

# SHAWNEE STATE COMMUNITY COLLEGE

1978-79

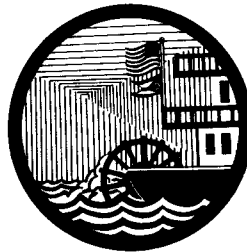


# **SHAWNEE STATE COMMUNITY COLLEGE**

## **1978 - 1979**

A State of Ohio Assisted Two-Year Community College Offering  
Both Academic and Technical Programs Through an

**Associate of Arts Degree**  
**Associate of Applied Business Degree**  
**Associate of Applied Science Degree**  
**Associate of Individualized Studies Degree**  
**Selected One Year Programs**



## **SHAWNEE STATE COMMUNITY COLLEGE**

940 Second Street  
Portsmouth, Ohio 45662  
Phone 614-354-3205

"In compliance with section 504 of the rehabilitation act of 1973, Shawnee State Community College does not discriminate against handicapped persons, in employment or in admission or access to any of its programs or activities." (Arnold McCoy, Coordinator of Services for the Handicapped)

# MAJORS OFFERED AT SHAWNEE STATE COMMUNITY COLLEGE

## ASSOCIATE OF ARTS DEGREE — University Parallel or Transfer Programs

### Teacher Education

Elementary Education

Special Education

Secondary Education

Biology — General Science

Chemistry — General Science

Communications — English Emphasis

Communications — Speech Emphasis

English — Comprehensive

General Speech — Speech Emphasis

General Speech — Theater Emphasis

Health

Physical Education

Physics — General Science

Social Studies

### Humanities/Fine Arts

Art

Communications (General)

Comparative Arts

English

Journalism

Theater

### Social Sciences

Business Administration

Government

History

Pre-Law

Psychology

Social Work

Sociology

### Mathematics/Sciences

Botany

Chemistry

Dentistry

Engineering

Forestry

Medical Technology

Medicine

Microbiology or Public Health and Sanitation

Optometry

Pharmacy

Physical Therapy

Veterinary

Zoology

## ASSOCIATE OF INDIVIDUALIZED STUDIES DEGREE

A degree designed for the purpose of meeting the specialized career needs of the individual

## ASSOCIATE OF APPLIED BUSINESS DEGREE

Accounting

Banking, Real Estate, and Finance

Data Processing

Retail Marketing Management

Secretarial

General

Executive

Medical

Legal

## CERTIFICATE OF ALLIED HEALTH (one year programs)

Practical Nursing

Respiratory Therapy Technician

Emergency Medical Technician — Paramedic

## ASSOCIATE OF APPLIED SCIENCE DEGREE

Automotive Technology

Civil Engineering

Diesel Technology

Electro-Mechanical Engineering

Plant Maintenance Engineering

Plastics/Chemical Engineering

Welding Technology

Corrections Technology

Social Services Technology

Parks and Recreation Administration

Dental Hygiene

Associate Degree Nursing

Medical Laboratory Technology

Radiologic Technology

# TABLE OF CONTENTS

<b>Majors Offered at Shawnee State</b> .....	1	Pre-Engineering Major .....	35
<b>Accreditations</b> .....	4	Pre-Forestry Major .....	36
<b>Technical Advisory Committees</b> .....	4	Pre-Medical Technology Major .....	36
<b>Admissions Procedures</b> .....	7	Pre-Medicine Major .....	37
<b>Academic Information</b> .....	8	Pre-Microbiology or Public Health & Sanitation Major .....	37
<b>Fees and Expenses</b> .....	11	Pre-Optometry Major .....	38
<b>Student Activities</b> .....	13	Pre-Pharmacy Major .....	38
<b>Student Services and Facilities</b> .....	15	Pre-Physical Therapy Major .....	39
<b>Transfer or University Parallel Programs --</b>		Pre-Veterinary Major .....	39
<b>Associate of Arts Degree</b> .....	18	Pre-Zoology Major .....	40
<b>Concentration Areas:</b>		<b>Social Sciences</b>	
Education .....	21	Pre-Business Administration Major .....	42
Elementary Education .....	22	Government .....	42
Special Education .....	22	Pre-History Major .....	43
Biology – General Science .....	23	Pre-Law Major .....	43
Chemistry – General Science .....	23	Pre-Psychology Major .....	44
Communications (English Emphasis) .....	24	Pre-Social Work Major .....	44
Communications (Speech Emphasis) .....	24	Pre-Sociology Major .....	45
English Comprehensive .....	25	<b>Business Technologies</b>	
General Speech (Speech Emphasis) .....	25	<b>(Associate of Applied Business Degree)</b> .....	46
General Speech (Theater Emphasis) .....	26	Accounting Technology .....	47
Health .....	26	Banking and Finance Technology .....	48
Physical Education .....	27	Data Processing and Computer Technology .....	49
Physics – General Science .....	27	Secretarial Technologies	
Social Studies .....	28	General Secretarial .....	51
<b>Humanities/Fine Arts</b>		Executive Secretarial .....	52
Pre-Art Major .....	30	Medical Secretarial .....	53
Pre-Communications (General) Major .....	30	Legal Secretarial .....	54
Comparative Arts Concentration .....	31	Retail Marketing Management Technology .....	56
Pre-English Major .....	31	<b>Allied Health Technologies (Associate of Applied Science</b>	
Pre-Journalism Major .....	32	<b>Degree and Certificate Programs)</b> .....	58
Pre-Theater Major .....	32	Admissions Procedures .....	59
<b>Mathematics/Sciences</b>		Dental Hygiene .....	60
Pre-Botany Major .....	34	Medical Laboratory Technology .....	62
Pre-Chemistry Major .....	34	Radiologic Technology .....	64
Pre-Dentistry Major .....	35	Respiratory Therapy Technology .....	66



Associate Degree Nursing .....	68
Practical Nursing .....	70
Emergency Medical Technician - Paramedic .....	72
<b>Engineering and Industrial Technologies</b>	
<b>(Associate of Applied Science Degree)</b> .....	75
Automotive Technology .....	76
Civil Technology .....	78
Diesel Technology .....	80
Electro-Mechanical Engineering Technology .....	82
Plant Maintenance Engineering .....	84
Plastics/Chemical Engineering .....	86
Welding Technology .....	88
<b>Public Service Technology</b>	
<b>(Associate of Applied Science Degree)</b>	
Corrections Technology .....	92
Social Services Technology .....	94
<b>Natural Resources Technology</b>	
<b>(Associate of Applied Science Degree)</b>	
Parks and Recreation Administration .....	96
<b>Inter-Institutional Advanced Study</b>	
<b>(Ohio University Courses)</b> .....	99
<b>Associate of Individualized Studies Degree</b> .....	100
<b>Graduate Realtors Institute Designation</b> .....	102
<b>Developmental Courses</b> .....	103
<b>Course Descriptions</b> .....	104
Accounting .....	104
Anthropology .....	105
Art .....	105
Automotive .....	107
Banking and Finance .....	107
Biological Sciences .....	108
Business Law .....	109
Chemistry .....	109
Civil Engineering .....	110
Comparative Arts .....	111
Corrections .....	112
Data Processing .....	113
Dental Hygiene .....	114
Diesel .....	115
Economics .....	116
Education .....	116
Electro-Mechanical Engineering .....	116
Emergency Medical Technician - Paramedic .....	117
Engineering .....	118

Engineering Drawing .....	118
English .....	119
Executive Secretarial .....	120
French .....	122
Geography .....	122
Geology .....	122
Government .....	123
Health, Physical Education, and Recreation .....	123
History .....	124
Humanities .....	125
Journalism .....	125
Linguistics .....	125
Mathematics .....	125
Medical Laboratory .....	127
Music .....	128
Nursing - Associate Degree .....	129
Nursing - Practical .....	129
Parks and Recreation Administration .....	130
Pharmacy .....	131
Philosophy .....	131
Physical Science .....	131
Physics .....	132
Plant Maintenance .....	132
Plastics/Chemical .....	133
Psychology .....	134
Quantitative Methods .....	134
Radiologic (X-ray) .....	134
Real Estate Courses .....	136
Respiratory Therapy .....	136
Retail Marketing Management .....	137
Social Science .....	138
Social Service .....	138
Social Work .....	139
Sociology .....	139
Spanish .....	140
Speech .....	140
Theater .....	141
Welding .....	141
<b>Board of Trustees</b> .....	142
<b>Administrative Officers of the College</b> .....	142
<b>Student Services Staff</b> .....	142
<b>Library Staff</b> .....	142
<b>Faculty</b> .....	143
<b>Calendar for 78-79 Academic Year</b> .....	144

## **ACCREDITATIONS**

Shawnee State Community College is fully accredited by:  
NORTH CENTRAL ASSOCIATION OF COLLEGES AND  
SECONDARY SCHOOLS

In addition, the institution is approved by the following agencies:

U.S. Office of Education

American Association of Collegiate Registrars and Admissions  
Counselors

American Association of Junior Colleges

Ohio Board of Regents

Ohio State Department of Education

Ohio College Association

Veterans Administration

American Dental Association

American Medical Association

State of Ohio Board of Nursing Education and Nurse Registration

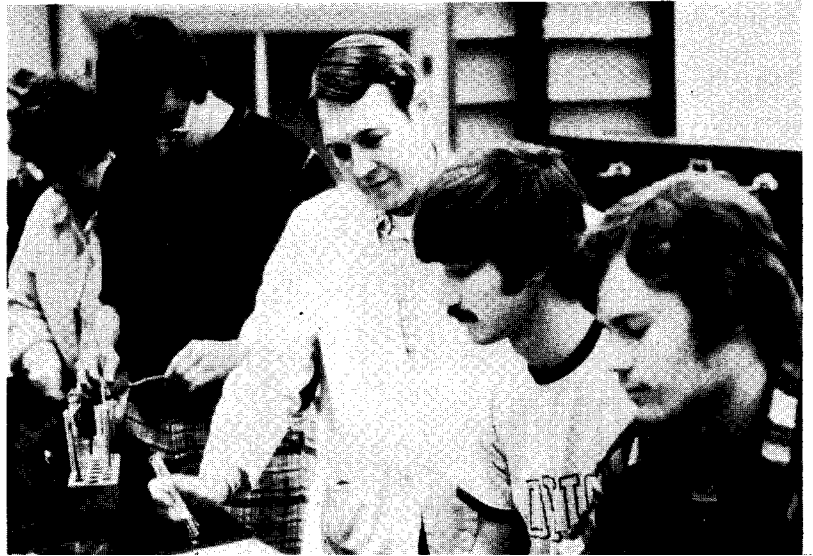
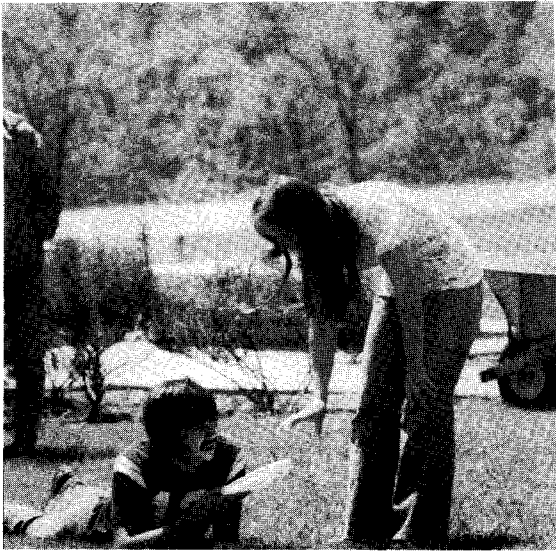
Bureau of Vocational Rehabilitation

Social Security Department

College Entrance Examination Board

## **TECHNICAL ADVISORY COMMITTEES**

A technical Advisory Committee has been named for each technical area or cluster of technical areas. These committees, like the general committee, are advisory only, not policy-making. These committees, made up of professional and technical people competent in their fields of specialty, work directly with administration and staff on curriculum needs, employers' viewpoints, up-to-date changes in industry, new equipment and process trends, recruitment ideas, and many more pertinent subjects. This committee insures the college of the latest in industrial and business developments by meeting several times a year for discussions and evaluation.



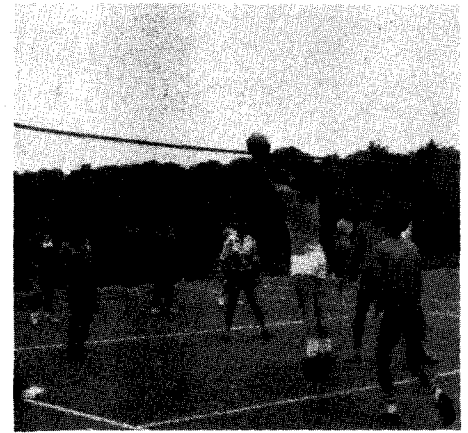
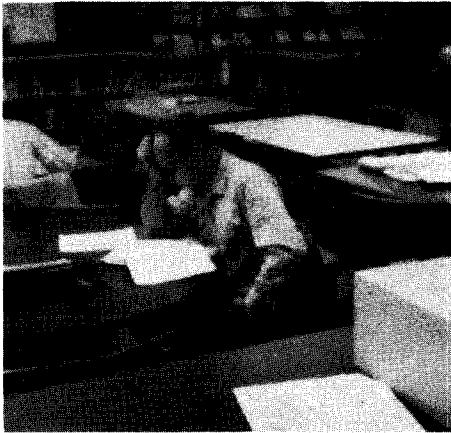
**ADMISSIONS PROCEDURES**

**FEES AND EXPENSES**

**ACADEMIC INFORMATION**

**STUDENT ACTIVITIES**

**STUDENT SERVICES AND FACILITIES**



# ADMISSIONS PROCEDURES

## Entrance Requirements

A graduate of Ohio high schools who is a resident of Ohio and who has never attended college will be accepted for admission as enrollment ceilings permit.

Out-of-state students who have graduated from high school and have never attended college will be accepted for admissions as enrollment ceilings permit.

Students that have not completed high school but have successfully completed the General Education Development Test for high school equivalency will be accepted for admissions as enrollment ceilings permit.

Students without a high school diploma or GED will be accepted as part-time students (less than 12 hours credit) for their first quarter as enrollment ceilings permit. Upon successful passing of their first quarter, the student will become eligible to be a full-time student.

A student who wishes to apply for any Allied Health program must either have a high school diploma or a General Educational Development certificate before an application is filed.

## Application for Admission

Students may submit applications for Fall admissions during the senior year of high school. (Students applying for Dental Hygiene, Medical Laboratory Technology, Respiratory Therapy, Radiology, Practical Nursing, EMT-Paramedic or Associate Degree Nursing are advised to apply for admissions to these programs before March 15. Students are also advised to review the specific admissions requirements for these programs. This information can be found in the program section of this bulletin.)

It is suggested that students file applications for specific quarter enrollment prior to published registration dates for that quarter. (see College Calendar)

Admissions to Freshman studies is possible in the Fall, Winter, Spring, or Summer quarters, excepting programs in the Medical areas outlined above which are available only in the Fall quarter or by special permission of the Program Director.

It is suggested that students applying for financial aid make application for admissions and financial aid before April 15. Applications for admissions and financial aid are accepted after that date, however, financial aid is awarded on a first-come-first-serve basis.

**A non-refundable fee of \$10 must accompany the application for admission.**

All completed application forms must be directed to:

**Shawnee State Community College  
Admissions Office  
940 Second Street  
Portsmouth, Ohio 45662**

## High School Transcript

The two-part High School Transcript Request must be submitted to the high school counselor or principal. One part is to be returned with the student's transcript, the other may be retained by the high school as a release form. Students will be notified of admission status when both application and high school transcript are on file.

Students that did not complete high school must have a record of high school work completed, a copy of the General Education Development Certificate on file, or enroll as a part-time student for one quarter.

## Admissions Test

Admissions tests are required as a part of the admissions procedures to selected programs (Medical Laboratory Technology, Dental Hygiene, Radiology, Respiratory Therapy, Practical Nursing, Emergency Medical Technician-Paramedic, and Associate Degree Nursing) but are not required as a part of college admissions to other educational programs.

## Transfer Students

Students that have attended other colleges or universities are welcome to apply for admissions at Shawnee State. Admissions procedures for transfer students are the same as above (application and high school transcript) and the additional requirement of an *official* college transcript and evidence of honorable dismissal.\* See the section Academics Concerning Transfer Credit.

## Senior Citizens

Shawnee State encourages senior citizens (65 or older) to audit any course of interest to them. Admissions to a course will be granted if space is available. Formal admission and registration is required but no fees will be charged.

## High School Students

A student who is still attending high school may take courses at Shawnee State while still enrolled in high school. To be admitted, the student must follow normal admissions procedures and must have a written recommendation from his principal, or counselor and written consent from his parents or guardian.

\*Students will be admitted as "provisional students" until such time the *official transcripts* have been received from the previous colleges.

# ACADEMIC INFORMATION

## Academic Integrity

Students at Shawnee State College are required to do their own work on all tests and assignments. Any form of cheating may result in the student's being withdrawn from a particular course or courses, as well as possible dismissal from the college.

## Faculty Role

Faculty expect regular and punctual attendance at all classes. Attendance policy for individual classes is made by the faculty members responsible for the class.

Grades are controlled by the faculty member responsible for the class.

In the event that a faculty member is not present at the normal time class begins, students are to remain in the classroom an additional fifteen minutes. If the faculty member has not arrived or no special instructions have been received, students may leave class without penalty.

Each faculty member posts office hours during which they are available to discuss individual problems relating to a student's academic progress. Students are encouraged to take full advantage of the advisory assistance of the faculty.

## Grading

Final grades are mailed at the end of each quarter by the Registrar's Office. Grades will not be issued orally.

## Description of Grades

Grade	Description	Quality Points
A	Excellent	4.00
A-		3.67
B+	Good	3.33
B		3.00
B-		2.67
C+		2.33
C	Average	2.00
C-		1.67
D+	Poor	1.33
D		1.00
D-		0.67
F		0
TC	Transfer Credit	0
KE	Credit by Exam	0
NC	No Credit	0
WD	Withdrawal	0
I	Incomplete	0
P	Pass	0

A grade of "F" receives no credit. A student making this grade must repeat the course if credit is to be received.

## Transfer Credit

Credit earned at regionally approved colleges and universities or regents approved Ohio colleges with a grade of "C" or better may be converted to "TC" on the student's academic record. Normally, a "D" is not transferable, however, if the "D" is part of a course sequence in which the student's average grade is "C" or better, a "D" may be transferred. The credit hours transferred do not become a part of the grade point ratio. To receive transfer credit, the student must file an official transcript of previous college work and a transfer of credit form with the Director of Admissions. Students will be notified by mail of transfer credit received.

## Incomplete Grades

Students unable to attend class for extended periods of time may contact the faculty member responsible for the class requesting an incomplete grade. Incompletes must be converted to a grade 30 class days into the next quarter or they will be recorded as "F's."

## Pass/Fail Option

Students may take courses on a pass/fail option by completing the proper forms with a Student Services Counselor. Forms for pass/fail must be completed within the first 10 class days of a regular quarter and 5 class days for a 5-week summer quarter. The student's decision to take a class on a pass/fail basis is not subject to change. Student may not take over one class per quarter on a pass/fail basis without approval of the Dean of Student Services.

## Credit by Examination

Credit may be allowed for previous academic work or experience on the basis of a proficiency examination administered by faculty. A service fee of \$20 per examination must accompany each petition. Credit requires approval of the department head. Students should request petitions from counselors.

Approved proficiency will be recorded as "KE" on the student's transcript. Credit by examination is not included in the calculation of cumulative point ratio.

Students are not eligible to take a proficiency examination for a course in which he has been enrolled for 20 class days or more.

### College Level Examination Program

Students may be awarded credit for College Level Examinations taken under the College Entrance Examination Board. Students taking the general examinations in English composition, mathematics, natural sciences, and humanities with a score in the 45th percentile or above will be given "KE" credit for the first sequence course in the above areas.

Subject Examinations may be used to earn "KE" credit for courses in subject areas of the Examinations. Students must achieve in the 45th percentile or above to receive credit.

### Repeating Course Work

Students may repeat courses. The student's final transcript will reflect only the highest grade received in a course.

### Changing Grades

Students questioning course grades must work through the faculty member responsible for the class. If you question a grade received, contact the faculty member. Faculty members responsible for a class must submit a special grade report form to Administrative Data Processing in order to change a recorded grade. See access to student records policy for further information.

### Grade Point Ratio

Quality points for a course are determined by multiplying the total credit hours by the numerical equivalent of the letter grade received in a course.

The formula for calculating grade point ratio is:

$$\frac{\text{Total Quality Points}}{\text{Total Hours Attempted}} = \text{Grade Point Ratio}$$

### Academic Probation

Students achieving a grade point average of 1.5 or less for any quarter will be placed on academic probation for the following quarter provided their accumulative grade average does not fall below that required to remain enrolled. (See academic dismissal section below.)

### Academic Dismissal

Students will be academically dismissed when their accumulative grade average falls below the following:

Credit Hours Attempted	Accumulative Grade Average
21-40	.75 or below
41-55	1.00 or below
56-65	1.25 or below
66-75	1.50 or below
76-85	1.75 or below
85-and above	1.90 or below

Students academically dismissed are eligible to re-enroll after one quarter.

### Adding a Class

Students may add a class to their schedule during the first ten class days of the quarter (five days of a 5-week summer session) by completing a change order with a student services counselor.

### Withdrawing from a Class

Students may withdraw from a class during the first 35 class days of the quarter (17 days of the 5-week summer sessions) by completing a change order form with a student services counselor. See refund of fees.

### Withdrawing from College

Students withdrawing from college when classes are in session must request the proper forms from a student services counselor. Grades for scheduled classes will be recorded as withdrawal (WD).

Students not following the withdrawal procedure are considered enrolled in the class and graded accordingly.

See fee schedule for refund policy.

### Non Credit

Students may elect to take a course for non-credit during the first 35 class days of a quarter (17 days of the 5-week summer sessions) by completing the proper forms in the Student Services Office.

### Credit by Arrangement

Students unable to attend regularly scheduled classes may pursue courses by arrangement. Students must register through the Student Services Office.

