 Lab 3
A comprehensive overview of the private security function including investigative skills, legal considerations, court procedures and disaster planning.

SEPS 211
Security Intelligence
3 Credits Class 3 Lab 0
Developing an intelligence unit within a law enforcement agency as well as the constitutional questions related to collecting and dispersing intelligence information.

SEPS 250
Private Security Training
12 Credits Class 8 Lab 12
Performance objectives outlined by the Ohio Peace Officer Training Council required for obtaining certification as a private security officer in the state of Ohio. Introduction to laws, policies, procedures and techniques necessary to become employed and practice successfully as a private security officer in private or public institutions.

SEPS 270
Security Administration
3 Credits Class 3 Lab 0
Principles of supervision and leadership as well as an exploration of various administrative and organizational approaches to security organizations and operations.

SEPS 274
Security Research
3 Credits Class 3 Lab 0
Overview of existing research in the security field and its application to present and future security operations. Analysis of risk management through a security needs assessment survey.

SEPS 290
Special Topics in Security
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

SEPS 291
Individual Study in Security
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

SEPS 292
Field Experience in Security
1-4 Credits Class 0 Lab 12-48
On-the-job training in a security facility through special arrangement with an instructor.

SEPS 294
Security Cooperative Work Experience
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

SEPS 295
SEPS Practicum Seminar
1-3 Credits Class 1-3 Lab 0
Discussion of job-related concerns and assistance with practicum.

SEPS 296
Security Practicum
1-6 Credits Class 0 Lab 7-42
The student is placed in a work environment for a minimum amount of time to gain experience before graduation.

SEPS 297
Security Observation Hour
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

Sociology

SOCI 120
Parenting Issues
1 Credit Class 1 Lab 0
Focus on issues in parenting. Attention is given to acquiring skills to improve parent-child relationships.

SOCI 121
Parenting
3 Credits Class 3 Lab 0
Parenting issues and parenting skills. Through an overview of child development, the student is exposed to how both parent and child shape one another's behavior. Primary focus on interactional and social patterns in parent-child relationships.

SOCI 135
Social Problems
1 Credit Class 1 Lab 0
Focus on social issues that confront modern American society. Issues are identified, defined and analyzed.

SOCI 150
Cultural Diversity Issues
1-2 Credits Class 1-2 Lab 0
Introduction to cultural diversity in the workplace. Provides communication skills to relate to people of diverse cultural backgrounds.

SOCI 151
Intercultural Experience
2 Credits Class 1 Lab 3
History and culture of another country prior to the travel experience. Includes a visit to another country to learn more about the country, people and culture.

SOCI 160
Introduction to Sociology
3 Credits Class 3 Lab 0
Aspects of human society and social behavior. Theory, current thinking and contemporary social issues are the focus for discussion. Includes topics in normative and deviant behavior, social institutions and social stratification.

SOCI 161
Sociology of Family Living
3 Credits Class 3 Lab 0
Examines marriage and family as social institutions in our society. Family composition, gender and sex roles, foundations of marriage, methods of communication, life cycles of the family, parenting and family dysfunctions. Includes cultural comparison of various family and marriage forms.

SOCI 162
Social Issues
3 Credits Class 3 Lab 0
Social issues and social problems confronting American society. Topics include consideration of how social issues are identified, defined, analyzed and resolved. Application of critical reading and thinking skills to a variety of social issues/ problems including homosexuality, drug abuse, violence, health care, poverty, the environment, racism, sexism and the family.

SOCI 165
Cross Cultural Studies
3 Credits Class 3 Lab 0
Similarities and differences of people from various racial and cultural heritages. Includes discussion of people from diverse groups living in the United States.

SOCI 166
Appalachian Ohio Culture
3 Credits Class 3 Lab 0
Historical and social influences that have shaped Appalachian culture, particularly in the Ohio Appalachian region. Emphasizes history of the Ohio Appalachian region, various ethnic migrations and social groupings in the area, regional culture and significant industries in the area.