Students may earn up to 18 credit hours toward graduation with all credit being considered resident credit. The student is limited to eight hours of credit by arrangement per quarter. Students enrolling in a course by arrangement have until the date grades are due the following quarter to have all work completed in the course.

See the fee schedule for course by arrangement fees.

### Dean's List

Full-time students (12 or more hours per quarter) who achieve a 3.5 or above grade point ratio will be placed on the dean's list for that quarter.

### Student Load

Students scheduled for 12-20 credit hours are considered full-time students. Students scheduled for less than 12 credit hours are considered part-time students. The permission of the Dean of Student Services is required for students scheduling over 20 hours of credit. See fee schedule for extra hour fees.

### Graduation Requirements

In order to graduate, a student must have successfully completed all course requirements and have achieved a 2.0 cumulative grade ratio in all course work and his major field of study. Students having outstanding institutional bills or notes will not be issued a degree. **All students are required to earn 30 hours of credit at Shawnee State in order to be eligible for graduation.**

### Graduation with Honors

Students with an accumulative grade point ratio of 3.5 or above prior to the quarter of graduation will be graduated with honors.

### Transcripts

Each quarter students will receive a grade report that includes grades achieved that quarter and all previous quarters.

Students having errors in grade reports should contact a Student Services counselor immediately.

Students may request transcripts from the Student Services Office. There is no charge for the first transcript. Subsequent transcripts are \$1.00 each.

Requests for official transcripts must be in writing and addressed to the Director of Admissions.

### Visitors to Class

Students planning to bring a visitor to a class with them are requested to obtain permission of the faculty member responsible for the class in advance of the visit.

### Internship Guidelines

Programs requiring internship as part of the graduation requirements have guidelines for internship established by student advisors and faculty. Students are urged to request a copy of these guidelines from faculty advisors.





# FEES AND EXPENSES

## Registration Fees

Registration fees are payable at the Business Office prior to the opening of classes and in accordance with instructions issued with your quarterly bill. For students registering during late registration fees are assessed as part of the registration process and are due at that time. Checks and money orders should be made payable to Shawnee State Community College in the exact amount of the fees. It is important that the student retain all fee receipts.

Payment of fees owed is a prerequisite to official enrollment and all students should have sufficient funds (cash and/or financial aid) to cover these expenses.

A review of students enrolled will be made the 14th day of each quarter and any student showing a balance due will be administratively dismissed.

## Schedule of Fees

	Resident of Ohio	Nonresident
Instructional fee		
Full Time Student (12-20 cr. hrs.)	\$200.00	\$225.00
Part Time Student (1-11 cr. hrs.)	17.00 per cr. hr.	19.00 per cr. hr.
General Fee		
Full Time Student	25.00	25.00
Activity Fee		
Full Time Student	5.00	5.00
Part Time Student	5.00	5.00
Extra fee for each quarter hour in excess of 20 hours	17.00 per cr. hr.	19.00 per cr. hr.
Credit by Examination	20.00 per course	20.00 per course
Course by Arrangement	30.00 per cr. hr.	30.00 per cr. hr.
Graduation Fee	20.00	20.00

\*Shawnee State Community College reserves the right to make, without prior notice, any fee adjustments that may become necessary.

## Student Insurance

Shawnee is providing all full time students the benefit of a very good comprehensive health insurance policy. With your Full Quarter billing you will be automatically enrolled in the program and the fee assessed. **Important**; if you do not want the insurance coverage you **must** complete a waiver card and submit the same to the Business Office. Questions concerning student health insurance may be obtained at the Business Office.

## Fee Deferment

The fee deferment is a request from the Financial Aids or Veterans Office for the Business Office to defer a student's fees until later in the quarter. The Financial Aids and Veterans Office may, at the discretion of the Director, issue fee deferment requests for students in the following categories:

1. First quarter veterans with applications for veterans benefits in process
2. Enrolled veterans experiencing pay problems which are verified by the Veterans Administration
3. Financial aid applicants with material in process

## Refund of Fees

Continuing students dropping hours by change order prior to or during the first fifteen (15) days of the quarter, when such changes result in a reduction of fees, are entitled to receive a 100 percent refund of the reduction. Changes made after the fifteenth (15th) day of the quarter will result in no refund.

Students that **officially** withdraw from Shawnee State will receive a refund, if due, based upon the following schedule. Students that do not officially withdraw *are not* eligible for any refund and fees assessed are due and payable.

Time of Withdrawal (Regular Term)	Refund
1 to 14 days	Full amount paid less \$10.00
15 to 20 days	50% of Instructional fee
21 to 25 days	25% of Instructional fee
over 25 days	No refund
Time of Withdrawal (5 week session)	Refund*
1 to 3 days	Full amount paid less \$10.00
4 to 6 days	75% of Instructional fee
7 to 9 days	50% of Instructional fee
10 to 12 days	25% of Instructional fee
over 12 days	No refund

\*This schedule for refunds will apply to students registered only in a five week session.

Please note: Students taking classes from both a regular quarter and a five week session will be issued refunds under the regular Term Policy.

Refunds are issued 30 days after the date of the withdrawal or change has been issued.

Questions about the above information should be referred to the Business Office.

**Late Registration and Late Payment Policy**

A late registration fee of \$10.00 will be assessed all students enrolled in the previous quarter that do not register during the announced early registration period.

A late payment fee would normally not be applicable since payment is a prerequisite to registration. However, should exceptions be made to the Registration Fee section a late payment fee of \$20.00 will be assessed by the Business Office.

**Miscellaneous Fees****Activity Fee**

All students will be assessed a \$5.00 activity fee for each quarter. This fee is to support all student activities. No activity fees are assessed for the Summer Quarter.

**Application Fee**

A \$10.00 application fee, non-refundable, must accompany all admission applications.

**Deposit Fee**

All students accepted into allied health programs must pay a \$100 deposit on tuition before the set deadline date or make other arrangements with the Director of Financial Aid. The \$100 is refunded if the student is not enrolled into the program. If enrolled, the \$100 is deducted from the first quarter's tuition.

**Transcript Fee**

The college will produce one official transcript upon written request from the student at no cost. Additional transcripts will be reproduced at a cost of \$1.00 per copy.

# STUDENT ACTIVITIES

## Music and Drama

The music and theatre departments at Shawnee State General and Technical College actively plan performances the year round. During the regular school year the music department presents at least three concerts by the performing choral group, the Shawnee Choir. These performances feature both classical and popular music. The Choir is made up of both college students and community members whose common interest is singing good music. The Choir frequently performs for civic and service organizations outside the college community, as well. Shawnee Choir is open to any Shawnee State student.

The drama department presents several dramatic productions during the year. These shows tour area high schools and are also presented on campus. Each spring the music and theatre departments combine to present a musical at Bonneyfiddle. The Bonneyfiddle productions are open not only to Shawnee State performers, but to community and area performers as well.

In addition to the large-scale productions, the Shawnee State Players stage at least one children's theatre production during the year.

## Student Complaints

Guidelines are available to assist in the maintenance of legitimate rights and obligations of both students and institutional representatives, and to assist in the maintenance of academic integrity. The climate of the institution is one of the services to the student and in assisting him/her in reaching his/her established goals. Guidelines are available in the library and in each counselor's office. The institution seeks to establish an atmosphere of openness and it is in this spirit that these guidelines are offered.

## College Laws and Regulations

### General Student Conduct

A student community can function effectively only if the rights and obligations of all its members are recognized. At Shawnee State Community College, students are expected to observe the standards of propriety at all times. This implies thoughtful consideration of the welfare of students and the college. Of particular concern to the college are the following areas of improper conduct which may result in disciplinary action, including suspension from the college.

### Unacceptable Conduct

Unacceptable conduct is concerned with the following areas:

- Consumption or possession of alcoholic beverages
- Possession and Use of Narcotics
- Harmful or Dangerous Items (possession or use of firearms, etc.)
- Gambling
- Dishonesty
- Forgery
- Hazing
- Interfering with Safety Procedures

Further information on this area can be found in the library or in the counselors office.

Description of Ohio House Bill No. 1219 and the College Policy to Review Student's Records — information on both of these areas may be found in the library or in the counselors office.

## Cultural Affairs

A committee composed of both faculty and students direct a program of cultural affairs. This committee arranges for speakers, musical groups, and other activities of a cultural nature to appear on campus.

## Intramural Athletics

The Department of Physical Education is striving to provide an intramural program that offers a wide variety of athletic and recreational activities. It is felt that the students at Shawnee State College should have an opportunity to participate in a program that gives them the freedom to choose leisure time activities that will best meet their individual needs. Our goal is to have every student participating in intramural activities. To accomplish this goal there must be close cooperation between the student body, the Intramural Department and College officials. Students are asked to participate in planning and supervising various aspects of the program.

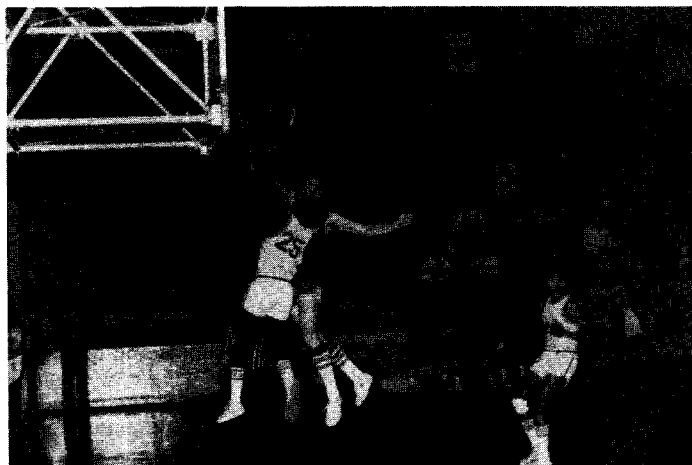
### Tentative Intramural Events 1978-79

#### Team Events

1. Touch Football
2. Basketball
3. Volleyball
4. Bowling
5. Softball

#### Individual Events & Dual Events

1. Badminton
2. Golf
3. Tennis
4. Table Tennis
5. Archery
6. Bridge
7. Chess



## Interscholastic Athletics

Shawnee State College's philosophy holds that there is more to learning than just academics. Besides attending classes, every student has an opportunity to participate in a recreational or athletic area.

Varsity athletics supplement the classroom experience by emphasizing cooperation, leadership, courage, sacrifice and discipline.

Athletic policies at Shawnee State conform to the policies and regulations of the National Junior College Athletic Association of which they are a member. Presently within the NJCAA framework, Shawnee State teams participate on an intercollegiate level in basketball, golf, and tennis. The college plans to expand with additional programs in the near future.

An athletic and physical education complex is now on the drawing board and should be a reality by 1978.

# STUDENT SERVICES AND FACILITIES

## Student Services Counseling

The College provides a wide variety of counseling services through the different offices of Student Services. Admissions, placement, financial aid, veterans, educational, vocational, marriage and family, and personal-social counseling are available to students without cost. Counseling services are available to students, alumni, and their families at no cost upon request at the Student Services offices.

### Professional Counselors and Building Location:

Arnold V. McCoy	Commons Building
Richard R. Howard	Commons Building
Eugene Wilson	Commons Building
Tom Davidson	Business & Engineering Building
Fred Chrisman	Allied Health Building
Dr. Paul D. Crabtree	Massie Hall

Counseling sessions are confidential.

Student Services Offices are open from 8:00 a.m. to 8:00 p.m., Monday thru Thursday and 8:00 a.m. to 4:00 p.m. on Friday.

## Faculty Advising

Academic advising is provided by faculty advisors. The purpose of faculty advisement is to assist students with their immediate academic concerns. Faculty members meet with students by appointment and each faculty member will have available hours posted near his/her office.

## Developmental Education

Developmental courses in mathematics, biology, chemistry, physics, and study methods are offered at no cost to students who have completed the admissions process. Students take these courses to qualify for certain programs, or to increase their chances for success in college.

A peer tutoring program is also available to students upon faculty or counselor recommendation. Students may receive academic tutoring of up to three hours per week for courses in which they are experiencing academic difficulty. If you are interested in receiving the service, please contact a faculty member or a student services counselor. If you are interested in being a tutor, please contact the developmental education department. Tutors are reimbursed for their tutoring time.

## Financial Aid

An extensive Financial Aid Program is available to assist students in meeting some of the expenses of a college education. The Financial Aid Program is administered by the Financial Aids Office, and the program includes four categories: scholarships, grants, loans, and employment.

**Scholarships:** The college administers a limited number of special scholarships for students demonstrating a high degree of academic ability or special talents. Students interested in scholarships should contact the Financial Aids Office.

**Grants:** The college administers three types of grant programs: the Ohio Instructional Grant (O.I.G.), the Basic Educational Opportunity Grant (BEOG), and the Supplemental Educational Opportunity Grant (SEOG). Grants are not repaid. Interested students should contact the Financial Aids Office.

**Loans:** National Direct Student Loans are available to students who demonstrate financial need through the filing of a College Scholarship Service Financial Aid Form. All loans are interest free until nine months after the student graduates or leaves school. At that point, repayment of the loan at simple interest will commence.

Questions regarding state or federal guaranteed loans should be addressed to the student's local bank or lending agencies.

**Emergency Loans** are available on a limited basis to students needing short-term assistance with direct or related educational expenses. Amounts of these loans are not to exceed \$50.00.

**College Work-Study:** The College Work-Study Program is available to students who can demonstrate financial need through the completion of the FAF.

**Part-time Student Employment:** Part-time student employment is available on a limited basis through the Placement Office of the Student Services Office. This is not part of the Financial Aid Program, therefore, evidence of financial need is not necessary.

To be considered for these programs, a student must complete the Financial Aid Form (FAF), and submit it to the College Scholarship Service (CSS). Ohio residents must complete the Ohio Instructional Grant Application and submit it to the Ohio Board of Regents. Once Shawnee State has this information, the student's file is complete and an award notice will be sent.

## Veteran's Administration Benefits

The programs at Shawnee State are approved by the Veterans Administration for the education of veterans and their eligible dependents. Students interested in V.A. benefits should contact the Veterans Affairs Office located in the Office of Student Services.

## **Placement Services**

The nature of the programs offered at Shawnee State College make two types of placement necessary: Occupational and Transfer Placement.

**Occupational Placement:** Students interested in employment after graduation should contact the Placement Office in advance of the quarter they plan to graduate. Companies and business establishments conduct annual recruiting campaigns for two-year graduates. The Office for Occupational Placement is located in the business and engineering building.

**Transfer Placement:** Students interested in continuing their education at a four-year college or university should contact the Placement Office two quarters before they plan to graduate. Recruiters from four-year institutions will be invited on campus. The Office of Transfer Placement is located in Massie Hall.

Placement services are available to graduating students and alumni of the college at no cost.

## **Housing**

There are no dormitories or campus housing at Shawnee State. The college makes available to students the names and addresses of area residents who have rooms and apartments for rent. The college does not inspect or approve available housing, but the list gives the student and his/her parents an idea of where to locate housing.

The College does not accept responsibility for agreements, leases, or contracts between students and landlords.

## **Parking**

Adequate parking facilities are adjacent to the College. Students should park in designated student parking areas and exercise proper driving courtesy. The College assumes no responsibility for any losses which may occur in the parking area. Students parking outside of their designated areas will have their cars ticketed. Parking fines are \$5.00 per violation.

## **Bookstore**

The College operates a bookstore for student convenience. Bookstore hours will be posted on the door.

## **Closing the College**

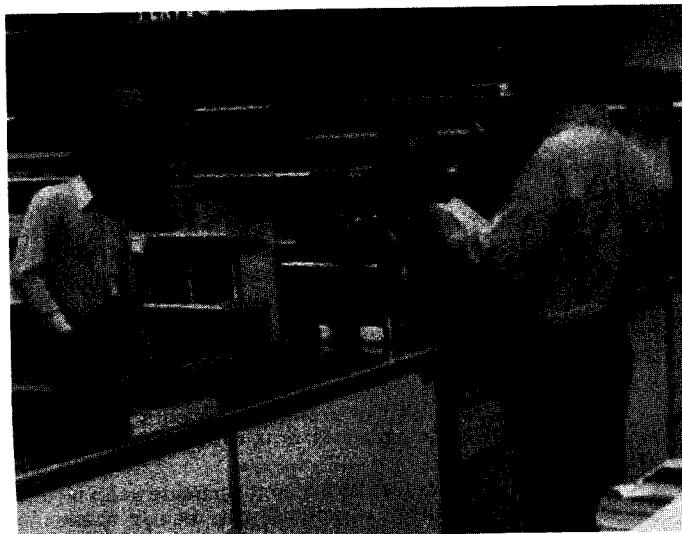
If an emergency would exist because of mechanical failure that would necessitate the closing of the college, the announcement would be carried over WPAY, WIOI, and WNXT radio and Teleprompter Cable T.V.

## **Libraries**

Library services are available to serve the needs of students at both campuses. Students should fill out borrowers' cards after registration. Please ask the librarian for aid in obtaining information and printed materials you would like to have.

## **Identification Cards**

I.D. cards will be issued to Shawnee State College students. An I.D. card is a necessary source of campus identification in utilizing the library and student activities. Students must present evidence of registration certification at the time the I.D. card is made. A notice will be placed on the bulletin boards announcing the room and time when I.D. pictures will be taken.



**SHAWNEE STATE COMMUNITY COLLEGE**

**ASSOCIATE OF ARTS DEGREE**

**UNIVERSITY PARALLEL/TRANSFER CURRICULA**

## TRANSFER OR UNIVERSITY PARALLEL PROGRAMS

### Transfer or University Parallel Programs

The various transfer curricula developed at Shawnee State College are designed with the major objective of enabling students to complete the first two years of study toward a baccalaureate degree. In awarding the Associate of Arts Degree, Shawnee State verifies that the student has successfully completed the first two years of a four-year program and is ready for upper division work in a baccalaureate college or university. Students can pursue transfer programs in the fields of social and behavioral sciences, natural sciences, humanities, fine arts, teacher education, and several other pre-professional programs.

Because curricula of the first two years in various colleges and universities may differ, students who plan to transfer to a baccalaureate institution should follow the procedure outlined below:

1. Secure a catalog of the institution to which he wishes to transfer and become familiar with its admission requirements and suggested freshmen and sophomore courses in his major field of interest.
2. Consult with a counselor or academic advisor at Shawnee State about fulfilling these requirements.
3. Confer with an admissions officer at the senior institution for further information about transfer regulations and applicability of credit.

The transfer programs which are outlined are intended to indicate typical requirements in various programs. The student assumes responsibility for course selections necessary to satisfy the requirements of the senior institution to which he intends to transfer.

- I. Procedures defined for transferring to a baccalaureate institution
  - A. Associate of Arts Degree in General Studies
  - B. Suggested Concentration Areas (Ohio Univ. Guidelines)
  - C. Education:
    - Elementary Education
    - Special Education
    - Secondary Education
      - Biology — General Science
      - Chemistry — General Science
      - Communications — English Emphasis
      - Communications — Speech Emphasis
      - English — Comprehensive
      - General Speech — Speech Emphasis
      - General Speech — Theater Emphasis
      - Health
      - Physical Education
      - Physics — General Science
      - Social Studies
  - D. Humanities/Fine Arts
    - Art
    - Communications (General)
    - Comparative Arts
    - English
    - Journalism
    - Theater
  - E. Mathematics/Sciences
    - Botany
    - Chemistry
    - Dentistry
    - Engineering
    - Forestry
    - Medical Technology
    - Medicine
    - Microbiology or Public Health and Sanitation
    - Optometry
    - Pharmacy
    - Physical Therapy
    - Veterinary
    - Zoology
  - F. Social Sciences
    - Business Administration
    - Government
    - History
    - Pre-Law
    - Psychology
    - Social Work
    - Sociology



## **Associate of Arts Degree (General Studies)**

(College or University Parallel Programs)

Courses offered under the Associate of Arts Degree at Shawnee State resemble those courses typically offered during the first two years at a baccalaureate institution. Students may enroll in courses for personal enhancement, or enroll in a program developed specifically for transfer to a four-year college or university. The A.A. degree has been specifically designed to permit a broad curricula sampling in the areas of communications, social sciences, natural sciences and humanities, thus preparing the student for more advanced study at the receiving institution.

### **Requirements for the Associate of Arts Degree**

A total of 90 qtr. hours of credit (minimum) — 30 qtr. hours of which must be in courses numbered 200.

2.00 cumulative average

#### **I. Degree Core Requirements**

In all of the several areas of concentration at Shawnee State, the "core requirements" in general education must be met. The requirements from 49 to 60 quarter hours can be satisfied by course offerings in four general areas.

##### **A. Communications (11 qtr. hrs.)**

Two courses from: Eng. 111, Eng. 112, Eng. 115, Eng. 140A,

B, C or D (Topics in English Language and Literature), and Speech 101 (Speech I) or Speech 102 (Speech II)

##### **B. Natural Sciences (12-15 qtr. hrs.)**

At least two courses from one area:

A. Biological Sciences (Bio. 111, 112, 113)

B. Chemistry (Chem. 121, 122, 123 or Chem. 141, 142, 143)

C. Geology (Geo. 101, 102, 103)

D. Physics (Phy. 201, 202, 203)

E. Physical Sciences (Phy. Sc. 101, 102, 103)

F. Mathematics (Math 120, 121, 130-32, 150, 201-203)

##### **C. Humanities and Social Sciences (24-30 qtr. hrs.)**

###### **1. (Social Sciences) (12-15 qtr. hrs.)**

Three courses covering two areas:

A. Economics (Econ. 101, 102)

B. Psychology (Psy. 101, and 131 or 173)

C. Geography (All Geog. courses)

D. Government (All Govt. except 290, 299)

E. History (All Hist. except 290)

F. Sociology (Soc. 101 and 201)

G. Anthropology (Anthro. 201 and 250)

###### **2. (Humanities) (12-15 qtr. hrs.)**

Three courses covering two areas:

A. Philosophy (Phil. 101, 102, 103)

B. Comparative Arts (CA 101, 102, 103)

C. Humanities (Hu. 101, 102, 103)

D. Art (Art 100, 101, 102, and 103)

E. Modern Language (Fr. 111, 112, 113 or Spanish 111, 112, 113)

F. Music (Mus. 120, 121, 122, 123, and 160)

G. Theater (Th. 101A, B, C, or 201)

##### **D. Health/Physical Education (2-4 qtr. hrs.)**

Two activity courses or Health 202.

#### **II. Concentration Area.**

Selected Specialized Courses

## **SHAWNEE STATE COMMUNITY COLLEGE**

### **University Parallel/Transfer Curricula**

The suggested transfer curricula which follow have been based upon various baccalaureate degree requirements using Ohio University as a guide. It is important to note that they are *suggestions* only, and that the personal preference and the college or university to which the student may transfer will ultimately determine appropriate course selections and program.

## **CONCENTRATION AREAS**

### **Education**

Elementary Education

Special Education

Secondary Education:

Biology — Gen. Sci.

Chemistry — Gen. Sci.

Communications — English Emphasis

Communications — Speech Emphasis

English — Comprehensive

General Speech — Speech Emphasis

General Speech — Theater Emphasis

Health

Physical Education

Physics — Gen. Sci.

Social Studies

## ELEMENTARY EDUCATION\*

Freshman	Hours	Sophomore	Hours
<sup>1</sup> Science .....	12	<sup>3</sup> Social Sciences (Electives) .....	12
Modern Math (Math 120 & 121 — Elem. Topics in Math) .....	10	Ling. 270 .....	5
<sup>2</sup> Speech 101 or 102 .....	3	Music 160, 161 .....	6
Psy. 101, General .....	4	HPER 202 Personal and Community Health .....	4
English (Eng. 111, 112, 115, 140 A,B,C,D) .....	8	HPER 270 Phy. Ed. for the Elem. Teacher .....	3
<sup>3</sup> Social Sciences (Electives) .....	8	HPER (Activity Courses) .....	1
Physical Education .....	1	Art for the Elem. Teacher I, II .....	6
		Education Psy. (275) .....	5
		<sup>4</sup> Education 101 (Intro. to Ed.) .....	4
Total	46		
		Total	46

1. Three courses required — must include at least one course in Biology and one in Physical Science. (All courses must include lab).
2. Speech 101 for high school deficiency. Speech 102 if you have HS speech credit.
3. Social Science Electives must include one course in Am. Hist. or Am. Govt. and Geog. 121 Cultural Geog.
4. Depending on school to which the student transfers.

\*A 20 qtr. hr. concentration is required for a Baccalaureate Degree for the College of Education at Ohio University. This concentration may be in any department outside the College of Education, but may be taken in the School of Health, Physical Education and Recreation or School of Home Economics.

## EDUCATION — SPECIAL EDUCATION

Freshman	Hours	Sophomore	Hours
English (111, 112, 115, 140 A,B,C,D) .....	8	Speech 101 or 102 .....	3
Psychology 101 .....	4	HPER 202 (Per. and Comm. Health) .....	4
Social Sciences (Core Requirements — See Page 19) .....	8	HPER 250 (Recreational Leadership) .....	3
Natural Sciences (Core Requirements — must include lab) .....	8	Art 201, 202 (Art for the Elem. School I, II) .....	6
Humanities (Core Requirements — See Page 19) .....	8	Math 120 or higher .....	5
Physical Education .....	1	Music 160, 161 .....	6
Electives (Math 150, Psy. 131, Psy. 241) .....	8	Physical Education .....	1
		Electives .....	17
Total	45		
		Total	45

### EDUCATION (BIOLOGY — GENERAL SCIENCE)

Freshman	Hours	Sophomore	Hours
English (111, 112, 115, 140 A,B,C,D) .....	8	Speech 101 or 102 .....	3
Chemistry 141, 142, 143 .....	12	Physics 201, 202, 203 .....	12
Biology 111, 112, 113 .....	16	Humanities (Core Requirements — See Page 19) .....	12
*Math 201, 202 .....	10	Social Sciences (Core Requirements — Psy. 101 required) .....	12
Physical Education .....	2	Psychology 275 (Educ. Psy.) .....	5
	<hr/>	Electives (Sciences) .....	4
Total	48		
		Total	48

\*Math 130 sequence may be elected in preparation for calculus.

### EDUCATION (CHEMISTRY — GENERAL SCIENCE)

Freshman	Hours	Sophomore	Hours
English (111, 112, 115, 140 A,B,C,D) .....	8	Chemistry 205, 206, 207 .....	12
Chemistry 141, 142, 143 .....	12	Physics 201, 202, 203 .....	12
*Math 201, 202, 203 .....	15	Humanities (Core Requirements — See Page 19) .....	4
Humanities (Core Requirements — See Page 19) .....	8	Psychology 275 (Educ. Psy.) .....	5
Social Sciences (Core Requirements — Psy. 101 required) .....	4	Chemistry 225 and 224 .....	10
Physical Education .....	1	Physical Education .....	1
	<hr/>	Speech 101 or 102 .....	3
Total	48		
		Total	47

\*Math 130 sequence may be elected in preparation for calculus.

**EDUCATION — COMMUNICATIONS  
(ENGLISH EMPHASIS)**

<b>Freshman</b>	<b>Hours</b>	<b>Sophomore</b>	<b>Hours</b>
English (111, 112, 115, 140 A,B,C,D) .....	8	Psychology 275 .....	5
Natural Sciences/Math (Core Requirements — 1 science, 1 math recommended) .....	12	Speech 101 or 102 .....	3
Social Sciences (Core Requirements — Psy. 101 required)	12	Speech 105 (Intro. to Mass. Comm.) .....	4
Humanities (Core Requirements — See Page 19) .....	12	Speech 220 or Thar. 220 (Oral. Inter. of Lit.) .....	4
Physical Education .....	1	Speech 230 (Comm. Theory and Process) .....	4
		Speech 215 (Discussion) .....	4
		Speech 205-A (Debate) .....	4
<b>Total</b>	<b>45</b>	Physical Education .....	1
		English 201, 202, or 203 .....	4
		English 204, 205, or 206 .....	4
		English 225 or 226 .....	4
		Electives (English) .....	4
		<b>Total</b>	<b>45</b>

**COMMUNICATIONS — SPEECH EMPHASIS**

<b>Freshman</b>	<b>Hours</b>	<b>Sophomore</b>	<b>Hours</b>
English 111, 112, 115, 140 A,B,C,D .....	8	Psychology 275 (Educ. Psy.) .....	5
Speech 102 (Public Speaking) .....	3	Thar. 100 (Intro. to Theater) .....	3
Natural Sciences/Math (At least 1 course in each) .....	12	Journalism 231 (News Reporting) .....	4
Social Sciences (Core Requirements — Psy. 101 required)	12	English 201, 202, or 203 .....	4
Humanities (Core Requirements — See Page 19) .....	12	Physical Ed. ....	2
<b>TOTAL</b>	<b>47</b>		<b>18</b>
		Minimum of 27 hrs. chosen from the following:	
		Speech 105 (Intro. to Mass. Comm.) .....	4
		Speech 110 (Listening Behavior) .....	2
		Speech 125 (Parliamentary Usage) .....	3
		Speech 205-A (Argumentation and Debate) .....	4
		Speech 205-B, C (Intercollegiate Debate) .....	4
		Speech 215 (Group Discussion) .....	4
		Speech 220 or Thar. 220 (Oral Interp.) .....	4
		Speech 225 (Verbal Lang. Behavior) .....	3
		Speech 230 (Comm. Theory and Process) .....	4
		<b>Total</b>	<b>50</b>

## EDUCATION — ENGLISH COMPREHENSIVE

Freshman	Hours	Sophomore	Hours
English (111, 112, 115, 140 A,B,C,D) .....	8	Social Science (Core Requirements — See Page 19) .....	4
Speech 101 or 102 .....	3	Humanities (Core Requirements — See Page 19) .....	4
Sciences/Math (1 science and 1 math) .....	12	Psychology 275 (Educ. Psy.) .....	5
Social Sciences (Core Requirements — Psy. 101 required) .....	8	English 201, 202, or 203 .....	4
Humanities (Core Requirements — See Page 19) .....	8	English 204, 205, or 206 .....	8
Physical Education .....	2	English 225 and 226 .....	8
Electives .....	4	Electives (Must include 1 English course above freshman level) .....	12
<b>Total</b>	<b>45</b>	<b>Total</b>	<b>45</b>

## EDUCATION — GENERAL SPEECH (SPEECH EMPHASIS)

Freshman	Hours	Sophomore	Hours
Speech 101, 102 .....	6	Psychology 275 (Educ. Psy.) .....	5
Speech 105 (Intro. to Mass Comm.) .....	4	Social Sciences (Core Requirements — See Page 19) .....	8
English (111, 112, 115, 140 A,B,C,D) .....	8	Physical Ed. .....	2
Natural Sciences/Math (Core Requirements — at least 1 course in each) .....	12	Thar. 220 or Speech 220 (Oral Inter.) .....	4
Psychology 101 .....	4	Speech 205-A (Argumentation & Debate) .....	4
Humanities (Core Requirements — See Page 19) .....	12	Speech 205-B, C (Intercollegiate Debate) .....	4
<b>Total</b>	<b>46</b>	Speech 215 (Group Discussion) .....	4
		Speech 110 (Listening) .....	2
		Speech 225 (Verbal Lang. Beh.) .....	3
		Speech 230 (Comm. Th. and Process) .....	4
		Electives (Thar. 215, Thar. 101) .....	Min. 5
		<b>Total</b>	<b>45</b>

## EDUCATION — GENERAL SPEECH (THEATER EMPHASIS)

Freshman	Hours	Sophomore	Hours
Speech 101, 102 .....	6	Psychology 275 (Educ. Psy.) .....	5
English (111, 112, 115, 140 A,B,C,D) .....	8	Social Sciences (Core Requirements — See Page 19) .....	4
Natural Sciences/Math (Core Requirements — At least 1 course in each) .....	12	Physical Ed. ....	2
Social Sciences (Core Requirements — Psy. 101 required) .....	8	Thar. 100 (Intro. to Theater) .....	3
Humanities (Core Requirements — See Page 19) .....	12	Thar. 101 A,B,C (Shawnee Co.) .....	9
		Thar. 201 (Children's Theater) .....	5
		Thar. 215 (Principles of Acting) .....	3
Total	46	Thar. 220 or Speech 220 (Oral Interp.) .....	4
		Thar. 225 (Stage Costume and Make-up) .....	3
		Total	38

Minimum of 8 hrs. selected from the following:

Speech 205-A (Argumentation and Debate) .....	4
Speech 205-B,C (Intercollegiate Debate) .....	2-4
Speech 230 (Comm. Th. and Process) .....	4
	8
Total	46

## EDUCATION — HEALTH

Freshman	Hours	Sophomore	Hours
English (111, 112, 115, 140 A,B,C,D) .....	4	English (111, 112, 115, 140 A,B,C,D) .....	4
Speech (101, 102) one course .....	3	Psychology 275 (Educ. Psy.) .....	5
HPER 261 (Introduction to P.E. & Health) .....	2	Comparative Arts and/or Philosophy .....	4
Psychology 101 .....	4	Biology 290, 290B, 291 291B (Anatomy & Physiology I, II) ..	10
Sociology 101 .....	4	HPER 202 (Personal and Community Health) .....	4
Biology 111 .....	5	HPER 110 (3 Activity Classes) .....	3
Math (1 course) .....	4-5	HPER 204 (Drugs, Alcohol and Tobacco) .....	3
Comparative Arts and/or Philosophy .....	8	HPER Electives .....	13
HPER 227 (First Aid) .....	3		
HPER 234 (Laboratory Experience in Phys. Ed.) .....	2	Total	46
HPER 110 (3 Activity Classes) .....	3		
HPER 295 (Independent Study) .....	2		
Elective .....	2		
Total	46-47		



## EDUCATION — PHYSICAL EDUCATION

Freshman	Hours	Sophomore	Hours
English (111, 112, 115, 140 A,B,C,D) .....	4	English (111, 112, 115, 140 A,B,C,D) .....	4
Speech (101, 102) one course .....	3	Psychology 275 (Educ. Psy.) .....	5
HPER 261 (Introduction to P.E. & Health) .....	2	Comparative Arts and/or Philosophy .....	4
Psychology 101 .....	4	Biology 290, 290B, 291, 291B (Anatomy & Physiology I, II) .	10
Social Science (Elective) .....	4	HPER 202 (Personal and Community Health) .....	4
Biology 111 .....	5	HPER 110 (3 Activity Classes) .....	3
Math (1 course) .....	4-5	HPER 250 (Recreation) .....	3
Comparative Arts and/or Philosophy .....	8	HPER 204 (Drugs, Alcohol and Tobacco) .....	3
HPER 227 (First Aid) .....	3	HPER 239 Athletic Officiating Football .....	6
HPER 234 (Laboratory Experience in Phys. Ed.) .....	2	240 Athletic Officiating Basketball	
HPER 110 (3 Activity Classes) .....	3	241 Athletic Officiating Baseball (2 courses)	
HPER 295 (Independent Study) .....	2	242 Athletic Officiating Track	
HPER 290 (The Art of Sport Officiating) .....	2	HPER 281 (Administration of Intramural Athletics) .....	4
<b>Total</b>	<b>46-47</b>	<b>Total</b>	<b>46</b>

## EDUCATION (PHYSICS — GENERAL SCIENCE)

Freshman	Hours	Sophomore	Hours
English (111, 112, 115, 140 A,B,C,D) .....	8	Physics 201, 202, 203 .....	12
Chemistry 141, 142, 143 .....	12	Humanities (Core Requirements — See Page 19) .....	8
*Math 201, 202, 203 .....	15	Psychology 275 (Educ. Psy.) .....	5
Humanities (Core Requirements — See Page 19) .....	4	Social Sciences (Core Requirements — See Page 19) .....	8
Social Sciences (Core Requirements — Psy. 101 required) .....	4	Electives (Sciences) .....	12
Physical Education .....	2		
Speech 101 or 102 .....	3		
<b>Total</b>	<b>48</b>	<b>Total</b>	<b>45</b>

\*Math 130 sequence may be elected in preparation for calculus.

## EDUCATION — SOCIAL STUDIES\*

Freshman	Hours	Sophomore	Hours
English (111, 112, 115, 140 A,B,C,D) .....	8	History 111, 112, and 113 .....	12
Laboratory Sciences (two quarter sequence) .....	8-10	Government 101 and 102 .....	8
Mathematics .....	4-5	Economics 101 and 102 .....	8
Humanities (Core Requirements — See Page 19) .....	12	Geography 101 .....	4
History 101, 102, and 103 .....	12	Psychology 275 (Educ. Psy.) .....	5
Psychology 101 .....	4	Sociology 101 .....	4
	-----	Anthropology 201 .....	5
	48-51	Speech 101 or 102 .....	3
		Physical Education .....	2
			-----
		Total	51

\*For preparation leading to state teacher certification in a history-government comprehensive, students consult faculty in the Social Science Division and the appropriate catalog of the college to which they plan to transfer.



## **CONCENTRATION AREAS**

### **Humanities/Fine Arts**

Art  
Communication (General)  
Comparative Arts  
English  
Journalism  
Theater

## PRE-ART MAJOR

Freshman	Hours	Sophomore	Hours
English (111, 112, 115, 140, A,B,C,D) .....	8	Speech 101 or 102 .....	3
Natural Sciences (Core Requirements — See Page 19) .....	12	Art 101, 102, 103 (Studio Foundations) .....	15
Social Sciences (Core Requirements — See Page 19) .....	12	Art 221, 222, 223 (Painting I, II, & III) and/or	
Art 100 (Fundamentals of Vis. Art) .....	4	Art 231, 232, 233 (Ceramics I, II, & III) .....	12
Comparative Arts (101, 102, 103) .....	9	Art 271 (Life Drawing I) .....	4
Physical Education .....	1	Art 261, 262, 263 (Art History I, II, III) .....	12
Total	46	Physical Education .....	1
		Electives .....	4
		Total	51

## PRE-COMMUNICATIONS (GENERAL) MAJOR

Freshman	Hours	Sophomore	Hours
English (111, 112, 115, 140 A,B,C,D) .....	8	Speech 101 or 102 .....	3
Natural Sciences (Core Requirements — See Page 19) .....	12	Speech 230 (Comm. Th. and Process) .....	4
Social Sciences (Core Requirements — See Page 19) .....	12	Jour. 105, or Speech 105 (Intro. to Mass Comm.) .....	4
Humanities (Core Requirements — See Page 19) .....	12	Speech 215 (Group Discussion) .....	4
Physical Education .....	2	Speech 205-A (Intercollegiate Debate) .....	4
Total	46	Thar. 215 (Acting), or Sp. 220/Thar. 220 (Oral Interp.) .....	3
		Psychology 101 (Principles of Psychology) .....	4
		Electives .....	19
		Total	45

## COMPARATIVE ARTS CONCENTRATION

Freshman	Hours	Sophomore	Hours
Speech I or Speech II .....	3	Music (choose 15 hours) .....	18
English (111, 112, 115, 140, A,B,C,D) .....	8	Music 180 (College Choir) .....	2
Natural Sciences (Core Requirements — See Page 19) .....	12	Music 120 (Music Literature) .....	2
Social Sciences (Core Requirements — See Page 19) .....	12	Music 221 (Music of Baroque Period) .....	3
Comparative Arts 101, 102, 103 .....	9	Music 222 (Music of Classical & Romantic Period) .....	3
Physical Education .....	2	Music 223 (Contemporary Music) .....	3
		Music 175 (Men's Glee Club) .....	1
		Music 176 (Women's Glee Club) .....	1
Total	46	Music 170 A, B, C (Voice) .....	3
		Theater (choose 15 hours) .....	15
		Thar. 101 (A, B, & C) .....	9
		Thar. 215 (Principles of Acting) .....	3
		Thar. 225 (Stage Costume & Make-Up) .....	3
		Art (choose 15 hours) .....	15
		Art 101 (Studio Foundations) .....	5
		Art 102 (Studio Foundations) .....	5
		Art 103 (Studio Foundations) .....	5
		Electives .....	3
		Total	48

Students who enroll in this program should do so with the prior knowledge that when they transfer to a four-year institution they will in most circumstances be required to enroll in only one of the three areas (Theater, Art or Music). The courses taken in the other areas will be electives.

## PRE-ENGLISH MAJOR

Freshman	Hours	Sophomore	Hours
English (111, 112, 115, 140 A,B,C,D) .....	8	Speech 102 (Public Speaking) .....	3
Humanities (Core Requirements — See Page 19) .....	12	English (201, 202, 203) .....	4
Language 111, 112, 113 .....	12*	English (204, 205, 206) .....	4
Natural Sciences (Core Requirements — See Page 19) .....	12	English 225, 226 .....	8
P. E. or Health .....	2	Language 211, 212, 213 .....	12*
		Social Science (Core Requirements — See Page 19) .....	12
Total	46	English Elective .....	4
		Total	47

\*Dependent upon previous language experience and college to which the student transfers (see explanation in History Section).

## PRE-JOURNALISM MAJOR

Freshman	Hours	Sophomore	Hours
English (111, 112, 115, 140 A,B,C,D) .....	8	Speech 102 (Public Speaking) .....	3
Government 102 (Logic) .....	4	Economics 101, 102 .....	8
Natural Science (Core Requirements — See Page 19) .....	12	History 101, 102, 103 or History 111, 112, 113 .....	12
Philosophy 101, 102, 103 or Lang. 111, 112, 113 .....	12	Psychology 101 .....	4
Journalism 105 (Intro. to Mass Comm.) .....	4	Journalism 231 (News Reporting) .....	4
Soc. 201 (Current Social Problems) .....	4	Physical Education .....	1
Physical Education .....	1	Electives (Social Sciences) .....	13
<b>Total</b>	<b>45</b>	<b>Total</b>	<b>45</b>

## PRE-THEATER MAJOR

Freshman	Hours	Sophomore	Hours
English (111, 112, 115, 140, A,B,C,D) .....	8	Speech 101 or 102 .....	3
Natural Sciences (Core Requirements — See Page 19) .....	12	3 English Classes at 200 level or above .....	12
Social Sciences (Core Requirements — See Page 19) .....	12	Thar. 101 A, B, C .....	9
Humanities (Core Requirements — See Page 19) .....	12	Thar. 225, Costume and Make-Up .....	3
Physical Education .....	1	Thar. or Inco 220 .....	3
<b>Total</b>	<b>45</b>	Thar. 215 .....	3
		Thar. 100 .....	3
		Thar. 201 .....	5
		Thar. 230 .....	3
		Physical Education .....	1
		<b>Total</b>	<b>45</b>

## **CONCENTRATION AREAS**

### **Mathematics/Sciences**

**Botany  
Chemistry  
Dentistry  
Engineering  
Forestry  
Medical Technology  
Medicine  
Microbiology or Public Health and Sanitation  
Optometry  
Pharmacy  
Physical Therapy  
Veterinary  
Zoology**

## PRE-BOTANY MAJOR

Freshman	Hours	Sophomore	Hours
English (111, 112, 115, 140 A,B,C,D) .....	8	Chemistry 205, 206, 207 .....	12
Speech 102 .....	3	Biology 211 .....	5
Chemistry 141, 142, 143 .....	12	Biology 225 .....	5
Biology 111, 112, 113 .....	16	Biology 210 .....	5
*Math 201, 202 .....	10	Social Sciences (Core Requirements — See Page 19) .....	12
Physical Education .....	2	Humanities (Core Requirements — See Page 19) .....	12
<b>Total</b>	51	<b>Total</b>	51

\*Math 130 sequence may be elected in preparation for calculus.

## PRE-CHEMISTRY MAJOR

Freshman	Hours	Sophomore	Hours
English (111, 112, 115, 140 A,B,C,D) .....	8	Chemistry 205, 206, 207 .....	12
Speech 102 .....	3	Physics 201, 202, 203 .....	12
Chemistry 141, 142, 143 .....	12	Humanities Elective (Core Requirements — See Page 19) .	8
*Math Calculus 201, 202, 203 .....	15	Social Science (Core Requirements — See Page 19) .....	8
Humanities Elective (Core Requirements — See Page 19) .	4	Chemistry 225 & Chem 224 .....	10
Social Science (Core Requirements — See Page 19) .....	4	Physical Education .....	1
Physical Education .....	1	<b>Total</b>	51
<b>Total</b>	47	<b>Total</b>	51

\*Math 130 sequence may be elected in preparation for calculus.