SOCI 169 PACE
Human Relations in Organizations
3 Credits Class 3 Lab 0
Concepts, skills and techniques which relate to the human aspects of work. Emphasis on human interaction, dynamic factors, personal development as well as legal and ethical issues in the workplace.

SOCI 290
Special Topics in Sociology
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

SOCI 291
Individual Study in Sociology
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

Supervision and Leadership

SUPR 135
Supervision and Leadership Skills
1 Credit Class 1 Lab 0
Skills needed in effective leadership including incorporating these skills into one's own styles of leadership.

SUPR 230
Dynamic Leadership I
3 Credits Class 3 Lab 0
Time management, new developments in leadership, leadership practice and theory, handling change, minimizing stress, power structures and other practical discussion terms.

SUPR 231
Dynamic Leadership II
3 Credits Class 3 Lab 0
Continuation of SUPR 230.

SUPR 232
Dynamic Leadership III
3 Credits Class 3 Lab 0
Leadership training emphasizing self and staff development techniques and leadership in a changing world of work.

SUPR 235
Supervision and Leadership
3 Credits Class 3 Lab 0
Designed for managers and supervisors who enter at the first line of management and supervision. Introduces the managerial processes of planning, organizing, staffing, directing and controlling.

SUPR 236
Outdoor Leadership Skills
1 Credit Class 1 Lab 0
Designed for the outdoor leader. Enables both the experienced and inexperienced leader to identify, develop and successfully incorporate leadership skills into the leader's own style of leadership. Focuses on definable leadership skills and how they are interrelated to develop a practical leadership style.

SUPR 237
Supervision Skills for the 90's
0.5-3 Credits Class 0.5-3 Lab 0
Perspectives on the supervisor's changing role with regard to organizational mission and supervisory styles. Strategies and skills for effectively communicating, developing teams, working with varying personality styles, motivating staff and handling difficult employees.

SUPR 237A
Supervision Skills Overview
0.5-1 Credit Class 0.5-1 Lab 0
Perspectives on the supervisor's changing role with regard to organizational mission and supervisory styles. Strategies and skills for effectively communicating, developing teams, working with varying personality styles, motivating staff and handling difficult employees.

SUPR 237B
Supervision Skills Application
0.5-1 Credit Class 0.5-1 Lab 0
Applications of supervisor skills from SUPR 237A. Examination of the participant's own organization in relation to supervisor skills.

SUPR 237C
Supervision Skills Project
0.5-1 Credit Class 0.5-1 Lab 0
Examination of topics in SUPR 237A. Participants develop a project through research, interviews, travel, community or work site investigation or other development initiatives.

SUPR 290
Special Topics in Supervision and Leadership
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

SUPR 291
Individual Study in Supervision and Leadership
0.5-5 Credits Class 0.5-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

Timber Harvesting

THS 110
Tree Identification
2 Credits Class 1 Lab 3
Field identification of trees native to Ohio, particularly those of commercial value. Important commercial species in the United States, but not native to Ohio, are included.

THS 111
Diesel, Gas, Small Engine Repair
3 Credits Class 2 Lab 3
Routine maintenance and light repair of two and four cycle internal combustion engines.

THS 112
Timber Harvesting Skills I
6 Credits Class 2 Lab 12
Use, operation, safety and maintenance of logging machinery including rubber-tired skidder, bulldozer and knuckleboom loader.

THS 120
Hydraulics and Mechanical Systems Maintenance and Repair
3 Credits Class 2 Lab 3
Theory, design and function of hydraulic systems and drive chain components of forest harvesting machinery.

THS 121
Welding
2 Credits Class 1 Lab 3
Joining and cutting metals using a gas and electric welding apparatus.

THS 122
Timber Harvesting Skills II
6 Credits Class 2 Lab 12
Continuation of THS 111. Prerequisite: THS 112.