## PRE-DENTISTRY MAJOR

Freshman	Hours	Sophomore	Hours
English (111, 112, 115, 140 A,B,C,D) .....	8	Chemistry 205, 206, 207, 224 .....	17
Speech 102 (Public Speaking) .....	3	Physics 201, 202, 203 .....	12
Chemistry 141, 142, 143 .....	12	Social Sciences (Core Requirements — See Page 19) .....	12
*Math 201, 202 .....	10	Humanities Electives (Core Requirements — See Page 19)	12
Biology 111, 113 .....	11		
Biology 225 .....	5	Total	53
Physical Education .....	2		
Total	51		

\*Math 130 sequence may be elected in preparation for calculus.

## PRE-ENGINEERING MAJOR

A student may obtain one full year in the various areas of Engineering. The freshman schedule should be built around the freshman curriculum of the college or university to which you plan to transfer.

## PRE-FORESTRY MAJOR

### Freshman

	<b>Hours</b>
English (111, 112, 115, 140 A,B,C,D) .....	8
Speech 102 .....	3
Chemistry 141, 142, 143 .....	12
*Math 201, 202 .....	10
Biology 111, 112, 113 .....	16
Physical Education .....	2
<b>Total</b>	<b>51</b>

### Sophomore

See counselor for additional information regarding the Forestry School of Transfer.

\*Math 130 sequence may be elected in preparation for calculus.

## PRE-MEDICAL TECHNOLOGY MAJOR

### Freshman

	<b>Hours</b>
Chemistry 141, 142, 143 .....	12
*Math 201, 202 .....	10
Speech 102 .....	3
Biology 111, 113 .....	11
English (111, 112, 115, 140 A,B,C) .....	8
Physical Education .....	2
<b>Total</b>	<b>46</b>

### Sophomore

	<b>Hours</b>
Chemistry 205, 206, 207 .....	12
Chemistry 225, Chem 224 .....	10
General Genetics (Biology 225) .....	5
Social Science (Core Requirements — See Page 19) .....	12
Humanities Elective (Core Requirements — See Page 19) .	12
<b>Total</b>	<b>51</b>

\*Math 130 sequence may be elected in preparation for calculus.

## PRE-MEDICINE MAJOR

Freshman	Hours	Sophomore	Hours
English (111, 112, 115, 140 A,B,C,D) .....	8	Chemistry 205, 206, 207, 224 .....	17
Speech 102 .....	3	Zoology 225 .....	5
Chemistry 141, 142, 143 .....	12	Physics 201, 202, 203 .....	12
Biology 111, 113 .....	11	Social Sciences (Core Requirements — See Page 19) .....	8
*Math 201, 202 .....	10	Humanities Electives (Core Requirements — See Page 19) .....	12
Social Sciences (Core Requirements — See Page 19) .....	4		
Physical Education .....	2		
	<hr/>	Total	<hr/>
Total	50		54

\*Math 130 sequence may be elected in preparation for calculus.

## PRE-MICROBIOLOGY or PUBLIC HEALTH & SANITATION MAJOR

Freshman	Hours	Sophomore	Hours
English (111, 112, 115, 140 A,B,C,D) .....	8	Chemistry 205, 206, 207, 224 .....	17
Speech 102 .....	3	Physics 201, 202, 203 .....	12
Chemistry 141, 142, 143 .....	12	Social Sciences (Core Requirements — See Page 19) .....	8
Biology 111, 112, 113 .....	16	Humanities Elective (Core Requirements — See Page 19) .....	12
*Math 201 .....	5	Physical Education .....	2
Biology 225 .....	5		
Social Science .....	4		
	<hr/>	Total	<hr/>
Total	53		51

\*Math 130 sequence may be elected in preparation for calculus.

## PRE-OPTOMETRY MAJOR

Freshman	Hours	Sophomore	Hours
English (111, 112, 115, 140 A,B,C,D) .....	8	Chemistry 205, 206, 207, 224 .....	17
Speech 102 .....	3	Physics 201, 202, 203 .....	12
Chemistry 141, 142, 143 .....	12	Social Sciences (Core Requirements — See Page 19) .....	12
Biology 111, 113 .....	11	Humanities Electives (Core Requirements — See Page 19) .....	12
*Math 201, 202 .....	10		
Psychology 101 .....	4		
Physical Education .....	2	Total	53
	<hr/>		
Total	50		

\*Math 130 sequence may be elected in preparation for calculus.

## PRE-PHARMACY MAJOR

Freshman	Hours	Sophomore	Hours
English (111, 112, 115, 140 A,B,C,D) .....	8	Chemistry 205, 206, 207, 224 .....	17
Speech 102 .....	3	Physics 201, 202, 203 .....	12
Chemistry 141, 142, 143 .....	12	Social Sciences (Core Requirements — See Page 19) .....	8
Biology 111, 113 .....	11	Physical Education .....	2
*Math 201, 202 .....	10	Humanities (Core Requirements — See Page 19) .....	12
Economics 101 .....	4		
	<hr/>	Total	51
Total	48		

\*Math 130 sequence may be elected in preparation for calculus.

## PRE-PHYSICAL THERAPY MAJOR

Freshman	Hours	Sophomore	Hours
English (111, 112, 115, 140 A,B,C,D) .....	8	Biology 290B, 291B (Anatomy & Physiology I, II) .....	10
Chemistry 141, 142, 143 .....	12	Speech 102 .....	3
Biology 111, 113 .....	11	Sociology 101 .....	4
Biology 225 .....	5	Physics 201, 202 .....	8
Physical Education 202 .....	4	Psychology 275 .....	5
Psychology 173 .....	5	Psychology 270 .....	5
Math 150 or Psychology 241 .....	5	Humanities Elective (Core Requirements — See Page 19) .	12
	<hr style="width: 50%; margin: 0 auto;"/>	Social Sciences .....	4
Total	50	Total	51

## PRE-VETERINARY MAJOR

Freshman	Hours	Sophomore	Hours
English (111, 112, 115, 140 A,B,C,D) .....	8	Chemistry 205, 206, 207, 224 .....	17
Speech 102 .....	3	Physics 201, 202, 203 .....	12
*Math 201, 202 .....	10	Social Sciences (Core Requirements — See Page 19) .....	12
Chemistry 141, 142, 143 .....	12	Humanities Elective (Core Requirements — See Page 19) .	12
Biology 111, 113 .....	11		
Zoology 225 .....	5	Total	53
Physical Education .....	2		
Total	<hr style="width: 50%; margin: 0 auto;"/>		
	51		

\*Math 130 sequence may be elected in preparation for calculus.

## PRE-ZOOLOGY MAJOR

### Freshman

	Hours
English (111, 112, 115, 140 A,B,C,D) .....	8
Speech 102 .....	3
Chemistry 141, 142, 143 .....	12
Biology 111, 112, 113 .....	16
*Math 201, 202 .....	10
Physical Education .....	2
Social Science .....	4
Total	55

### Sophomore

	Hours
Chemistry 205, 206, 207, 224 .....	17
Physics 201, 202, 203 .....	12
Social Sciences (Core Requirements — See Page 19) .....	8
Biology 225 — Genetics .....	5
Humanities Elective (Core Requirements — See Page 19) .....	12
Total	54

\*Math 130 sequence may be elected in preparation for calculus.



## **CONCENTRATION AREAS**

### **Social Sciences**

Business Administration  
Government  
History  
Pre-Law  
Psychology  
Social Work  
Sociology

## PRE-BUSINESS ADMINISTRATION MAJOR

Freshman	Hours	Sophomore	Hours
English (111, 112, 115, 140 A,B,C,D) .....	8	Humanities (Core Requirements — See Page 19) .....	12
<sup>1</sup> Social Sciences .....	8	Social Sciences .....	4
*Math 201, 202 .....	10	Business Law 250 .....	4
Economics 101, 102 .....	8	Accounting 101, 102 .....	8
Natural Sciences (Core Requirements — See Page 19) .....	12	Speech 102 (Public Speaking) .....	3
Physical Education .....	2	QM 200, 201 (Quantitative Methods) .....	8
Total	48	Electives .....	6
		Total	45

<sup>1</sup>Recommended: Government 101, 102

Sociology 101, 102

Psychology 101, 131

History 211, 212, or 212, 213

\*Math 130 sequence may be elected in preparation for calculus.

## GOVERNMENT MAJOR

Freshman	Hours	Sophomore	Hours
English (111, 112, 115, 140 A,B,C,D) .....	8	Speech 102 (Public Speaking) .....	3
Natural Science (Core Requirements — See Page 19) .....	12	History (111, 112, 113) .....	12
Physical Education .....	2	Any three courses from the following: .....	15
Language 111, 112, 113 .....	12*	Govt. 201 (Urban Politics)	
Government 101, 102 .....	8	Govt. 203 (Pol. in the American States)	
Philosophy (102 or 103) .....	4	Govt. 205 (Appalachian Politics)	
Total	46	Govt. 204 (Intro. to World Politics)	
		Govt. 229 (Current Pol. Topics)	
		Soc. Sci. 210 (Introduction to Urban Politics)	
		Language 212, 213, 211 .....	12*
		Math 150 (Elem. Stat. for Soc. & Behavioral Sciences) .....	4
		Total	46

\*Dependent upon previous language experience and college to which the student transfers (See explanation in History Section).



## PRE-HISTORY MAJOR

Freshman	Hours	Sophomore	Hours
English (111, 112, 115, 140 A,B,C,D) .....	8	Speech 102 (Public Speaking) .....	3
Philosophy 101 (Fundamentals) .....	4	History 111, 112, 113 (United States) .....	12
History 101, 102, 103 (Western Civilization) .....	12	Philosophy 102 (Logic) .....	4
Foreign Language .....	12*	Foreign Language (completion of requirements) .....	0-12*
Natural Science (2 courses in the same area) .....	8	Humanities .....	4
Physical Education .....	2	Natural Science .....	4
		History Electives .....	6
Total	46	Total	45**

\*Depending on the school to which the student plans to transfer *and* depending on how many years of language the student has taken in high school, he/she may be able to complete his/her requirement by taking 0-12 credits of language during his second year. (At Ohio University, a student who has completed 4 years of the same language may complete his college-level language requirements by completing only one course. Inasmuch as that case is quite rare, it is not reflected in the above calculations.)

\*\*This calculation is premised on the assumption that the student will need to take 12 hours of language in his Sophomore year. Should this not be the case (as discussed above), then it is recommended that the student fill out the remaining hours in courses drawn from the social sciences, particularly government and sociology.

## PRE-LAW MAJOR

Freshman	Hours	Sophomore	Hours
English (111, 112, 113, 115, 140 A,B,C,D) .....	8	History 111, 112, 113 .....	12
Philosophy 102 (Logic), 103 (Moral) .....	8	Economics 101, 102 .....	8
Language 111, 112, 113 .....	12*	Psychology 101 (Introduction) .....	4
Lab Science (2 quarter sequence) .....	8	Language 211, 212, 213 .....	12*
Government 101, 102 .....	8	Math 150 (Elem. Stat. for Soc. & Behav. Science) .....	4
Speech 102 (Public Speaking) .....	3	Physical Education .....	2
		Electives .....	3
Total	47	Total	45

\*Dependent upon previous language experience and college to which the student transfers (See explanation in History Section).

## PRE-PSYCHOLOGY MAJOR

<b>Freshman</b>	<b>Hours</b>	<b>Sophomore</b>	<b>Hours</b>
English (111, 112, 115, 140 A,B,C,D) .....	8	Speech 102 (Public Speaking) .....	3
Humanities .....	8	Philosophy .....	4
Natural Sciences (Core Requirements — Biology 111, 120 recommended) .....	12	Language 211, 212, 213 .....	12*
Language 112, 113, 111 .....	12*	Sociology 101 (Prin. of Sociology) .....	4
Psychology 101 .....	4	Sociology 210 (Current Social Problems) .....	4
Math 150 (Elem. Stat. for Soc. & Behav. Science) .....	4	P.E. or Health .....	2-4
		Psychology (Electives) .....	13-15
<b>Total</b>	<b>48</b>	<b>Total</b>	<b>45</b>

\*Dependent upon previous language experience and college to which the student transfers (See explanation in History Section).

## PRE-SOCIAL WORK MAJOR

<b>Freshman</b>	<b>Hours</b>	<b>Sophomore</b>	<b>Hours</b>
English (111, 112, 115, 140 A,B,C,D) .....	8	Speech 102 (Public Speaking) .....	3
Psychology 101 (General Psychology) .....	4	Math 150 (Elem. Stat. for Soc. & Behav. Science) .....	4
Psychology 173 (Child and Adolescent) .....	4	Economics 101, 102 .....	8
Sociology 101 (Principles of Sociology) .....	4	Anthropology 201 .....	5
Natural Sciences (Core Requirements — Biology 111, 120 recommended) .....	12	Sociology 202 (Intro. to Family Sociology) .....	4
Government (101 or 102) .....	4	Government 201 (Urban Politics) or 205 (Appalachian Politics) .....	4-5
Philosophy 102 (Moral Philosophy) .....	4	Humanities (Core Requirements — See Page 19) .....	8
Physical Education .....	2	Electives (Social Sciences) .....	9-10
Electives .....	4		
<b>Total</b>	<b>46</b>	<b>Total</b>	<b>46</b>

\*Language Requirement dependent upon school to which student transfers.

## PRE-SOCIOLOGY MAJOR

<b>Freshman</b>	<b>Hours</b>	<b>Sophomore</b>	<b>Hours</b>
English (111, 112, 115, 140 A,B,C,D) .....	8	Speech 102 .....	3
Humanities (Core Requirements — See Page 19) .....	8	Language (211, 212, 213) .....	12*
Natural Sciences (Core Requirements — Biology 111, 120 recommended) .....	12	Humanities (Core Requirements — See Page 19) .....	4
Language 111, 112, 113 .....	12*	Math 150 (Elem. Stat. for Soc. & Behav. Sciences) .....	4
Sociology 101 (Principles of Sociology) .....	4	Psychology 101 .....	4
Physical Education .....	2	Anthropology 201 .....	5
		Sociology Electives .....	13
<b>Total</b>	<b>46</b>	<b>Total</b>	<b>45</b>

\*Dependent upon previous language experience and college to which the student transfers (see explanation in History Section).



# **BUSINESS TECHNOLOGIES**

**(ASSOCIATE OF APPLIED BUSINESS DEGREE)**

**Accounting**

**Banking & Finance**

**Data Processing and Computer Programming**

**Secretarial**

**General**

**Executive**

**Medical**

**Legal**

**Retail Marketing Management**

# ACCOUNTING TECHNOLOGY

Accounting Technology is designed to give the student a strong background in accounting concepts and principles and experiences in the application of the theory he learns. Emphasis will be placed on the use of modern electronic accounting and calculating machines. The accounting student will be taught to apply his accounting skills in the field of data processing and computers. Students who complete the course work for this technology will receive an Associate Degree in Applied Business.

## Job Opportunities

Positions available in Accounting Technology:

ACCOUNTANT, MACHINE PROCESSING — Coordinates mechanized accounting operations and confers with management and

other department heads to adapt accounting and other record-keeping systems to machine accounting processes.

ACCOUNTING CLERK — Accountant who verifies additions, performs audits, postings, and vouchers, analyzes accounts, and prepares statements, etc.

ACCOUNTANT — Applies principles of accounting to install and maintain operations of general accounting system.

A graduate may gain employment in government agencies, public accounting, business and industry, as industrial accountants, public accountants or bookkeepers for universities, foundations, schools and other institutions.

## ACCOUNTING TECHNOLOGY CURRICULUM

Course No.	Course	Class Code	Class Hrs.	Lab Hrs.	Cr. Hrs.	Course No.	Course	Class Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
<b>FIRST QUARTER</b>						<b>FOURTH QUARTER</b>					
Engl 0111	Contemp. Writing Skills I	G	5	0	4	Soci 0101	Principles of Sociology	G	5	0	4
ExST 0101	Typing I	T	2	4	3	BusL 0250	Business Law I	B	4	0	4
ExST 0120	Business Machines	T	2	3	3	Acct 0211	Inter. Accounting I	T	3	4	4
Acct 0101	Accounting I	T	3	4	4	Psyc 0101	Principles of Psychology	G	5	0	4
Math 0105	Business Math	B	5	0	4	Acct 0242	Business Communications	G	3	2	3
			17	11	18				20	6	19
<b>SECOND QUARTER</b>						<b>FIFTH QUARTER</b>					
Engl 0112	Contemp. Writing Skills II	G	5	0	4	Econ 0101	Principles of Economics I	B	5	0	4
EDPT 0101	Intro. to Data Processing	T	2	3	3	Spch 0101	Speech	G	3	0	3
Math 0101	Basic Algebra	B	5	0	4	Acct 0212	Inter. Accounting II	T	3	4	4
RMMT 0301	Prin. of Management	B	4	0	4	Acct 0221	Cost Accounting I	T	3	3	4
Acct 0102	Accounting II	T	3	4	4	Acct 0205	Principles of Finance	T	3	0	3
			19	7	19				17	7	18
<b>THIRD QUARTER</b>						<b>SIXTH QUARTER</b>					
Engl 0115	Com. & Mass. Com.	G	5	0	4	RMMT 0302	Personnel Management	T	3	0	3
Acct 0103	Accounting III	T	3	4	4	Econ 0102	Principles of Economics II	B	5	0	4
EDPT 0104	Computer Fund. & Proc.	T	2	4	3	Acct 0241	Auditing	T	2	4	3
Acct 0104	Tax Accounting	T	3	3	4	Acct 0222	Cost Accounting II	T	3	3	4
RMMT 0101	Intro. to Business	B	4	0	3	Acct 0213	Inter. Accounting III	T	3	3	4
			17	11	18				16	10	18

## BANKING AND FINANCE TECHNOLOGY

The Banking and Finance Technology Program is designed to provide the individual with a background that will have many opportunities to broaden his knowledge and skills once he is working in a bank or consumer finance company. The student will have an opportunity to participate in a management training program in which the candidate is exposed to the various aspects of financial institutions and operations to which management thinks he may be eventually suited as a potential supervisor, manager or officer. There are courses in Accounting Principles, Money and Banking, Economics, Business Law, Investments, Bank Organization, etc. Students with a background of these courses are needed to staff their fast-growing operations.

### Job Opportunities

Graduates will find employment as an assistant to the credit analyst, trust officer, supervisor of financial services, businessman's advisor, comptroller, or any of the many senior officers employed in the various banks and financial institutions.

There is a wide range of jobs from which a two-year college graduate can choose. Banks need people to work in their commercial loan department where all types of businesses are advised as to the types of financing available.

## BANKING AND FINANCE CURRICULUM

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.	Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
<b>FIRST QUARTER</b>						<b>FOURTH QUARTER</b>					
Engl 0111	Contemp. Writing Skills I	G	5	0	4	Engl 0121	Technical Writing I	G	3	0	3
Math 0105	Business Math	B	5	0	4	Econ 0101	Economics I	B	5	0	4
BusL 0250	Business Law I	B	4	0	4	Psyc 0132	Human Behavior	B	3	0	3
BaFT 0101	Prin. of Banking & Finance I	T	3	2	3	BaFT 0201	Residential Appraising	T	2	3	3
Acct 0101	Accounting I	B	3	4	4	BaFT 0202	Home Mortgage Lending	T	3	3	4
			20	6	19				16	6	17
<b>SECOND QUARTER</b>						<b>FIFTH QUARTER</b>					
Engl 0112	Contemp. Writing Skills II	G	5	0	4	Psyc 0101	Principles of Psychology	G	5	0	4
Acct 0102	Accounting II	B	3	4	4	Spch 0101	Speech I	G	3	0	3
BusL 0260	Business Law II	B	4	0	4	Econ 0102	Economics II	B	5	0	4
RMMT 0227	Credit and Collections	T	5	0	4	BaFT 0203	Valuation of Real Estate	T	2	3	3
BaFT 0102	Prin. of Banking & Finance II	T	2	3	3	BaFT 0204	Investments I	T	5	0	4
			19	7	19				20	3	18
<b>THIRD QUARTER</b>						<b>SIXTH QUARTER</b>					
Engl 0115	Comp. & Mass. Com.	G	5	0	4	Soci 0101	Principles of Sociology	G	5	0	4
Edpt 0102	Intro. to Data	T	2	3	3	RMNT 0302	Personnel Management	T	3	0	3
Acct 0103	Accounting III	T	3	4	4	BaFT 0206	Investments II	T	5	0	4
BaFT 0104	Insurance I	T	2	0	2	BaFT 0207	Mortgage Loan Servicing	T	2	3	3
BaFT 0105	Installment Credit	T	4	0	3	BaFT 0208	Supv. of Personnel Admin.	T	3	0	3
BaFT 0106	Prin. of Bank Operations	T	2	3	3	BaFT 0209	Seminar in Consumer Finance	T	0	4	1
			18	10	19				18	7	18

## DATA PROCESSING AND COMPUTER TECHNOLOGY

The Data Processing and Computer Technology Associate Degree Program at Shawnee State General and Technical College is designed to meet the manpower demand of industries, government, and educational institutions. In addition to theoretical fundamentals, practical aspects of data processing are emphasized. Hands-on opportunity is provided and encouraged. Graduates of this program will be fully prepared to enter employment as staff members (computer programmers or operators) in computer installations and application departments or enroll in a four-year program as a fully accredited junior. Graduates of this technology receive an associate degree in Applied Business.

### Job Opportunities

**PROGRAMMER** — Works closely with systems analysts to define problems, analyze the input data and output report requirements, and prepare a program of instructions which the computer can follow to solve the problem.

**SYSTEMS ANALYST** — Develops ordered methods for data collection, processing, and reporting.

**DATA PROCESSING MANAGER** — Plans, coordinates and directs all data processing activities for organization; supervises computer center and punched card installations.

Other positions are available to the graduate technician after several years of experience.

## DATA PROCESSING AND COMPUTER TECHNOLOGY CURRICULUM

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.	Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
<b>FIRST QUARTER</b>						<b>FOURTH QUARTER</b>					
Engl 0111	Contemp. Writing Skills I	G	5	0	4	Engl 0121	Technical Writing I	G	3	0	3
Acct 0101	Accounting I	B	3	4	4	Soci 0101	Principles of Sociology	G	5	0	4
Math 0111	Data Math I	B	5	0	4	BusL 0250	Business Law I	B	4	0	4
EDPT 0101	Basic Language	T	2	3	3	EDPT 0105	Systems Analysis & Design	T	3	3	4
EDPT 0102	Intro. to Data Processing	T	2	3	3	EDPT 0106	RPG II Language	T	3	4	4
			17	10	18				18	7	19
<b>SECOND QUARTER</b>						<b>FIFTH QUARTER</b>					
Engl 0112	Contemp. Writing Skills II	G	5	0	4	RMMT 0301	Principles of Management	B	4	0	4
Acct 0102	Accounting II	B	3	4	4	Econ 0101	Principles of Economics I	B	5	0	4
Math 0112	Data Math II	B	5	0	4	EDPT 0201	Computer Operations Management	T	3	0	3
EDPT 0103	COBOL I	T	3	4	4	EDPT 0202	Busi. Comp. Projects I	T	3	4	3
Spch 0101	Speech	G	3	0	3	EDPT 0203	Computer Applications	T	2	4	3
			19	8	19				17	8	17
<b>THIRD QUARTER</b>						<b>SIXTH QUARTER</b>					
Engl 0115	Comp. & Mass Comm.	G	5	0	4	Spch 0102	Speech II	G	3	0	3
Acct 0251	Systems Accounting	T	3	2	3	Psyc 0101	Principles of Psychology	G	5	0	4
Math 0106	Business Statistics	B	4	0	4	EDPT 0204	Busi. Comp. Projects II	T	2	3	3
EDPT 0104	COBOL II	T	3	4	4	EDPT 0205	Business Data Systems & Communications	T	2	3	3
EDPT 0206	Fortran IV	T	3	4	4		Business Elective		3-4	0	3-4
			18	10	19				15-16	6	16-17

\*Students who are planning to continue their education toward a four-year degree should have two additional Math classes — Calculus I, and Calculus II.

## **SECRETARIAL TECHNOLOGIES**

**General  
Executive  
Medical  
Legal**

Secretaries are essential to business, industry, government, and the professions.

The demand for good secretaries far exceeds the supply; thus, the education in this field provides many opportunities to work in pleasant, attractive surroundings performing interesting tasks for appreciative people.

As the name of the program implies, the executive secretary must have all the usual secretarial skills plus the ability to make decisions and aid in the implementation of management plans and policies. The basic secretarial skills are learned in the classroom and laboratories of the college under the tutelage of competent instructors. The same instructors, experienced in business and industry, help develop the insight, knowledge, and skills necessary for the smooth and effective operations of office management.

A student completing all the course work for this program receives an Associate degree in Applied Business.

### **Job Opportunities**

Positions available after completion of the Secretarial Technologies are:

**GENERAL SECRETARY** — Is qualified to fill a broad range of office positions which require technical skills. She will not be trained for shorthand dictation but will be qualified as a machine transcriptionist.

**EXECUTIVE SECRETARY** — Has a high degree of stenographic speed and accuracy. Responsible for supervision of other clerical personnel. Usually handles all types of correspondence and handles private and confidential reports.

**MEDICAL SECRETARY** — Prepares medical charts and reports for doctors or hospital personnel, utilizing knowledge of medical terminology. Takes dictation in medical terminology.

**LEGAL SECRETARY** — Prepares legal papers and correspondence of legal nature, such as summonses, complaints, motions, and subpoenas. Takes dictation in legal terminology.

There are advancement possibilities after several years of experience. The secretarial technician can advance to the highest position in the secretarial field. She serves as an administrator of the entire clerical department of an organization, or as the private secretary to the president of a corporation.



## GENERAL SECRETARIAL CURRICULUM (No Shorthand)

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.	Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
<b>FIRST QUARTER</b>						<b>FIFTH QUARTER</b>					
Engl 0111	Contemp. Writing Skills I	G	5	0	4	Spch 0101	Speech I	G	3	0	3
Math 0105	Business Math	B	5	0	4	Psyc 0101	Principles of Psychology	G	5	0	4
RMMT 0101	Introduction to Business	B	4	0	3		Shorthand Elective*	T	3	2	3
ExST 0101	Typing I	T	2	3	3	ExST 0242	Secretarial Practice II	T	2	3	3
ExST 0111	Shorthand I*	T	3	2	3	RMMT 0301	Principles of Management	B	5	0	4
			19	5	17				18	5	17
<b>SECOND QUARTER</b>						<b>SIXTH QUARTER</b>					
Engl 0112	Contemp. Writing Skills II	G	5	0	4	RMMT 0302	Personnel Management	B	3	0	3
ExST 0102	Typing II	T	2	3	3	Psyc 0132	Human Behavior	B	3	0	3
Acct 0101	Accounting I	T	3	4	4	<b>*BLOCK PROGRAM — CLASSROOM</b>					
Soci 0101	Principles of Sociology	G	5	0	4	ExST 0243	Secretarial Practices III	T	0	15	5
	Shorthand Elective*	G	3	2	3	<b>*BLOCK PROGRAM — ON THE JOB</b>					
			18	9	18	ExST 0244	Secretarial Practices IV	T	0	25	5
									6	16	
<b>THIRD QUARTER</b>											
Acct 0242	Business Communications	B	4	0	3						
ExST 0120	Business Machines I	T	2	3	3						
ExST 0221	Dictation and Transcription I	T	3	0	3						
ExST 0103	Typing III	T	2	3	3						
	Shorthand Elective*	G	3	2	3						
ExST 0231	Records Management	T	3	0	3						
			17	8	18						
<b>FOURTH QUARTER</b>											
BusL 0250	Business Law I	B	4	0	4						
	Shorthand Elective*	T	3	2	3						
ExST 0241	Secretarial Practice I	T	2	3	3						
	General Studies Elective	G			3						
ExST 0222	Dictation & Transcription II	T	2	3	3						
ExST 0121	Business Machines II	T	2	3	3						
			13	11	19						

\*The student may take either ExST 0243 or ExST 0244, but his/her choice must be approved by his advisor.

\*Non-shorthand students may elect basic business courses instead of shorthand.

## EXECUTIVE SECRETARIAL CURRICULUM

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.	Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
<b>FIRST QUARTER</b>						<b>FIFTH QUARTER</b>					
Engl 0111	Contemp. Writing Skills I	G	5	0	4	ExST 0242	Secretarial Practices II	T	3	2	3
Math 0105	Business Mathematics I	B	5	0	4	Spch 0101	Speech I	G	3	0	3
RMMT 0101	Introduction to Business	B	4	0	3	Psyc 0101	Principles of Psychology	G	5	0	4
ExST 0101	Typing I	T	2	3	3	ExST 0215	Shorthand V	T	3	2	3
ExST 0111	Shorthand I	T	3	2	3	Econ 0101	Principles of Economics I	B	5	0	4
			19	5	17				19	4	17
<b>SECOND QUARTER</b>						<b>SIXTH QUARTER</b>					
Engl 0112	Contemp. Writing Skills II	G	5	0	4	Econ 0102	Principles of Economics II	B	5	0	4
ExST 0102	Typing II	T	2	3	3	RMMT 0302	Personnel Management	B	3	0	3
ExST 0112	Shorthand II	T	2	3	3	<b>*BLOCK PROGRAM — CLASSROOM</b>					
Acct 0101	Accounting I	T	3	4	4	ExST 0243	Secretarial Practices III	T	0	15	5
Soci 0101	Principles of Sociology	G	5	0	4	<b>*BLOCK PROGRAM — ON THE JOB</b>					
			17	10	18	ExST 0244	Secretarial Practices IV	T	0	25	5
									8		17
<b>THIRD QUARTER</b>											
Engl 0115	Comp. & Mass Comm.	G	5	0	4						
ExST 0120	Business Machines I	T	2	3	3						
ExST 0221	Dictation & Transcription I	T	3	2	3						
ExST 0103	Typing III	T	2	3	3						
ExST 0113	Shorthand III	T	3	2	3						
ExST 0231	Records Management	T	3	0	3						
			18	10	19						
<b>FOURTH QUARTER</b>											
ExST 0121	Business Machines II	T	2	3	3						
BusL 0250	Business Law I	B	4	0	4						
EDPT 0102	Intro. to Data Processing	T	2	3	3						
ExST 0222	Dictation & Transcription II	T	3	2	3						
ExST 0214	Shorthand IV	T	3	2	3						
ExST 0241	Secretarial Practices I	T	3	2	3						
			17	12	19						

\*The student may take either ExST 0243 or ExST 0244, but his/her choice must be approved by his advisor.

## MEDICAL SECRETARIAL CURRICULUM

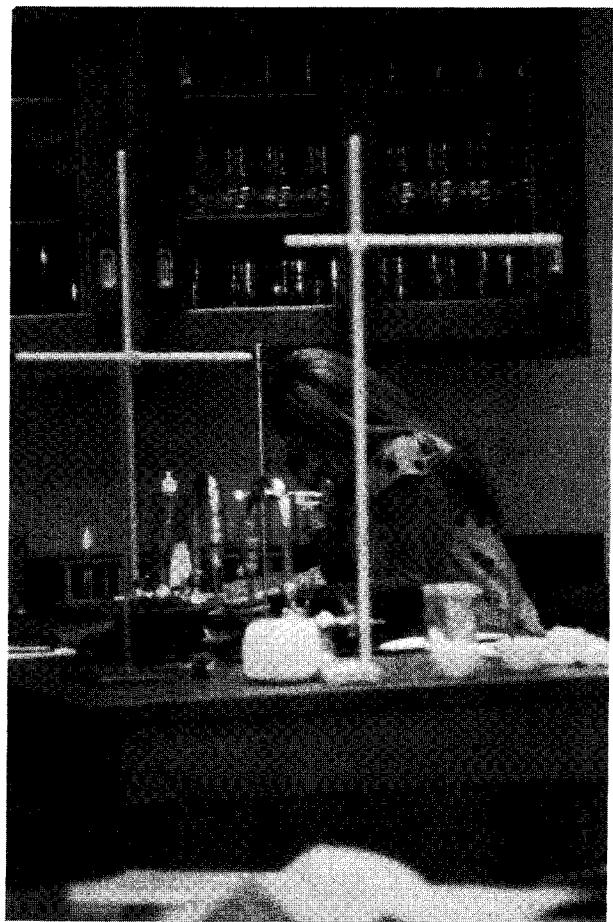
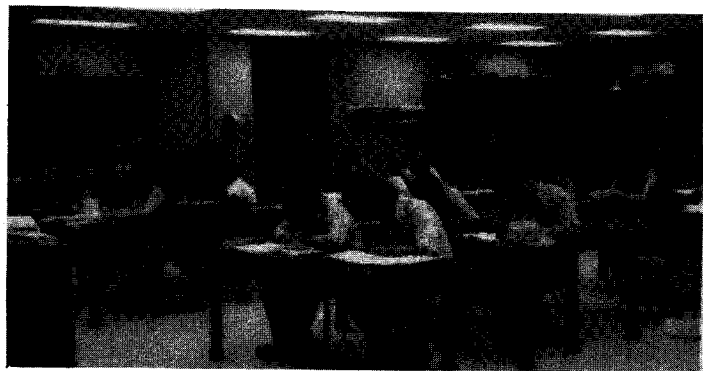
Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.	Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
<b>FIRST QUARTER</b>						<b>FIFTH QUARTER</b>					
Engl 0111	Contemp. Writing Skills I	G	5	0	4	MDST 0242	Medical Secretarial Practices II	T	2	3	3
Math 0105	Business Mathematics I	B	5	0	4	Spch 0101	Speech I	G	3	0	3
RMMT 0101	Introduction to Business	B	4	0	3	Psyc 0101	Principles of Psychology	G	5	0	4
ExST 0101	Typing I	T	2	3	3	MDST 0224	Medical Terminology II	T	2	3	3
ExST 0111	Shorthand I	T	3	2	3	MDST 0112	Medical Shorthand II	T	2	3	3
			19	5	17				14	9	16
<b>SECOND QUARTER</b>						<b>SIXTH QUARTER</b>					
Engl 0112	Contemp. Writing Skills I	G	5	0	4	MDST 0222	Medical Dictation & Trans. II	T	5	0	4
ExST 0102	Typing II	T	2	3	3	RMMT 0302	Personnel Management	B	3	0	3
ExST 0112	Shorthand II	T	2	3	3	<b>*BLOCK PROGRAM — CLASSROOM</b>					
Acct 0101	Accounting I	T	3	4	4	ExST 0243	Secretarial Practices III	T	0	15	5
Soci 0101	Principles of Sociology	G	5	0	4	<b>*BLOCK PROGRAM — ON THE JOB</b>					
			17	10	18	ExST 0244	Secretarial Practices IV	T	0	25	5
									8		17
<b>THIRD QUARTER</b>											
Engl 0115	Comp. & Mass Comm.	G	5	0	4						
ExST 0120	Business Machines I	T	2	3	3						
ExST 0221	Dictation & Transcription I	T	3	2	3						
ExST 0103	Typing III	T	2	3	3						
ExST 0113	Shorthand III	T	3	2	3						
ExST 0231	Records Management	T	3	0	3						
			18	10	19						
<b>FOURTH QUARTER</b>											
MDST 0241	Medical Secretarial Practices I	T	2	3	3						
BusL 0250	Business Law I	B	4	0	4						
MDST 0111	Medical Shorthand I	T	2	3	3						
MDST 0221	Medical Dictation & Transcription I	T	3	2	3						
MDST 0223	Medical Terminology I	G	3	0	3						
	General Studies Elective	G	0	0	3						
			14	8	19						

\*Student may take either ExST 0243 or ExST 0244 but his/her choice must be approved by his advisor.

## LEGAL SECRETARIAL CURRICULUM

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.	Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
<b>FIRST QUARTER</b>						<b>FIFTH QUARTER</b>					
Engl 0111	Contemp. Writing Skills I	G	5	0	4	BusL 0260	Business Law II	B	4	0	4
Math 0105	Business Mathematics I	B	5	0	4	Spch 0101	Speech I	G	3	0	3
RMMT 0101	Introduction to Business	B	4	0	3	Psyc 0101	Principles of Psychology	G	5	0	4
ExST 0101	Typing I	T	2	3	3	LgST 0224	Legal Terminology & Judicial Procedures II	T	2	3	3
ExST 0111	Shorthand I	T	3	2	3	LgST 0112	Legal Shorthand II	T	2	3	3
			19	5	17				16	6	17
<b>SECOND QUARTER</b>						<b>SIXTH QUARTER</b>					
Engl 0112	Contemp. Writing Skills II	G	5	0	4	LgST 0222	Legal Dictation & Trans. II	T	5	0	4
ExST 0102	Typing II	T	2	3	3	RMMT 0302	Personnel Management	B	3	0	3
ExST 0112	Shorthand II	T	2	3	3	<b>*BLOCK PROGRAM — CLASSROOM</b>					
Acct 0101	Accounting I	T	3	4	4	ExST 0243	Secretarial Practices III	T	0	15	5
Soci 0101	Principles of Sociology	G	5	0	4	<b>*BLOCK PROGRAM — ON THE JOB</b>					
			17	10	18	ExST 0244	Secretarial Practices IV	T	0	25	5
									8		17
<b>THIRD QUARTER</b>											
Engl 0115	Comp. & Mass Comm.	G	5	0	4						
ExST 0120	Business Machines I	T	2	3	3						
ExST 0221	Dictation & Transcription I	T	3	2	3						
ExST 0103	Typing III	T	2	3	3						
ExST 0113	Shorthand III	T	3	2	3						
ExST 0231	Records Management	T	3	0	3						
			18	10	19						
<b>FOURTH QUARTER</b>											
LgST 0241	Legal Secretarial Practices I	T	2	3	3						
BusL 0250	Business Law I	T	4	0	4						
LgST 0111	Legal Shorthand I	T	2	3	3						
LgST 0221	Legal Dictation & Transc. I	T	2	3	3						
LgST 0223	Legal Terminology & Judicial Procedures I	T	2	3	3						
	General Studies Elective	G	3	0	3						
			15	12	19						

\*The student may take either ExST 0243 or ExST 0244, but his/her choice must be approved by his advisor.



# RETAIL MARKETING MANAGEMENT TECHNOLOGY

Retailing is the last link in the chain that reaches from the producer or manufacturer to the consumer. It is so closely related to the entire business community that it readily provides an accurate index for judging the health of the economy. The retailer provides an outlet for merchandise and customer services. He is responsible for presenting new articles that may create a new market, as well as being responsible for supplying customer needs.

The retailing industry is particularly attractive because of the variety in the types of work performed by middle managers. Buying, stock control, stock storage, promotion, marketing, accounting, personal management, and legal procedures for retailing are among the many functions a retail marketing-manager performs. As advancement occurs, the marketing-manager increases his responsibility and authority to become an important part of the management team. In multi-unit companies, he may become the manager of a branch organization. He is constantly working with people inside and outside his company to ensure constant development of both sales and profits.



## Job Opportunities

Positions available in retail marketing-management technology:

**DEPARTMENT MANAGER** — Supervises and coordinates activities of workers in department stores and chain stores. Schedules work hours and assigns duties of workers. Orders merchandise, supplies, and equipment.

**BUYER** — Purchases merchandise for resale; selects and orders merchandise from showings of manufacturing representatives, basing selection on nature of clientele, demand for specific merchandise, and experience as buyer.

**ASSISTANT BUYER** — Verifies quantity and quality of stock received from manufacturer. Authorizes payment of invoices or return of shipment. Approves advertising copy for newspaper.

**STORE MANAGER** — Manages retail store, performing following duties personally or through subordinates: hires, trains and discharges employees, plans work schedule and supervises workers to ensure efficient and productive performance of job.

**TRAFFIC MANAGER** — Sees to it that all merchandise reaches the store by the most efficient routing and carrier services; that its receipts are recorded and the records dispatched to the buyer and the inventory control department.

Positions available to the graduate after several years of experience are: district manager, merchandise manager, assistant store manager, personnel manager, recruiter, and manager of a large store.

## RETAIL MARKETING MANAGEMENT CURRICULUM

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.	Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
<b>FIRST QUARTER</b>						<b>FOURTH QUARTER</b>					
Engl 0111	Contemp. Writing Skills I	G	5	0	4	Soci 0101	Prin. of Sociology	G	5	0	4
Math 0105	Business Math	B	5	0	4	RMMT 0225	Retail Case Studies	T	3	2	3
Acct 0101	Accounting I	B	3	4	4	Engl 0122	Technical Writing I	G	5	0	4
RMMT 0101	Intro. to Business	T	4	0	3	BusL 0250	Business Law I	B	4	0	4
EDPT 0101	Intro. to Data Processing	T	2	3	3	RMMT 0233	Sales Promotion	T	3	3	4
			19	7	18				20	5	19
<b>SECOND QUARTER</b>						<b>FIFTH QUARTER</b>					
Engl 0112	Contemp. Writing Skills II	G	5	0	4	Psyc 0101	Prin. of Psychology	G	5	0	4
RMMT 0102	Marketing	T	5	0	4	BusL 0260	Business Law II	B	4	0	4
Acct 0102	Accounting II	T	3	4	4	RMMT 0227	Credit and Collection	T	5	0	4
Spch 0101	Speech I	G	3	0	3	RMMT 0301	Prin. of Management	T	4	0	4
Econ 0101	Prin. of Economics I	B	5	0	4	Spch 0102	Speech II	G	3	0	3
			21	4	19				21	0	19
<b>THIRD QUARTER</b>						<b>SIXTH QUARTER</b>					
RMMT 0240	Retail Accounting	T	2	3	3	RMMT 0302	Personnel Management	T	3	0	3
Engl 0115	Comp. & Mass. Com.	G	5	0	4	RMMT 0223	Retail Buying	T	4	0	4
Econ 0102	Prin. of Economics II	B	5	0	4	RMMT 0235	Advertising	T	3	2	3
RMMT 0103	Intro. to Retailing	T	5	0	4	RMMT 0310	Retail Internship	T	0	25	5
RMMT 0104	Salesmanship	T	3	2	3	RMMT 0311	Special Problems in Retailing	T	0	6	2
			20	5	18				10	33	17

# **ALLIED HEALTH TECHNOLOGIES**

**(ASSOCIATE OF APPLIED SCIENCE DEGREE)**

**Associate Degree Nursing**

**Dental Hygiene**

**Medical Laboratory**

**Radiologic Technology**

## **CERTIFICATE PROGRAMS**

**(One Year)**

**Emergency Medical Technician — Paramedic**

**Respiratory Therapy Technician**

**Practical Nursing**



## **ALLIED HEALTH TECHNOLOGIES ADMISSION PROCEDURES**

### **Dental Hygiene Medical Laboratory**

### **EMT - Paramedic**

### **Radiologic Technology Respiratory Therapy Technician**

1. Student completes the application and sends it to Shawnee State Community College, 940 Second Street, Portsmouth, Ohio 45662; a fee of \$10 which is non-refundable should accompany the completed application.
2. Student completes the transcript request form and gives it to his high school counselor. The high school counselor will then forward the transcript to the college. Also, transcripts of previous college work should be sent to the college.
3. Student has two persons (who are not relatives) send a letter of recommendation to Shawnee State. These letters should be sent to the appropriate program director, 940 Second Street, Portsmouth, OH 45662.
4. Student writes a brief description of his abilities and background, including outstanding accomplishments, and explains why he wants to take the program. This should not exceed three typewritten pages. The College would appreciate receiving a recent picture with the description. Both should be sent to the appropriate program director, 940 Second Street, Portsmouth, OH 45662.
5. Student takes the American College Test (ACT) and has scores forwarded to the College. Other tests may be required depending on program.
6. Student is interviewed by a member of Student Services and Program Director.
7. Completion of Physical Examination is required by the College. (Consult the Program Director for more information concerning the Physical Examination).
8. Student should meet the following requirements to be eligible for the program. The applicant should have:
  - (a) High school average of at least 2.5 on a 4.0 scale.
  - (b) Completed algebra, biology, and chemistry (high school physics would also be helpful for the Respiratory Therapy Program).
  - (c) A natural science score of 15 or more on the ACT.
  - (d) Satisfactory health (physical examination required).
  - (e) If the student meets the above criteria, then an interview with the selection panel is scheduled. Each of the above Allied Health Programs can accept only a limited number of students, therefore, a rating system will be utilized to make final determination of placement in the program. This rating system will take into account the high school average; average grades in algebra, biology, and chemistry; ACT scores; the letters of recommendation; and the panel interview. If all qualified students are not admitted to the class, then an alternate list will be established. Alternates will be admitted if one or more of the original group is unable to enroll.
9. Once a student has been officially admitted to any of the above Allied Health Programs, he has until May 1 or not later than one month after final acceptance to make a deposit of \$100 on the first quarter's tuition. If the student is applying for financial aid, other arrangements are possible. However, it is the student's responsibility to either pay the \$100 or make other arrangements with the Business Office before May 1. If he has done neither of the above, his name will be dropped from the list and an alternate taken into the program.
10. When officially admitted, the applicant will purchase the appropriate uniform and Professional Liability Insurance.