THS 124
Advanced Welding
3 Credits Class 2 Lab 3
Designed for maintenance trades and kindred workers who are familiar with the basics of welding and fabrication. Advanced techniques of welding utilizing MIG, electric arc and oxyacetylene equipment. Shop set-up and applicable safety procedures are also included. Prerequisite: THS 121 or instructor permission.

THS 130
Timber Harvesting Skills III
9 Credits Class 2 Lab 22
Development of entry-level logging skills utilizing chainsaws, crawler tractor, rubber-tired skidder, knuckleboom loader and other tools, equipment and supplies involved in producing and marketing logs and pulpwood. Prerequisite: THS 112 or THS 122.

THS 131
Timber Harvesting Seminar
3 Credits Class 3 Lab 0
Harvesting costs and techniques applicable to eastern hardwood logging including raw material procurement and product marketing.

THS 290
Special Topics in Timber Harvesting
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

THS 291
Individual Study in Timber Harvesting
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

THS 292
Field Experience in Timber Harvesting
1-4 Credits Class 0 Lab 12-48
On-the-job training in a timber harvesting facility through special arrangement with an instructor.

THS 294
Timber Harvesting Cooperative Work Experience
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

THS 295
Timber Harvesting Practicum Seminar
1-3 Credits Class 1-3 Lab 0
Discussion of job-related concerns and assistance with practicum.

THS 296
Timber Harvesting Practicum
1-6 Credits Class 0 Lab 7-42
The student is placed in a work environment for a minimum amount of time to gain experience before graduation.

THS 297
Timber Harvesting Observation Hour
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

THS 298
Timber Harvesting Internship
3-6 Credits Class 0 Lab 20-40
On the job training in the workplace of a cooperating agency. Coordinated by an instructor.

THS 299
Timber Harvesting Internship Seminar
3 Credits Class 3 Lab 0
Discussion of internship experiences, objectives, and evaluation.

Travel and Tourism

TRAV 101
Festival Operations
1 Credit Class 1 Lab 1
Organization and operation of a visitor information network on the grounds of the annual Paul Bunyan Show. Emphasizes promotional skills and positive public relations.

TRAV 110
Travel Agency Office Procedures
3 Credits Class 3 Lab 2
Completing handwritten airline tickets, tour orders and refund forms. Tracking flow of the money collected from sales, computation of commission and the agency income statement showing income expenses resulting in net profits. Prerequisites: TRAV 131, TRAV 150 and TRAV 270.

TRAV 131
Airline Reservations
3 Credits Class 3 Lab 1
Introduction to System One computerized reservations systems used within the travel industry. Through the use of a live system the student gains an understanding of the computerized system of basic reservations and PNR creation. Prerequisite: TRAV 150.

TRAV 134
Destination Geography
3 Credits Class 3 Lab 1
Travel and tourism product knowledge and fundamental destination geography.

TRAV 135
Tourism Promotion
3 Credits Class 3 Lab 1
Identifies and interprets the tourism system including career opportunities, current industry research and current trends and topics for tourism in the 90's.

TRAV 150
Introduction to Travel Industry
3 Credits Class 3 Lab 2
Operations of the travel agency from job function to use of reference materials. Also investigates tour operation, OAG's, reservations, record-keeping and tariffs.

TRAV 152
Introduction to Ecotourism
0.5-2 Credits Class 0.5-2 Lab 0
Introduction to the field of ecotourism. Principles and practices of attracting and serving customers who desire an ecotourism experience. The natural resources perspective as well as tourism and hospitality principles are studied.

TRAV 154
Travelogue Central U.S.A.
3 Credits Class 3 Lab 2
Geography, history, economy and culture that comprise the various regions of the central United States. Emphasizes tourist attractions and scenic beauty.

TRAV 155
Travelogue Eastern U.S.A.
3 Credits Class 3 Lab 2
Attractions, points of interest and the most popular cities in the states east of the Mississippi.