# DENTAL HYGIENE

Working under the supervision of a dentist, the dental hygienist checks and cleans teeth, charts tooth conditions, takes radiographs, applies fluoride, imparts dental health information, sterilizes instruments, and performs other chairside and office duties. Upon successful completion of this two-year program, the student is eligible to take a licensing examination prescribed by the board of dental examiners of the state in which she chooses to practice.

## Accreditation

The Dental Hygiene Program is accredited by the American Dental Association and the Ohio Dental Board.

## Job Opportunities

Dental hygienists practice in the following areas:

FOR DENTISTS IN PRIVATE PRACTICES

SCHOOL SYSTEMS — Primarily concerned with the proper care of

children's teeth. Inspect students' teeth and report findings to a supervising dentist. May also instruct students in proper care of teeth, give demonstrations of the proper use of a toothbrush, and present talks on nutrition and its effects on dental health.

**PUBLIC HEALTH WORK OR PRIVATE WELFARE AGENCIES** — Performs duties similar to those of the school hygienist. However, they work mainly with adults.

**INDUSTRY OR UNION-SPONSORED CLINICS** — Give regular dental service to plant employees, providing such care as examining and cleaning teeth and charting cavities.

**HOSPITALS AND CLINICS** — Concerned primarily with the special oral health problems of the bedridden and chronically ill.

Hygienists with advanced degrees may be employed in research or may teach in dental hygiene educational programs that help students to prepare for the profession.

## DENTAL HYGIENE CURRICULUM

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.	Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
<b>FIRST QUARTER</b>						<b>THIRD QUARTER</b>					
Engl 0111	Contemp. Writing Skills I	G	5	0	4	Engl 0115	Comp. & Mass Comm.	G	5	0	4
DtHy 0111	Head & Neck Anatomy I	B	2	0	2	Dthy 0202	Periodontics	T	3	0	3
Chem 0121	Inorganic Chemistry	B	3	3	4	Dthy 0101	Radiology	T	2	3	3
DtHy 0121	Clinical Dental Hygiene I	T	2	6	4	Dthy 0102	Gen. & Oral Histology and Embryology	T	3	0	3
Biol 0290A	Anatomy & Physiology I	B	3	3	4	Dthy 0123	Clinical Dental Hygiene III	T	1	8	4
DtHy 0113	Tooth Morphology I	T	0	3	1						
			15	15	19				14	11	17
<b>SECOND QUARTER</b>						<b>SUMMER QUARTER</b>					
Engl 0112	Cont. Writing Skills II	G	5	0	4	Dthy 0124	Clinical Dental Hygiene IV	T	2	12	6
DtHy 0112	Head & Neck Anatomy II	B	2	0	2	Dthy 0103	Dental Materials	T	3	6	5
Chem 0122	Organic Chemistry	B	3	3	4	Dthy 0205	Dental Health Education	T	3	0	3
DtHy 0122	Clinical Dental Hygiene II	T	2	6	4						
Biol 0291A	Anatomy & Physiology II	B	3	3	4				8	18	14
DtHy 0114	Tooth Morphology II	T	0	3	1						
			15	15	19						

continued

## DENTAL HYGIENE CURRICULUM continued

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
<b>FOURTH QUARTER</b>					
Biol 0235A	Microbiology	B	3	3	4
Dthy 0201	General & Oral Pathology	T	3	0	3
Dthy 0203	Nutrition	T	3	0	3
Soci 0101	Sociology	G	5	0	4
Dthy 0125	Clinical Dental Hygiene V	T	1	12	5
			—	—	—
			15	15	19
<b>FIFTH QUARTER</b>					
Dthy 0204	Pharmacology & Anesthesiology	B	4	0	4
Dthy 0206	Public Health	T	3	0	3
Dthy 0126	Clinical Dental Hygiene VI	T	1	12	5
Spch 0101	Speech	G	3	0	3
			—	—	—
			11	12	15
<b>SIXTH QUARTER</b>					
DtHy 0127	Clinical Dental Hygiene VII	T	1	12	5
Psyc 0101	Principles of Psychology Electives	G	5	0	4
			—	—	—
			6	12	12

After the first quarter courses, all subsequent basic and technical courses are closely related and, therefore, must be taken in sequential order.

**Please Note:** Only those students that have been officially accepted into the program or received program director approval may take the courses beginning with the DTHY prefix.

In order for a student to continue in the dental hygiene program, the following criteria must be met:

The student must be in good standing; that is, have received a minimum of a C grade in dental hygiene courses and have a minimum of 2.0 GPA overall.

If the student has not met the above criteria, the following procedure must be followed in order for the student to gain readmission.

The student who has received a grade of D or less in any course or has less than an overall 2.000 GPA must petition for readmission into the dental hygiene program for the next quarter. This will require an interview with the director of the program and also a designated member of the student services staff. After the interviews, the decision will be made as to whether the student can continue in the dental hygiene program.

Dismissal from the program does not effect the student's continued enrollment in the college if college academic standards are met.

# MEDICAL LABORATORY TECHNOLOGY

The exciting and newest member of the Medical Laboratory team is the Medical Laboratory Technician; an individual who performs, efficiently and dependably, rather complicated laboratory procedures in areas of Hematology, Serology, Blood Bank, Chemistry, Microbiology, and other areas pertinent to the Clinical Laboratory upon graduation. He develops valuable data to be utilized by qualified physicians in determining the presence, as well as the implications pertaining to the cause of disease. Specific tasks required of those enrolled in this technology include collecting of blood samples, analysis of the constituents of blood and body fluids, preparation and staining slides for cellular and chemical components, concentration of specimens for parasitological study, microscopic examinations of blood, urine and other body fluids, and blood grouping.

The laboratory procedures are implemented in both the teaching laboratory on the campus and the affiliated hospital laboratories, focusing upon basic skills, the understanding of principles, and the mastering of laboratory procedures.

## Accreditation

Accredited by the American Medical Association, Council on Medical Education in collaboration with the American Society of Clinical Pathologists (AMA/CME, ASCP).

## Job Opportunities

Graduates will qualify for employment opportunities in hospital laboratories, independent laboratories, clinics, research institutes, public health facilities, industrial or pharmaceutical laboratories, and environmental laboratories.

The technician upon graduation and employment acceptance, may find a tendency to specialize in blood banking, hematology, special chemistry, research and development, or quality control programs.

In addition to the geographic location of the employment, salaries are commensurate with ability, motivation, and knowledge of clinical laboratory.

## Certification

Graduates of the program qualify to write the National Registry Examinations to become certified as MLT (ASCP).



## MEDICAL LABORATORY CURRICULUM

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.	Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
<b>FIRST QUARTER</b>						<b>FIFTH QUARTER</b>					
Engl 0111	Contemp. Writing I or Elective*	G	5	0	4	Soci 0101	Sociology or Elective*	G	4	0	4
Math 0108	Allied Health Math I	B	5	0	4	MLTc 0211	Clinical Chemistry I	T	2	6	4
Chem 0121	Inorganic Chemistry	B	3	3	4	MLTc 0121	Hematology II	T	2	6	4
Biol 0290A	Anatomy & Physiology I	B	3	3	4	MLTc 0213	Parasitology	T	1	2	1
						MLTc 0102	Medical Microbiology	T	3	3	4
			16	6	16				12	17	17
<b>SECOND QUARTER</b>						<b>SIXTH QUARTER</b>					
Engl 0112	Contemp. Writing II or Elective*	G	5	0	4	MLTc 0212	Clinical Chemistry II	T	2	6	4
Math 0109	Allied Health Math II	B	5	0	4	MLTc 0202	Immunoserology	T	3	3	4
Chem 0122	Organic Chemistry	B	3	3	4	MLTc 0203	Blood Bank	T	2	6	4
Biol 0291A	Anatomy & Physiology II	B	3	3	4	MLTc 0220	Seminar	T	1	0	1
						MLTc 0214	Mycology	T	1	2	2
			16	6	16				9	17	14
<b>THIRD QUARTER</b>						<b>SEVENTH &amp; EIGHTH QUARTERS</b>					
Chem 0123	Biochemistry	B	3	3	4	MLTc 0204	Internship	T	0	40	13
Biol 0235A	Microbiology	B	3	3	4	MLTc 0205	Special Problems	T	2	0	2
MLTc 0120	Hematology I	T	2	6	4						
MLTc 0201	Urinalysis	T	2	3	3				2	40	15
MLTC 0111	Med. Tech. Orientation	T	1	2	1						
			11	17	16						
<b>FOURTH QUARTER</b>											
Engl 0121	Technical Writing	G	4	0	3						
Psych 0101	Psychology or Elective*	G	5	0	4						
Spch 0101	Speech I or Elective*	G	3	0	3						
			12	0	10						

\*Electives in English, Humanities and Social Studies.

### Degree Requirements:

Students will receive an Associate of Applied Science Degree (AAS) upon graduation. In order to qualify for the degree, a student must complete a minimum of 104 quarter credit hours in the following areas: Communications, Natural Sciences, Humanities and Technical Courses.

Please Note: Only those students that have been officially accepted into the program or received program director approval may take the courses beginning with the MLTC prefix.

## RADIOLOGIC TECHNOLOGY

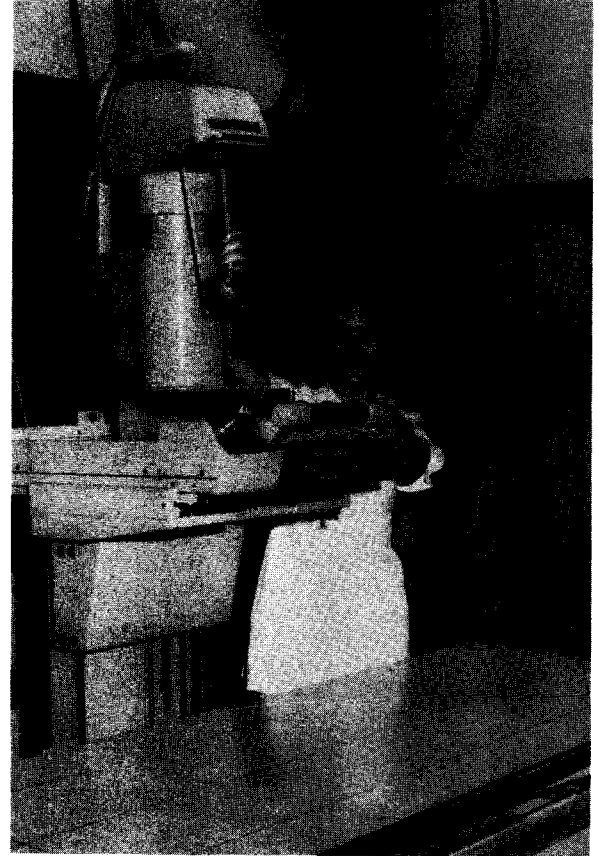
The Radiologic (X-Ray) Technology curriculum will prepare the graduate as a Radiologic Technologist. The Radiologic Technologist works under the supervision of a medical radiologist or physician in hospital x-ray departments, clinics, commercial x-ray laboratories, or doctors' offices. The responsibility of the Radiologic Technologist is to produce radiographic (X-Ray) film of the highest diagnostic quality of any designated area of the human body. It is from this film that the radiologist makes his interpretation. The technologist also works in the x-ray therapy section assisting the radiologist in the administration of radio-therapy.

Curriculum for this program covers eight academic quarters. The first four academic quarters are designed to provide the students with mathematics, basic science, general education courses, auxiliary or supporting technical courses, and specialized technical courses in Radiologic Technology.

The second year of the program consists of internship in hospitals, with specialized courses taught by the hospital staff.

Experience in the radiology departments of the cooperating hospitals provides the opportunities for the practical application of knowledge learned in the college classroom. This training is a vital part of the program, since it enables the student to observe and assist in the handling of sick and injured patients as they undergo a wide variety of radiographic examinations.

Upon satisfactory completion of the course requirements, the graduate will receive the Associate in Applied Science Degree and is eligible to apply for examination by the American Registry of Radiologic Technology.



## RADIOLOGIC (X-RAY) CURRICULUM

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.	Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
<b>FIRST QUARTER</b>						<b>FIFTH QUARTER</b>					
Rd1T 0200	Basic Patient Care	T	3	3	4	Rd1T 0105	Radiologic Technology V	T	4	0	4
Rd1T 0101	Radiologic Technology I	T	2	2	2	Rd1T 0213	Practicum III	T	0	32	6
Biol 0290A	Anatomy & Physiology I	B	3	3	4	Rd1T 0221	Seminar I	T	2	0	2
Engl 0111	Contemp. Writing Skills I	G	5	0	4				6	32	12
Math 0108	Allied Health Math I	B	5	0	4						
			18	8	18	<b>SIXTH QUARTER</b>					
<b>SECOND QUARTER</b>						Rd1T 0106	Radiologic Technology VI	T	4	0	4
Rd1T 0102	Radiologic Technology II	T	2	2	2	Rd1T 0214	Practicum IV	T	0	32	6
Rd1T 0201	Radiographic Exposure I	T	3	2	3	Rd1T 0222	Seminar II	T	2	0	2
Biol 0291A	Anatomy and Physiology II	B	3	3	4				6	32	12
Phys 0201	Physics I (Mechanics)	B	3	3	4	<b>SEVENTH QUARTER</b>					
Engl 0112	Contemp. Writing Skills II	G	5	0	4	Rd1T 0107	Radiologic Technology VII	T	4	0	4
			16	10	17	Rd1T 0215	Practicum V	T	0	24	4
<b>THIRD QUARTER</b>						Rd1T 0223	Seminar III	T	2	0	2
Rd1T 0103	Radiologic Technology III	T	2	3	3	Soci 0101	Principles of Sociology	G	5	0	4
Phys 0202	Physics II (Heat, Light, Sound)	B	3	3	4				11	24	14
Chem 0121	Inorganic Chemistry	B	3	3	4	<b>EIGHTH QUARTER</b>					
Engl 0115	Comp. & Mass Comm.	G	5	0	4	Rd1T 0108	Radiologic Technology VIII	T	4	0	4
Rd1T 0211	Practicum I	T	0	16	2	Rd1T 0216	Practicum VI	T	0	24	4
			13	25	17	Rd1T 0224	Seminar IV	T	2	0	2
<b>FOURTH QUARTER</b>						Spch 0101	Speech I	G	3	0	3
Rd1T 0104	Radiologic Technology IV	T	2	3	3				9	24	13
Rd1T 0111	Physics (Radiologic)	T	3	3	4	<b>NOTE:</b> Hospital laboratory experience consisting of eight (8) contact hours per week is required of all students in the first year.					
Psyc 0101	Principles of Psychology	G	5	0	4	<b>Please Note:</b> Only those students that have been officially accepted into the program or received program director approval may take the courses beginning with the RDLT prefix.					
Engl 0121	Technical Writing	G	3	0	3						
Rd1T 0212	Practicum II	T	0	16	2						
			13	22	16						

# RESPIRATORY THERAPY TECHNICIAN

Respiratory Therapy is an allied health specialty concerned with the treatment, management, control, diagnostic evaluation, and care of patients with deficiencies and abnormalities associated with the cardiopulmonary system. The respiratory technician must be expert in the therapeutic use of such aids to the breathing process as medical gases, oxygen administration, humidification, aerosols, positive pressure ventilation, chest physiotherapy, cardiopulmonary resuscitation, and mechanical airways.

It is the responsibility of the respiratory technician to follow specific instructions from the physician. To do this effectively, he must understand the physical and psychological needs of the patient, the doctor's goal in using respiratory therapy, and where and how the specialist's equipment and knowhow fit into the treatment picture. The complexity of this responsibility requires the services of a highly trained, dedicated technician.

Shawnee State College has a program to help prepare students to meet the requirements for qualified, competent respiratory technicians. Theory and academic studies are presented in classroom and laboratory setting at Shawnee State. Students then gain clinical experience and practice theory by working in various area hospitals under the supervision of qualified instructors. Upon completion of the program and one year of work experience as a respiratory therapy technician, the graduates are eligible to take the national certification examination.

## Job Opportunities

Since Respiratory Therapy is a new and growing field, qualified technicians are in great demand. Hospitals are the major employer of the respiratory technician. Additional experience and education would qualify a person for technical director, assistant director, shift supervisor, staff therapist, outpatient supervisor, and pulmonary function technicians.

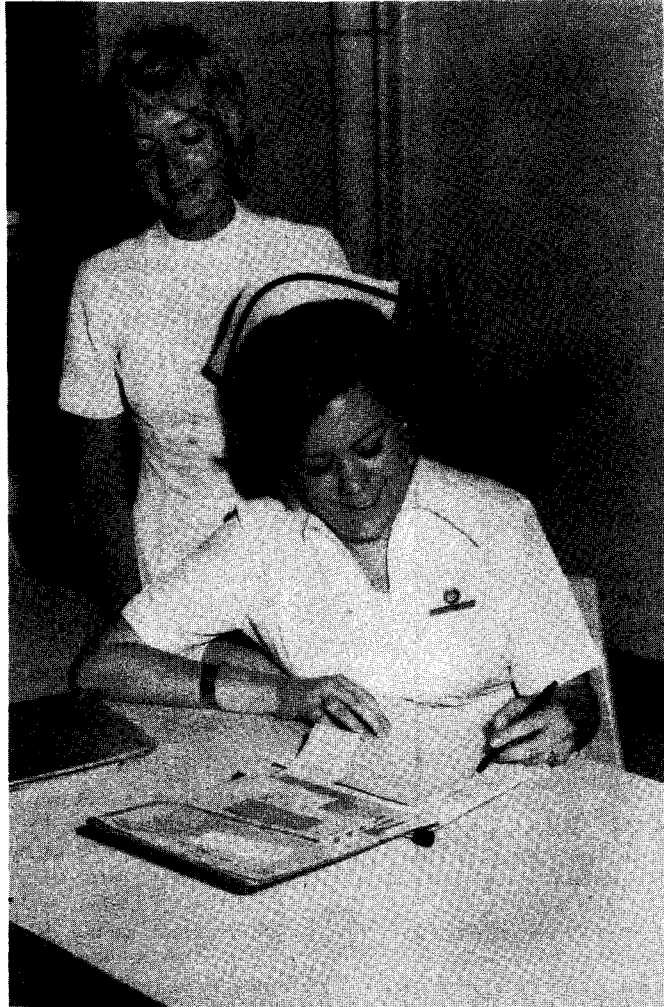
Employment other than hospitals would include instructor, salesperson, or research.

## RESPIRATORY THERAPY CURRICULUM

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.	Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
<b>FIRST QUARTER</b>						<b>THIRD QUARTER</b>					
Math 0108	Allied Health Math I	B	5	0	4	RpTT 0112	Clinical Practice II	T	0	20	6
Chem 0121	Inorganic Chemistry	B	3	3	4	RpTT 0201	Clinical Specialties	T	3	3	4
Biol 0200	Anatomy and Physiology	B	3	3	4	RpTT 0211	Respiratory Procedure I	T	2	3	3
RpTT 0101	Intro. to Resp. Therapy	T	2	0	2	RpTT 0202	Pharmacology	T	4	0	4
RpTT 0102	Intro. to Resp. Ther. Equipment	T	2	3	3				9	26	17
			15	9	17	<b>FOURTH QUARTER</b>					
<b>SECOND QUARTER</b>						RpTT 0113	Clinical Practice III	T	0	20	6
Engl 0111	Contemp. Writing Skills I	G	5	0	4	RpTT 0114	Clinical Practice IV	T	0	20	6
Biol 0235A	Microbiology	B	3	3	4	RpTT 0212	Respiratory Procedure II	T	2	3	3
RpTT 0111	Clinical Practice I	T	0	20	6				2	43	15
RpTT 0121	Cardiopulmonary Physiology	T	4	0	4						
			12	23	18						

Please Note: Only those students that have been officially accepted into the program or received program director approval may take the courses beginning with the RPPT prefix.





# ASSOCIATE DEGREE NURSING

## ADMISSION PROCEDURES

1. Applicant completes the application and sends it to Shawnee State Community College, 940 Second Street, Portsmouth, Ohio 45662; a fee of \$10 which is non-refundable should accompany the completed application.
2. Applicant completes the transcript request form and gives it to his high school counselor. The high school counselor will then forward the transcript to the college. All transcripts of post high school courses should be forwarded to the college.
3. Applicant has two persons (who are not relatives) send a letter of recommendation to Shawnee State Community College. These letters should be sent to the Director of Nursing.
4. Applicant completes the Biographical Information form furnished by the college and sends it to Student Services.
5. Applicant takes the American College Test (ACT) and has scores forwarded to the college. *A minimum score of 16 should be made in all areas.*
6. Applicant takes the National League for Nursing (Pre-Nursing and Guidance) Examination. This examination is given twice a year at the college but may be taken at other locations with results sent to Shawnee State Community College. *All scores must be at the 40th percentile or above with the Reading score at the 50th percentile or above.*
7. Applicant meets the following high school or G.E.D. requirements.
  - (a) Grade average in high school of at least 2.5 on a 4.0 scale.
  - (b) Completed high school level algebra, biology and chemistry with at least a grade of "C."  
(Applicants completing these or equivalent courses more than seven years prior to admission to the Associate Degree Nursing Program must repeat these or equivalent courses with a grade of "C" or better; or applicants may take and pass standardized tests to waive repeating any one of these required courses.)
  - (c) Applicants completing a G.E.D. must show evidence of ability to be successful in college by taking at least two quarters of college work as a full-time student in addition to high school level courses of algebra, biology and chemistry.
  - (d) Admission requirements may be altered at the discretion of the Admissions Committee.
8. Applicants taking college courses prior to acceptance into the nursing program must achieve the grade of "C" in all required non-nursing courses. Applicants achieving lower grades may be admitted with a probationary status.
9. Applicant must have all required information on file before interviews will be scheduled. The applicant will interview with the program director and a counselor.
10. Following the interview, applicant files will be reviewed by the Admissions Committee. Because the Associate Degree Nursing Program can accept only a limited number of students, a rating system will be utilized to make final determination of placement in the program. All information in the applicant's file will be evaluated and rated. The highest rated applicants will be accepted into the program pending the results of their physical examination. Qualified applicants not admitted will be placed on the alternate list.
11. Applicants will be accepted into the program pending the results of a physical examination. Along with the acceptance letter, the applicant will receive the physical examination forms, the liability insurance form and information about uniforms and other needed equipment.
  - (a) Results of the physical exam must be on file with the program director *before* September 1.
  - (b) The professional liability insurance papers must be in the applicant's file by the first day of school.
  - (c) Uniforms and lab coat are to be purchased before school convenes.
12. Officially admitted applicants must deposit \$100 before June 1. Those applying for financial aid or those who are not able to make the deposit are to make arrangements with the Business Office before June 1. If the Business Office has not received either of the above, the applicant's name will be dropped from the list. If notified after June 1, applicants must submit \$100 within ten days following notification of acceptance.

## PROGRAM REQUIREMENTS

Students must meet all the following criteria in order to proceed into the next nursing course.

- (a) Have a grade of 2.000 or better in the nursing course just taken.
- (b) Have successfully passed required non-nursing courses with at least a grade of 2.000 to that point of time.
- (c) Maintain an accumulative grade point average of 2.000 throughout the Associate Degree Nursing Program.

Students requesting readmission must do so in writing in order to obtain the requirements which are on file with Student Services.

It is expected that students will complete the nursing program in no more than three years.

## Associate Degree Nursing

Associate degree nurses graduating from Shawnee State Community College are qualified to take the Ohio State Board examination for registered nurses, and after successfully passing this examination are capable of providing nursing care at a beginning level in hospitals, nursing homes, doctor's offices and clinics, and selected public health agencies.

### Accreditation

The Associate Degree Nursing Program has approval by the Ohio State Board of Nursing Education and Nurse Registration.

### ASSOCIATE DEGREE NURSING CURRICULUM

FIRST YEAR											
Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.	Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
<b>FIRST QUARTER</b>						<b>FOURTH QUARTER</b>					
ADNr 0101	Nursing I	T	6	6	8	ADNr 0201	Nursing IV	T	5	6	7
Psyc 0101	Principles of Psychology	G	4	0	4	ADNr 0202	Nursing V	T	5	6	7
Biol 0290B	Principles of Anatomy & Physiology I	B	4	3	5	Soci 0101	Principles of Sociology	G	4	0	4
			—	—	—				—	—	—
			14	9	17				14	12	18
<b>SECOND QUARTER</b>						<b>FIFTH QUARTER</b>					
ADNr 0102	Nursing II	T	5	6	7	ADNr 0203	Nursing VI	T	5	6	7
Psyc 0173	Human Growth & Devel.	G	4	0	4	ADNr 0204	Nursing VII	T	5	6	7
Biol 0291B	Principles of Anatomy & Physiology II	B	4	3	5				—	—	—
			—	—	—				10	12	14
			13	9	16	<b>SIXTH QUARTER</b>					
<b>THIRD QUARTER</b>						ADNr 0205	Nursing VIII	T	6	24	14
ADNr 0103	Nursing III	T	5	6	7	Please Note: Only those students that have been officially accepted into the program or received program director approval may take the courses beginning with the ADNr prefix.					
Psci 0105	Physical Science	B	4	3	5	It is recommended that prior to taking science courses, applicants take Psyc 0100 Learning Orientation.					
Engl 0111	Contemp. Writing Skills I	G	4	0	4	All suggested or equivalent courses listed for the first four quarters must be completed prior to continuing into the second year.					
			—	—	—						
			13	9	16						
<b>SUMMER QUARTER</b>											
Biol 0235B	Microbiology I	B	3	4	5						
Psyc 0270	Abnormal Psychology	G	5	0	5						
Engl 0112	Contemp. Writing Skills II	G	5	0	4						
			—	—	—						
			13	4	14						

# PRACTICAL NURSING

## ADMISSION PROCEDURES

1. Applicant completes the application and sends it to Shawnee State Community College, 940 Second Street, Portsmouth, Ohio 45662: a fee of \$10 which is non-refundable should accompany the completed application.
2. Applicant has the high school forward his/her transcript to the college or submits a copy of the general equivalency examination (G.E.D.) and a transcript of high school work accomplished.
3. Applicant takes the Psychological Corporation Entrance Examination for Schools of Practical/Vocational Nursing. This examination is given at least once a year at the College, but may be taken at other locations with results sent to the College.
4. Applicant completes the Biographical Sketch form furnished by the College and sends it to the Director of the Program.
5. Applicant has three persons who are not relatives complete the recommendation forms furnished by the College. These forms are to be returned to the Program Director.
6. Applicant is interviewed by the Program Director and a member of the Student Services staff.
7. Applicant must be in good health: state of health is determined by a pre-entrance physical examination by the applicant's physician and includes a chest X-ray, laboratory tests and immunizations.
8. Completed applicant files will be reviewed by the Admissions Committee, consisting of the nursing faculty and a representative of the Student Services staff.
9. Qualified applicants who are not admitted to the class will be placed on the alternate list. Vacancies existing on the first day of fall quarter may be filled from the alternate list.
10. When officially admitted, the applicant has one month to make a deposit of \$100 on the first quarter's tuition. If the applicant is seeking financial assistance it is his/her responsibility to arrange deferment of the deposit with the business office within one month of acceptance. If the applicant does neither, his/her name will be removed from the class list.
11. When officially admitted, the applicant will purchase the appropriate uniform and Professional Liability Insurance.
12. Students applying for re-admission will be evaluated and considered on an individual basis.

## PROGRAM DESCRIPTION

Nursing is considered a personal service to a patient, planned to consider his individual personality as well as his health problem. The focus of practical nursing is to recognize the individual as a unique personality, to maintain body functions, and to protect the patient from illness or accidents. In complex nursing situations, the practical nurse functions as an assistant to a physician or registered nurse.

Each quarter the student must achieve at least an accumulative grade point average of 2.0 as well as a C in each practical nursing course to progress in the program. In courses involving both theory and clinical laboratory experience, the student must achieve at least a C in both areas as failure to do so results in an automatic F in the course. Additional policies are described in the handbook, "Practical Nursing Policies". Upon successful completion of all program requirements, the graduate will receive a diploma in practical nursing and is eligible to apply for examination by the State of Ohio State Board of Nursing Education and Nurse Registration.

### Job Opportunities

The practical nurse may find job opportunities in private duty nursing: institutional nursing in general hospitals or in specific fields, such as obstetric, pediatric, surgical, medical, psychiatric and other specialities. Opportunities exist in other agencies, also: physicians' offices, nursing homes, rehabilitation centers, health centers and visiting nurse programs. Practical nurses are found in industry, such as large factories, airlines and large department stores. Government agencies, namely, the U.S. Army, U.S. Navy and Peace Corps, provide job opportunities.

## PRACTICAL NURSING CURRICULUM

Course No.	Course		Class Hrs.	Lab Hrs.	Clin. Hrs.	Cr. Hrs.
<b>FIRST QUARTER</b>						
LPNr 0101	Body Struc. & Function	B	4	2		4
LPNr 0111	Practical Nursing I	T	6	4	12	10
Psyc 0101	Prin. of Psychology	G	5			4
			15	6	12	18
<b>SECOND QUARTER</b>						
LPNr 0110	Nutrition	B	2			2
LPNr 0112	Practical Nursing II*	T	8	5	14	6
LPNr 0115	Practical Nursing V*	T	8	5	14	6
Soci 0101	Prin. of Sociology	G	5			4
			23	10	28	16

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
<b>THIRD QUARTER</b>					
LPNr 0113	Practical Nursing III*	T	12	2	14
LPNr 0116	Practical Nursing VI*	T	12	2	14
			24	4	28
<b>FOURTH QUARTER</b>					
LPNr 0114	Practical Nursing IV*	T	12	2	21
			12	2	21

\*Half-quarter courses

Please Note: Only those students that have been officially accepted into the program or received program director approval may take the courses beginning with the LPNr prefix.

# EMERGENCY MEDICAL TECHNICIAN — PARAMEDIC

## ADMISSION PROCEDURES

In addition to meeting requirements listed on Page 57, the person seeking admission to the Paramedic Program must be at least 18 years of age, have a high school diploma or GED and possess a current drivers license.

## PROGRAM DESCRIPTION

The paramedic program is designed to prepare persons who can provide life support at the scene of any emergency. The program includes both classroom and hospital experience. In addition to performing the functions of an EMT-ambulance, under the revised code of Ohio the paramedic is further certified to perform the following life support or intensive care techniques: cardiac monitoring; defibrillation; airway or gastric intubation; relief of pneumothorax; and administration of appropriate drugs and intravenous fluids. These functions are performed in conjunction with a cooperating licensed medical doctor, doctor of osteopathic medicine and surgery, or a physician advisory board.

### Examination

Upon completion of the EMT—P training program each student, before receiving a certificate of competency, shall pass a comprehensive examination which has been approved by the Ohio Board of Regents. The certificate of competency is issued by Shawnee State College for a three-year period. Thereafter, the certificate is renewed through the Ohio Board of Regents.

### Job Opportunities

The paramedic may find employment with an ambulance service in either a metropolitan or rural area. In addition, many large companies now employ paramedics in their health and safety divisions. While hospitals and medical centers frequently employ paramedics, it is uncertain at the present time to what extent area hospitals will use the paramedic.

## EMERGENCY MEDICAL TECHNICIAN — PARAMEDIC CURRICULUM

Course No.	Course	Class Code	Class Hrs.	Lab Hrs.	Cr. Hrs.	Course No.	Course	Class Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
<b>FIRST QUARTER</b>						<b>THIRD QUARTER</b>					
Engl 0111	Contemp. Writing Skills I	G	5	0	4	EMT-P 0106	Care of Acute Cardiac Emergencies I	T	6	6	8
EMT-A 0101	EMT Orientation*	T	3	3	5	EMT-P 0107	Equipment & Comm.	T	2	4	3
EMT-A 0102	EMT Conditions & Techniques*	T	4	6	5	EMT-P 0108	Pharmacology	T	4	0	4
Biol 0290A	Anatomy & Physiology I	B	3	3	4				12	10	15
			15	12	18						
<b>SECOND QUARTER</b>						<b>FOURTH QUARTER</b>					
Engl 0112	Contemp. Writing Skills II	G	5	0	4	RMMT 0301	Principles of Management	B	4	0	4
Biol 0291A	Anatomy & Physiology II	B	3	3	4	EMT-P 0109	Care of Acute Medical Emergencies II	T	4	8	6
EMT-A 0103	Advanced Emergency Medical Skills & Techniques	T	4	4	5		Elective (Speech, Sociology or Psychology)	G	3-4	0	3-4
EMT 0104	Extrication, Moving & Handling	T	2	4	3				11-12	8	13-14
			14	11	16						

\*Defensive Driving will be included in the Orientation Class.

## EMERGENCY MEDICAL TECHNICIAN — AMBULANCE

\*Meets course hour requirements as set forth in H.B. 832 and the State Department of Education for certification as an EMT—A.

\*\*Will also be required in 1½ years from now.

### Renewal of Certification: (EMT—A)

Completion of the 27 hour EMT—A refresher course established by the Trade and Industrial Service, Division of Vocational Education, Ohio Department of Education.

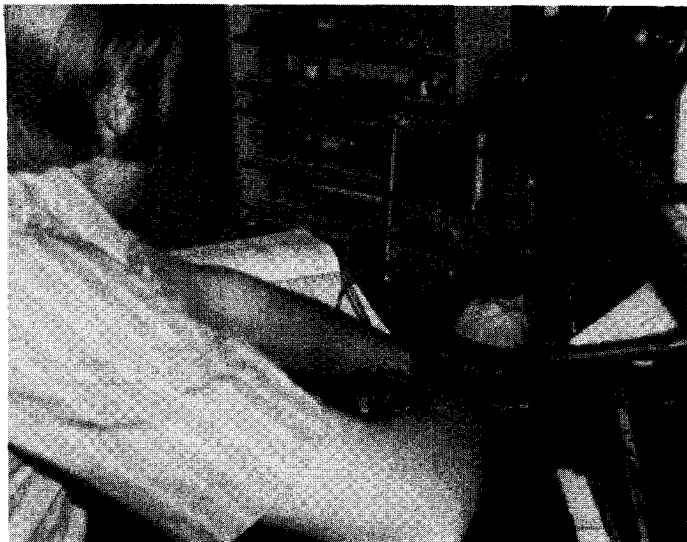
Shawnee State accreditation number for the Paramedic Program is 4-086-004-DT.

### Emergency Medical Technician — Ambulance (EMT—A) Refresher Training Course

The Emergency Victim Care course is designed as the basic course for EMT training. Demonstration and practice is emphasized as the basic teaching method. The refresher course is designed for the EMT who has reached the level of training and is active in the field. This is to be a refresher course, so demonstration and critique of skills are to be emphasized.

This course will consist of a minimum of twenty-seven (27) hours or nine (9) three-hour sessions.

Please Note: Only those students that have been officially accepted into the program or received program director approval may take the courses beginning with any EMT prefix.





# **ENGINEERING AND INDUSTRIAL TECHNOLOGIES**

**(ASSOCIATE OF APPLIED SCIENCE DEGREE)**

**Automotive Technology**

**Civil Engineering**

**Diesel Technology**

**Electro-Mechanical Engineering**

**Plant Maintenance Engineering**

**Plastics/Chemical Engineering**

**Welding Technology**

## **AUTOMOTIVE TECHNOLOGY**

Automotive technicians in research and development prepare engines or related equipment for certain tests and evaluation. This often involves calibration and installation of various devices, operation of test equipment, and recording of data. Technicians in service and sales advise customers on products best suited for their needs. They instruct owners and dealers in new product changes and maintenance developments, and might diagnose product malfunction and make necessary adjustments. Technicians in related areas work in positions such as service-sales engineers for oil companies, insurance claims adjusters, or other jobs where their understanding of automotive, diesel and gas turbines would be useful. Technicians in service and operation work for dealers, wholesale distributors, or other fleet operations, planning facilities and equipment, organizing shop management, and training personnel. Technicians in manufacturing maintain or operate machines, do quality control work, or supervise production. Prospective automotive technicians must be patient and reliable and keenly interested in engines and why and how each part works.

### **Job Opportunities**

**AUTOMOTIVE FIELD TEST TECHNICIAN** (manufacturer-field research & development) — Prepares automotive vehicles for road tests in field proving grounds. Installs various test instruments, operates the vehicle according to the test procedure and records data.

**SERVICE MANAGER** (dealership) — Plans the automotive service department, selects equipment, organizes and manages shop, selects and trains personnel, assists in diagnosing customer problems and develops an effective service department.

**ASSOCIATE RESEARCH TECHNICIAN** — Prepares automotive and diesel test engines and related instruments for conducting fuel and fuel additive tests in the fuel laboratory section of a petroleum company.

**HIGH PERFORMANCE ENGINE TECHNICIAN** (dealership oriented) — Analyzes, tests, and maintains the new family of high performance engines which are now available to the public by the automotive industry.

**HIGH PERFORMANCE ENGINE TECHNICIAN** (racing oriented) — Designs, tests, analyzes, and maintains high performance engines in the various auto racing fields. Also, retro-fits special components to develop improved designs.

## AUTOMOTIVE CURRICULUM

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.	Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
<b>FIRST QUARTER</b>						<b>FOURTH QUARTER</b>					
Engl 0111	Contemp. Writing Skills I	G	5	0	4	Engl 0115	Comp. and Mass Comm.	G	5	0	4
Math 0101	Basic Algebra	B	5	0	4	Auto 0201	Power Drive Train	T	3	4	5
Econ 0101	Principles of Economics I	B	5	0	4	EnDr 0101	Engineering Drawing I	T	1	5	3
AuDl 0101	Fuels and Lubricants	T	2	3	3	RMMT 0233	Sales Promotion	G	3	0	3
AuDl 0102	Basic Electricity	T	2	5	4	Spch 0101	Speech I	G	3	0	3
			19	8	19				15	9	18
<b>SECOND QUARTER</b>						<b>FIFTH QUARTER</b>					
Engl 0112	Contemp. Writing Skills II	G	5	0	4	Psyc 0101	Principles of Psychology	G	5	0	4
Math 0130	College Algebra I	B	5	0	4	Auto 0211	Testing and Repair	T	4	9	6
RMMT 0101	Introduction to Business	G	5	0	4	Auto 0212	Chassis	T	3	6	6
AuDl 0111	Electrical and Fuel Systems I	T	3	6	5	Engl 0121	Technical Writing	G	3	0	3
			18	6	17				15	15	19
<b>THIRD QUARTER</b>						<b>SIXTH QUARTER</b>					
AuDl 0121	Principles of Internal Combustion Engine	T	3	9	6	AuDl 0201	Failure Analysis	T	3	3	4
Math 0131	College Algebra II	B	5	0	4	Auto 0221	Service Area	T	0	20	7
Phys 0201	Physics (Mechanics)	B	3	3	4	Auto 0222	Laboratory Practices	T	0	20	7
AuDl 0112	Electrical and Fuel Systems II	T	3	6	5				3	43	18
			14	18	19						

Students may elect a different sequence of Math with advisor approval.

## **CIVIL ENGINEERING TECHNOLOGY**

The Civil Engineering Technology program prepares a student to become a technician in a field which concerns itself with the planning, design, and construction of both fixed structures and ground facilities for land, sea, or air transportation. It is concerned with the flow and uses of water. It is concerned with protection, in war and peace, against the destructive forces of man or nature. In other words, civil engineers and technicians build airports, bridges, dams, highways, powerhouses, pipelines, and railroads.

Thus, the engineering technician must possess skills, in such a variety of areas as: hydraulics, flood control, irrigation, steel and concrete structural work, field surveying, traffic studies, computations, and the fundamentals of construction. And he is specifically trained to draw up plans and specifications; estimate costs and materials; use the transit, level and other surveying instruments; prepare maps; inspect jobs; and supervise construction.

### **Job Opportunities**

Positions available to the civil engineering technician are:

**COMPUTER** — He determines coordinates for geographic position, land lines, and land monuments in addition to computing quantities.

**CONTRACTOR'S AIDE** — He prepares plans and detail drawings for elements of construction projects.

**ESTIMATOR** — He estimates costs, quantities of materials and supplies, and labor for construction projects.

**INSPECTOR** — He inspects line and grade references, forms, materials, and construction methods.

**SURVEYOR** — Surveys earth's surface and oversees engineering survey partly engaged in determining exact location and measurements of points, elevations, lines, areas, and contours of earth's surface to secure data used for construction map making, land valuation, mining or other purposes. Calculates information needed to conduct survey from notes, maps, deeds, or other records.

Other positions are available to the graduate engineering technician after several years of experience. These include: construction supervisor, highway engineering supervisor, photogrammetrist, and specifications writer.

## CIVIL ENGINEERING CURRICULUM

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.	Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
<b>FIRST QUARTER</b>						<b>FOURTH QUARTER</b>					
Engl 0111	Contemp. Writing Skills I	G	5	0	4	Engl 0121	Technical Writing	G	3	0	3
Math 0130	College Algebra I	B	5	0	4	Phys 0203	Physics III (Heat, Light, & Sound)	G	3	3	4
Econ 0101	Economics I	B	5	0	4	CEng 0211	Highway Construction I	T	5	0	4
CEng 0101	Intro. to Surveying	T	3	0	3	CEng 0113	Route Surveying I	T	2	6	3
EnDr 0101	Engineering Drawing I	T	1	5	3	CEng 0201	Concrete Design	T	4	2	4
			—	—	—				—	—	—
			19	5	18				17	11	18
<b>SECOND QUARTER</b>						<b>FIFTH QUARTER</b>					
Engl 0112	Contemp. Writing Skills II	G	5	0	4	CEng 0202	Civil Engineering Law	T	2	0	2
Math 0131	College Algebra II	B	5	0	4	CEng 0203	Statics	T	4	0	3
Phys 0201	Physics I (Mechanics)	B	3	3	4	CEng 0204	Construction Supervision	T	3	0	3
CEng 0111	Surveying I	T	2	5	3	ENGR 0101	First Aid & Safety	T	1	1	1
EnDr 0102	Engineering Drawing II	T	1	5	3	Psyc 0101	Prin. of Psychology	G	5	0	4
			—	—	—	CEng 0205	Hydraulics for Civil Engr.	T	2	1	2
			16	13	18	CEng 0114	Route Surveying II	T	2	5	3
									—	—	—
									19	7	18
<b>THIRD QUARTER</b>						<b>SIXTH QUARTER</b>					
Engl 0115	Comp. & Mass. Comm.	G	5	0	4	CEng 0206	Engr. Prob. & Field Inspec.	T	0	3	1
Math 0132	Trig. & Anal. Geometry	B	5	0	4	CEng 0212	Highway Construction II	T	5	0	4
Phys 0202	Physics II (Electricity)	B	3	3	4	CEng 0207	Strength of Materials I	T	3	2	3
CEng 0112	Surveying II	T	2	5	3	CEng 0208	Soil Materials & Testing	T	2	3	3
EnDr 0103	Engineering Drawing III	T	1	5	3	CEng 0115	Surveying for Civil Engineers	T	4	0	3
			—	—	—	Soci 0101	Prin. of Sociology	G	5	0	4
			16	13	18				—	—	—
									19	8	18

Students may elect a different sequence of math with advisor approval.