TRAV 156
Travelogue Western U.S.A.
3 Credits Class 3 Lab 2
Familiarization with the western United States through research into attractions, points of interest and tourism promotion.

TRAV 157
Exploring Asia and the Pacific
3 Credits Class 3 Lab 2
Geography, history, economy and culture of Asia and the South Pacific. Utilization of tour planning and geographical skills in arranging and developing individual and group tours to this destination.

TRAV 160
Tour Development
3 Credits Class 3 Lab 1
Techniques and skills for planning, directing and promoting tours.

TRAV 177
Advanced Reservations
3 Credits Class 3 Lab 1
Domestic and international reservations and ticketing, pricing and fare rules as well as booking car rentals and hotel accommodations. Prerequisite: TRAV 270.

TRAV 190
Exploring Ohio
2 Credits Class 2 Lab 1
Tourist destinations of Ohio. Historical and cultural background, sightseeing attractions, major highways and transportation facilities to various regions are discussed.

TRAV 191
Promoting Ohio
2 Credits Class 2 Lab 1
Techniques and procedures required to promote tourism destinations of specific locations in Ohio. Prerequisite: TRAV 190.

TRAV 201
Festival Management
1 Credit Class 1 Lab 1
Development of management skills while supervising and aiding in the training and scheduling of students enrolled in TRAV 101.

TRAV 240
Computer Reservation Systems
2 Credits Class 2 Lab 2
Computer airline reservation systems, training and practices of Apollo, Sabre and other systems. Prerequisites: TRAV 131, TRAV 177 and TRAV 270.

TRAV 250
Sales for Travel
3 Credits Class 3 Lab 1
Sales and selling of travel including techniques for marketing group tours to diverse groups of individuals and methods for soliciting business. Prerequisites: TRAV 150 and COMM 130.

TRAV 260
Convention and Seminar Management
2 Credits Class 2 Lab 2
Organization and planning for meetings and conventions including budget, site selection, menu and program planning and marketing the event.

TRAV 264
Hawaii, Alaska and Canadian Provinces
3 Credits Class 3 Lab 2
Domestic/international aspects of the travel industry in relating to travel to Hawaii, Alaska and Canada. Provides an overview of the geography, history, economy and culture and emphasizes attractions and scenic beauty of the most popular destinations.

TRAV 265
Mexico, Caribbean, Central and South America
3 Credits Class 3 Lab 2
Domestic/international aspects of the travel industry in relation to Mexico, Caribbean and the Americas. Geography, arranging transportation via air and other modes and developing tours to popular tourist destinations.

TRAV 266
European Travel
1-3 Credits Class 1-3 Lab 0-2
Geography, culture and popular travel destinations of the European nations for the purpose of planning and developing individual and group tours.

TRAV 266A
Travelogue: British Isles
1 Credit Class 1 Lab 1
Geography, culture and popular travel destinations for the purpose of planning and developing individual and group tours.

TRAV 266B
Travelogue: France
1 Credit Class 1 Lab 1
Geography, culture and popular travel destinations for the purpose of planning and developing individual and group tours.

TRAV 266C
Travelogue: Eastern Europe
1 Credit Class 1 Lab 1
Geography, culture and popular travel destinations for the purpose of planning and developing individual and group tours.

TRAV 267
Self Directed Learning in Travel
2 Credits Class 2 Lab 2
Individual or group work in an area in which the student desires to expand knowledge. Involves organizing a project and field trip. Emphasizes effective decision making and understanding of the current tourism trends in the industry.

TRAV 270
Intermediate Reservations
3 Credits Class 3 Lab 1
Discounted air fares and qualifying rules. Procedures for booking car rentals and hotels and use of System One computerized reservation system. Prerequisite: TRAV 131.

TRAV 280
Tour Directing
3 Credits Class 2 Lab 3
Techniques and skills necessary for directing a tour and acting as a step-on guide for a certain area. Prerequisite: COMM 130.

TRAV 281
Concierge
3 Credits Class 3 Lab 1
Providing guest services to customers in specific locations. Practical application for providing personal information is incorporated.

TRAV 282
Travel Show Management
1 Credit Class 1 Lab 0
Marketing experience, detailed consumer travel show set-up, knowledge of local and statewide travel attractions. Includes working with the Convention and Visitor's Bureau.

TRAV 290
Special Topic in Travel and Tourism
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of specific topic(s) by participants in a group.

TRAV 291
Individual Study in Travel and Tourism
1-5 Credits Class 1-5 Lab 0
Individual study for research. Topics are arranged on an individual basis with instructor permission.

TRAV 292
Field Experience in Travel and Tourism
1-4 Credits Class 0 Lab 12-48
On-the-job training in a travel and tourism facility through special arrangement with an instructor.

TRAV 294
Travel and Tourism Cooperative Work Experience
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

TRAV 295
Travel Practicum Seminar
1-3 Credits Class 1-3 Lab 0
Discussion of job-related concerns and assistance with practicum. Prerequisite: TRAV 150.

TRAV 296
Travel Industry Practicum
2-4 Credits Class 1-3 Lab 7-21
Students apply classroom experience at a travel-related or tourism business for 80 - 160 hours. Prerequisites: TRAV 131 and TRAV 150.

TRAV 297
Travel and Tourism Observation Hour
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

TRAV 298
Travel and Tourism Internship
3-6 Credits Class 0 Lab 20-40
On-the-job training in the workplace of a cooperating agency coordinated by an instructor.

TRAV 299
Travel and Tourism Internship Seminar
3 Credits Class 3 Lab 0
Discussion of internship experiences, objectives, and evaluation.

Tree Care

TRC 110
Climbing
3 Credits Class 1 Lab 6
Orientation to basic climbing equipment and its proper use in tree forestry. Saddles, climbing ropes and knots for the beginning climber. Concurrent with TRC 112, TRC 113 and TRC 115.

TRC 112
Mechanics of Tree Care
3 Credits Class 2 Lab 3
Common problems affecting trees and treatment of these problems including tree surgery. Concurrent with TRC 110, TRC 113 and TRC 115.

TRC 113
Tree Care Equipment
3 Credits Class 2 Lab 3
Selection, use and maintenance of hand tools used in tree surgery and arboriculture. Operation and maintenance of power equipment including chainsaws, chipper trucks, chipper, spray rig and stump grinder. Concurrent with TRC 110, TRC 112 and TRC 115.

TRC 115
Climbing II
3 Credits Class 2 Lab 3
Development of climbing skills with an emphasis on efficient movement in the trees, rigging and lowering techniques for pruning, topping and tree removal. Use of the chainsaw in trees. Concurrent with TRC 110, TRC 112 and TRC 113.

TRC 117
Landscape Maintenance Lab
6 Credits Class 0 Lab 18
Landscape maintenance tasks including care of lawns, trees, shrubs and flowers; repair or retaining walls, fences, walks and bridges; draining systems; and painting.

TRC 118
Landscape Maintenance Lab II
6 Credits Class 0 Lab 18
Continuation of TRC 117. Prerequisite: TRC 117.

TRC 120
Landscaping Fundamentals
1 Credit Class 1 Lab 0
Horticultural requirements of residential and recreational areas. Analyzing the landscape to fit an individual's needs, whether to aesthetically enhance the area or to solve a problem. Investigations involving soils, lawn establishment, site modification, cost estimation for landscape construction, principles of landscape design, maintaining the landscape design and ornamentals.

TRC 122
Advanced Tree Care Mechanics
3 Credits Class 2 Lab 3
Diagnosis of tree problems to develop appropriate treatment techniques. Tree problems diagnosed include construction, cable and lightning damage. Identification of trees that are likely to cause structural and damage to buildings and safely removing hazardous trees.

TRC 123
Climbing III
3 Credits Class 2 Lab 3
Practice the climbing skills learned in TRC 110 and TRC 115 to improve speed, safety and efficiency. Includes secured footlocks, use of pulleys, redirectionals, false crotches and other innovative climbing techniques.

TRC 124
Rigging
3 Credits Class 2 Lab 3
Application of mountaineering and rescue rigging techniques to safely work trees. Use of pulleys, lowering devices, z-drags, slings, prussick loops, slide lines and other rigging systems.

TRC 290
Special Topics in Tree Care
0.25-5 Credits Class 0.25-5 Lab 0
Structured exploration of a specific topic(s) by participants in a group.

TRC 291
Individual Study in Tree Care
1-5 Credits Class 1-5 Lab 0
Individual study or research. Topics are arranged on an individual basis with instructor permission.

TRC 292
Field Experience in Tree Care
1-4 Credits Class 0 Lab 12-48
On-the-job training in a tree care facility through special arrangement with an instructor.

TRC 294
Tree Care Cooperative Work Experience
1-4 Credits Class 0 Lab 10-40
An on- or off-campus paid work experience coordinated by a faculty member with at least one on-site visit during the quarter. Each student must be enrolled in an on-campus seminar. One credit is awarded for a minimum of ten clock hours of work experience scheduled during a standard work week.

TRC 295
Tree Care Practicum Seminar
1-3 Credits Class 1-3 Lab 0
Discussion of job-related concerns and assistance with practicum.

TRC 296
Practicum in Tree Care
1-6 Credits Class 0 Lab 7-42
The student is placed in a work environment for a minimum amount of time to gain experience before graduation.

TRC 297
Tree Care Observation Hour
1-3 Credits Class 0 Lab 15-45
Participation in an educational experience as observers of practitioners representative of the occupational area. The student may participate at times in the actual work activity.

TRC 298
Tree Care Internship
3-6 Credits Class 0 Lab 20-40
On the job training in the workplace of a cooperating agency. Coordinated by an instructor.

TRC 299
Tree Care Internship Seminar
3 Credits Class 3 Lab 0
Discussion of internship experiences, objectives, and evaluation.

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- Materials
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- Dietetic
- Health Information Management
- Massage Therapy
- Nanny
- Medical Assistant
- Nursing Level I (Practical Nursing)
- Nursing Level II (Associate Degree)
  - (For graduates of approved practical nursing schools)
- Physical Therapist Assistant *

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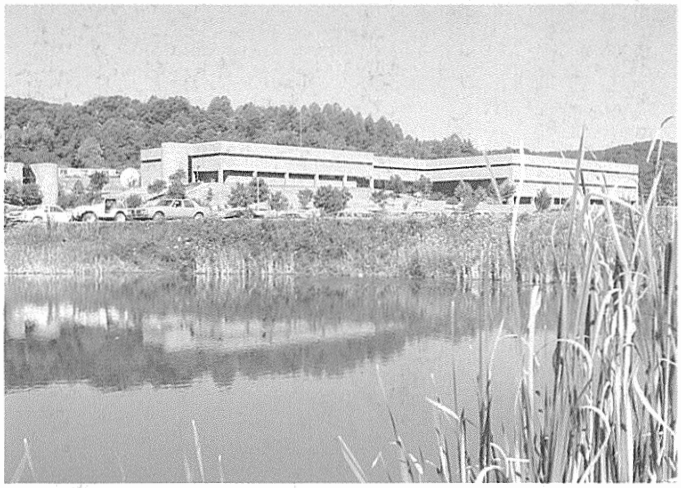
- Ecotourism
- Forestry
- Geographics
- Recreation and Wildlife
  - Back Country Horsemanship
  - Fish and Wildlife Management
  - Interpretive Services
  - Ranger Services
- Timber Harvesting
- Tree Care

Public Safety Services Technologies
- Emergency Medical
- Fire and Emergency Services
- Human and Correctional Services
  - Juvenile Corrections
- Police Science



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