## DIESEL TECHNOLOGY

Diesel technicians repair and maintain diesel engines that power transportation equipment, such as heavy trucks, buses, boats, and locomotives; and construction equipment, such as bulldozers and cranes. They also service diesel farm tractors and a variety of other diesel-powered equipment, such as compressors and pumps used in oil well drilling and in irrigation.

Before making repairs, diesel technicians inspect and test engine components to determine why an engine is not operating properly. After locating the trouble, they repair or replace defective parts and make adjustments. Preventive maintenance — avoiding trouble before it starts — is another major responsibility. For example, they may periodically inspect, test, and adjust engine components.

Many technicians make all types of diesel engine repairs. Others specialize, for example, in rebuilding engines or in repairing fuel injection systems, turbochargers, cylinder heads, or starting systems. Some also repair large natural gas engines used to power generators and other industrial equipment.

### **Job Opportunities**

Many technicians work for distributors and dealers that sell engines, farm and construction equipment, and trucks. Others work for bus lines, construction firms, and government agencies such as State highway departments. Some technicians work for diesel engine manufacturers and independent repair shops that specialize in diesels.

**LUBRICATION SALES TECHNICIAN** — Prepares lubricant and maintenance procedures and schedules for truck fleet operators, heavy construction equipment, road building concerns, and manufacturing companies. Evaluates failures in equipment due to wear, improper lubrication, corrosion, and other problems. Tests oils and greases and recommends changes in types of lubricants and maintenance procedures.

**UTILITY TECHNICIAN** — Compares fuels by ratings on laboratory test (CFR) engines. Determines knock characteristics of motor fuels and compares diesel fuel on the basis of ignition delay. Also assists in tests to determine characteristics of lubricant deposits on engine parts.

**JUNIOR LABORATORY TECHNICIAN** — Assists senior laboratory technicians in operating an experimental oil well drilling rig. Also assists in evaluation of deposit formations on engines and other related equipment.

**ENGINEERING TESTER** (diesel engine manufacturing firm) — Assists test engineers in recording data obtained from diesel engines running with different lubricating oils to determine performance and wear characteristics. Learns to operate electric dynamometers and related instrumentation.

## DIESEL CURRICULUM

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.	Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
<b>FIRST QUARTER</b>						<b>FOURTH QUARTER</b>					
Engl 0111	Contemp. Writing Skills I	G	5	0	4	Dsel 0201	Heavy Duty Drives	T	4	6	6
Math 0101	Basic Algebra	B	5	0	4	Dsel 0202	Diesel Engines	T	4	6	6
Econ 0101	Principles of Economics I	B	5	0	4	Dsel 0211	Diesel Fuel Injections I	T	4	6	6
AuDi 0101	Fuels and Lubricants	T	2	3	3				—	—	—
AuDi 0102	Basic Electricity	T	2	5	4				12	18	18
			—	—	—						
			19	8	19	<b>FIFTH QUARTER</b>					
<b>SECOND QUARTER</b>						Dsel 0212	Diesel Fuel Injection II	T	4	6	6
Engl 0112	Contemp. Writing Skills II	G	5	0	4	Weld 0201	Combined Welding I	T	1	6	3
Math 0130	College Algebra I	B	5	0	4	Engl 0121	Technical Writing I	G	3	0	3
RMMT 0101	Introduction to Business	G	5	0	4	Psyc 0101	Principles of Psychology	G	5	0	4
AuDi 0111	Electrical and Fuel Systems I	T	3	6	5				—	—	—
			—	—	—				13	12	16
			18	6	17	<b>SIXTH QUARTER</b>					
<b>THIRD QUARTER</b>						Dsel 0221	Service & Maintenance Management	G	4	0	4
AuDi 0121	Principles of Internal Combustion Engine	T	3	9	6	Spch 0101	Speech I	G	3	0	3
Math 0131	College Algebra II	B	5	0	4	EMng 0206	Hydraulics and Pneumatics	T	3	3	4
Phys 0201	Physics (Mechanics)	B	3	3	4	AuDi 0201	Failure Analysis	T	3	9	6
AuDi 0112	Electrical and Fuel Systems II	T	3	6	5				—	—	—
			—	—	—				13	12	17
			14	18	19	Students may elect a different sequence of math with advisor approval.					

# **ELECTRO-MECHANICAL ENGINEERING TECHNOLOGY**

An electro-mechanical engineering technician is a para-professional educated for positions which encompass both electrical and mechanical engineering technologies but which demand more than just a simple combination of the two fields. The electro-mechanical engineering technician, for example, may work in the computer industry in positions which could not be handled by the electrical or mechanical engineering technician.

This field is somewhat new to business and industry; therefore, its potential has merely been scratched. Many of the electro-mechanical graduates are working in business and industry at the present time which indicates the demand for their services is great.

## **Job Opportunities**

Positions available in the electro-mechanical technology are almost unlimited. Listed below are some of those positions.

**ELECTRO-MECHANICAL INSPECTOR** — Inspects and tests electrical components, housings, and finished assemblies of electrical sensing devices.

**ELECTRO-MECHANICAL TECHNICIAN** — Fabricates, tests, analyzes, and adjusts precision electro-mechanical instruments.

**ELECTRO-MECHANICAL ASSEMBLER** — Tests assembled electronic scale components with oscilloscope and voltmeter to detect missing parts, loose wires and defective solder joints.

**ELECTRICAL AND ELECTRONIC TECHNICIAN** — Applies electronic theory, principles of electrical circuits, electrical testing procedures, engineering mathematics, physics, and related subjects to layout, building, testing, trouble-shooting, etc.

**ELECTRO-MECHANICAL DESIGN & DEVELOPMENT TECHNICIAN** — Develops detailed design drawings and related specifications of mechanical equipment, according to engineering sketches and design proposal specifications.

Other positions are available to the graduate technician after several years of experience, such as: contractor, designer, estimator, and sales representative.



## ELECTRO-MECHANICAL ENGINEERING CURRICULUM

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.	Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
<b>FIRST QUARTER</b>						<b>FOURTH QUARTER</b>					
Engl 0111	Contemp. Writing Skills I	G	5	0	4	Engl 0121	Technical Writing I	G	3	0	3
Math 0130	College Algebra I	B	5	0	4	Phys 0203	Phys. (Heat, Light, & Sound)	G	3	3	4
Econ 0101	Economics I	B	5	0	4	EMng 0201	Intro. Electro-Mech. Sys.	T	2	3	3
EMng 0111	Electrical Fundamentals I	T	3	3	4	EMng 0202	Mechanical Analysis	T	3	3	4
EnDr 0101	Engineering Drawing I	T	1	5	3	EMng 0203	Mechanics and Dynamics	T	1	3	2
			—	—	—	EMng 0122	Electronics II	T	2	4	3
			19	8	19				—	—	—
									14	16	19
<b>SECOND QUARTER</b>						<b>FIFTH QUARTER</b>					
Engl 0112	Contemp. Writing Skills II	G	5	0	4	Soci 0101	Prin. of Sociology	G	5	0	4
Math 0131	College Algebra II	B	5	0	4	EMng 0211	Electronics Logic Circuits I	T	2	5	3
Phys 0201	Physics I (Mechanics)	B	3	3	4	EMng 0204	Control Devices	T	2	5	3
EMng 0101	Electro-Mechanical Devices	T	2	3	3	EMng 0205	Automatic Control Systems	T	3	3	4
EMng 0112	Elect. Fundamentals II	T	3	3	4	EMng 0206	Hydraulics and Pneumatics	T	3	2	3
			—	—	—	Engr 0101	First Aid and Safety	T	1	1	1
			18	9	19				—	—	—
									16	14	18
<b>THIRD QUARTER</b>						<b>SIXTH QUARTER</b>					
Engl 0115	Comp. & Mass. Comm.	G	5	0	4	Psyc 0101	Prin. of Psychology	G	5	0	4
Math 0132	Trig. & Anal. Geometry	B	5	0	4	EMng 0212	Electronic Logic Circuits II	T	2	5	3
Phys 0202	Physics (Electricity)	B	3	3	4	EMng 0207	Electro-Mechanical Design	T	1	6	3
EMng 0121	Electronics I	B	2	5	4	EMng 0208	Electro-Mechanical Systems	T	2	4	3
EMng 0103	Electro-Mechanical Drawing	T	1	3	2	Engr 0209	Industrial Supervision	T	3	0	3
			—	—	—				—	—	—
			16	11	18				13	15	16

Students may elect a different sequence of math with advisor approval.

## PLANT MAINTENANCE ENGINEERING

Plant maintenance engineering technicians may find themselves employed in any of many major industrial groups including aeronautics, chemistry, petroleum, foods, metals, ceramics, pulp and paper, power, textile, instrument and control manufacturing, or in the emerging fields of space, oceanography, air and water pollution, biomedical instrumentation, and national defense systems.

Depending on his education, ability, and drive, the technician can advance, through experience and further study, from routine mechanical functions to repair, troubleshooting, assisting in design, and design itself. Each of these goals is achieved by combining the technician's general background with specific knowledge about the system apparatus, as follows.

The plant maintenance engineering technician's work consists principally of routine mechanical functions, but also requires the ability to visualize functions or malfunctions of various mechanisms. The work consists of checking out equipment prior to operation, calibrating equipment in operation, rebuilding equipment using standard replacement parts, mounting, interconnecting equipment from blueprints, and the performance of regular, mechanical functions requiring the use of tools (screwdriver, wrench, pliers, electrical drill, soldering iron). Ability to read both instrumentation and electronic schematic diagrams is necessary.

As for the repair instrumentation technician, his primary functions are determining the causes of malfunctioning and instituting necessary repairs. Such repairs usually involve individual pieces of equipment variables such as pressure, flow, temperature, motion, force, and chemical composition, using hand-tools, and precision instruments. Disassembles malfunctioning instruments, and examines and tests mechanism and circuitry for defects. Troubleshooting equipment in or out of control system and replaces or repairs defective parts. Reassembles instrument and tests assembly for conformance with specifications, using instruments such as potentiometer, resistance bridge, manometer, and pressure gauge. Inspects instruments periodically and makes minor calibration adjustments to insure functioning within specified standards. May adjust and repair final control mechanisms such as automatically controlled valves or positioners.

### Job Opportunities

**MAINTENANCE INSTRUMENTATION TECHNICIAN** — Performs standard calibrations for production purposes; checks results. May be employed to work on pneumatic, hydraulic, or electrical and/or electronic equipment. Works with hand tools and soldering iron.

**INSTRUMENT SALES TECHNICIAN** — Works for equipment manufacturing company, analyzing customer needs for specific control instruments; outlines specifications for cost and function of equipment; needs to be capable of doing emergency, goodwill troubleshooting.

**PLANT MAINTENANCE ENGINEER** — A term applied to one who designs and supervises operation and maintenance of electrical, mechanical, and thermal instruments and control equipment necessary for safe and efficient operation of industrial plant. Studies plant layout and process requirements to determine type and number of items needed. Writes specifications for selection of stock or special instruments from suppliers. Directs installation, calibration, and testing of equipment. Supervises application, inspection, and maintenance of instruments in operation.

**INSTRUMENTATION TECHNICIAN** — Devices, sets up, and operates electronic instrumentation and related electromechanical or electrohydraulic apparatus involved in operational and environmental testing of mechanical, structural, or electrical equipment, and translates test data for subsequent use by engineering personnel in making engineering design and evaluation decisions.

## PLANT MAINTENANCE ENGINEERING CURRICULUM

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.	Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
<b>FIRST QUARTER</b>						<b>FOURTH QUARTER</b>					
Engl 0111	Contemp. Writing Skills I	G	5	0	4	Engl 0121	Technical Writing I	G	3	0	3
Math 0101	Basic Algebra	B	5	0	4	PMnt 0201	Instrumentation Electronics	T	3	6	5
PMnt 0101	DC Circuits and Machines	T	2	5	4	Psyc 0101	Principles of Psychology	G	5	0	4
EnDr 0100	Blueprint Reading	T	2	0	2	PMnt 0211	Fluid Mechanics I	T	3	3	4
EnDr 0101	Engineering Drawing I	T	1	5	3	Engr 0101	First Aid and Safety	T	1	1	1
			15	10	17				15	10	17
<b>SECOND QUARTER</b>						<b>FIFTH QUARTER</b>					
Engl 0112	Contemp. Writing Skills II	G	5	0	4	EMng 0206	Hydraulics and Pneumatics	T	3	2	3
Math 0130	College Algebra I	B	5	0	4	PMnt 0212	Fluid Mechanics II	T	3	3	4
PMnt 0102	AC Circuits and Machines	T	2	5	4	Econ 0101	Principles of Economics I	G	5	0	4
Phys 0201	Physics (Mechanics)	B	3	3	4	PMnt 0221	Instrument Fundamentals I	T	4	8	7
			15	8	16				15	13	18
<b>THIRD QUARTER</b>						<b>SIXTH QUARTER</b>					
Engl 0115	Comp. and Mass Comm.	G	5	0	4	Engr 0209	Industrial Supervision	T	3	0	3
Math 0131	College Algebra II	B	5	0	4	PMnt 0222	Instrument Fundamentals II	T	4	8	7
PMnt 0111	Industrial Electronics	T	2	5	4	PMnt 0223	Measurement Principles	T	3	4	4
Chem 0202	Process Instrumentation	T	3	3	4	PMnt 0224	Industrial Control	T	3	3	4
			15	8	16				13	15	18

Students may elect a different sequence of Math with advisor approval.

## PLASTICS/CHEMICAL ENGINEERING

Due to the close relationship between Plastics Engineering and the Chemical Technology Program, it has become desirable to combine them into one program but still allowing students to choose technical electives from either the plastics or chemical field.

Today, plastics is one of the fastest growing industries in the United States. The plastics industry is expanding both in volume and variety of products. Manufacturers are doing extensive research to see how plastics can improve their products, reduce costs, and simplify production.

Plastics led all other industries in projected growth through 1980 in a recent forecast. The percentage of growth of output for plastics over the next fifteen years was set at 722 percent. By comparison, the electric utilities industry was forecast to grow 166 percent; rubber, 154 percent; paper, 102 percent; iron and steel, 156 percent; stone, clay and glass, 75 percent.

The chemical industry is one of the most dynamic in terms of growth. The Ohio River Valley from Pittsburgh to Louisville is perhaps the largest chemical producing areas in America, and provides a great employment opportunity for graduates.

The role of the technician in the chemical industry will constantly change as job content, responsibilities, opportunity, and initiative increase. This signifies that technicians' contributions will become an ever stronger part of the very fabric of the industry, building upon the strong base that exists today.

### Job Opportunities

Positions available for the Plastics/Chemical graduate might be:

**CHEMICAL PRODUCTION TECHNICIAN** — Controls operation of chemical production facilities, and is responsible for maintaining high production levels.

**CHEMICAL RESEARCH TECHNICIAN** — Assists chemists and engineers in the development of new products and processes by designing, constructing, and operating experimental chemical plants or by performing laboratory experiments.

**CHEMICAL QUALITY CONTROL TECHNICIAN** — Assures a high quality level in products manufactured by performing chemical tests in the laboratory.

**POLLUTION CONTROL TECHNICIAN** — Takes samples of air and water and analyzes them to assure low pollution levels. Assists in the development of pollution control methods.

**CHEMICAL SALES OR TECHNICAL SERVICE REPRESENTATIVE** — Aids customers in the choice of the correct product to purchase and assists in solving customer problems.

**QUALITY CONTROL TECHNICIAN** — Samples raw materials and finished products and performs tests to assure compliance with quality specifications.

**PILOT PLANT TECHNICIAN** — Assistant to an engineer, operates experimental plants. Responsible for taking data and making observations.

**APPLICATION RESEARCH TECHNICIAN** — Blends and compounds plastics with additives, filters, colors, etc. Assists in selecting proper plastics for specific products and applications.

**PLASTIC ARTICLE PRODUCTION TECHNICIAN** — Operates and supervises the operation of commercial equipment used in the production of plastic items, such as extruder, injection molding machine, thermoformer, etc.

**SENIOR TECHNICIAN** — Supervises other technicians in all operations and takes part in new projects or process evaluation.

**TECHNICAL SERVICE REPRESENTATIVE** — As an employee of a plastics resin or equipment manufacturer, aids customers in the proper selection and use of such products, and in solving customer problems.

Other positions would be available upon the attainment of several years of experience. Supervisory level positions are open to the experienced technician with a good technical background as well as the ability and desire to assume responsibility.

## PLASTICS/CHEMICAL ENGINEERING CURRICULUM

Course No.	Course	Class Code	Class Hrs.	Lab Hrs.	Cr. Hrs.	Course No.	Course	Class Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
<b>FIRST QUARTER</b>						<b>FOURTH QUARTER</b>					
Engl 0111	Contemp. Writing Skills I	G	5	0	4	Engl 0121	Technical Writing	G	3	0	3
Chem 0141	Chemistry I	B	3	3	4	PEng 0206	Intro. to Chemical Engineering	T	3	2	3
Math 0130	College Algebra I	B	5	0	4	Phys 0201	Physics (Mechanics)	B	3	3	4
PEng 0102	Machine Tools	T	1	3	2		Technical Elective	T	5-6	5-6	7
PEng 0101	Intro. to Plastics/ Chemical Tech.	T	3	2	3				—	—	—
			—	—	—				14-15	10-11	17
			17	8	17						
<b>SECOND QUARTER</b>						<b>FIFTH QUARTER</b>					
Engl 0112	Contemp. Writing Skills II	G	5	0	4	PEng 0204	Industrial Economics	B	5	0	4
Math 0131	College Algebra II	B	5	0	4	Engr 0101	First Aid and Safety	T	1	1	1
EnDr 0101	Engineering Drawing I	T	1	6	3	Phys 0202	Physics (Electricity)	B	3	3	4
Chem 0142	Chemistry II	B	3	3	4		Technical Electives	T	6-7	5-8	7-9
Engr 0209	Industrial Supervision	T	3	0	3				—	—	—
			—	—	—				15-16	9-12	16-18
			17	9	18						
<b>THIRD QUARTER</b>						<b>SIXTH QUARTER</b>					
Engl 0115	Comp. and Mass Comm.	G	5	0	4	Phys 0203	Physics (Heat, Light, Sound)	B	3	3	4
Chem 0143	Chemistry III	B	3	3	4	PEng 0202	Production Control and Planning	T	3	3	4
Math 0132	Trigonometry & Analytic Geometry	B	5	0	4	PEng 0207	Fundamentals of Process Equip. and Maintenance	T	2	0	2
	Technical Elective	T	3-4	3	3-4		Technical Electives	T	6	6	8
			—	—	—				—	—	—
			16-17	6	15-16				14	12	18

Students may elect a different sequence of math with advisor approval.

## WELDING TECHNOLOGY

Persons planning careers as welders or cutters need manual dexterity, good eyesight, and good eye-hand coordination. They should be able to concentrate on detailed work for long periods, and should be free of any physical disabilities that would prevent them from bending, stooping, and working in awkward positions. Courses in mathematics, mechanical drawing, blueprint reading, and physics also are helpful.

New developments are requiring new skills of welders. This is particularly true in fields such as atomic energy or missile manufacturing, which have high standards for the reliability of welds. Before being assigned to work on buildings, bridges, or other jobs where the strength of the weld is highly critical, welders may be required to pass an examination of their welding skills given by an employer or government agency. Welders who pass such examinations are generally referred to as "certified welders."

Promotion opportunities for welders are good. Welding machine tenders may learn skilled welding jobs; skilled welders may be promoted to welding inspectors, technicians, or supervisors. Experienced workers who have obtained **college training on the properties of metal** are in great demand to develop new applications for welding.

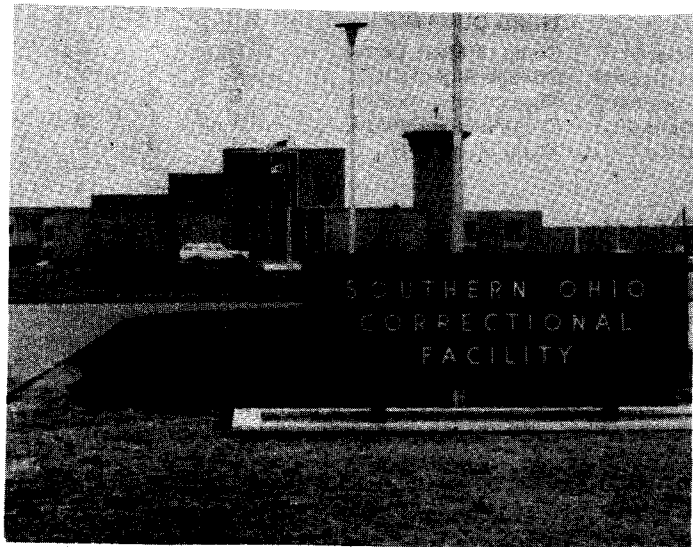
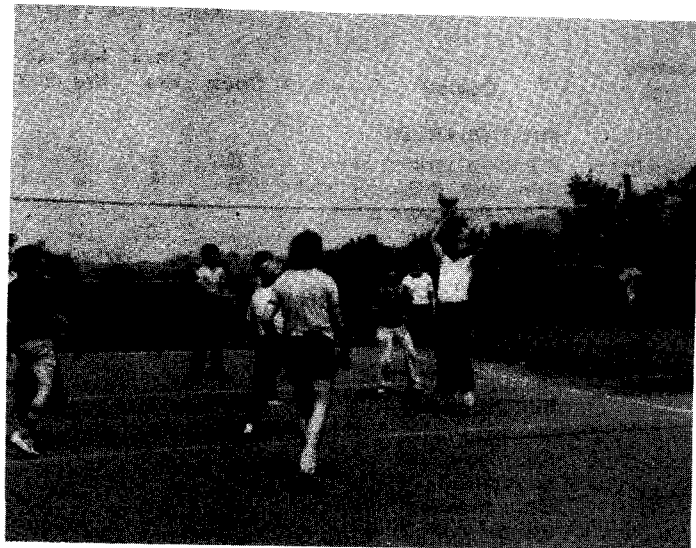
### **Job Opportunities**

Employment opportunities should be especially good for skilled welders in nuclear powerplant, pipeline, and ship construction jobs. Recent reports indicate that a shortage of skilled welders exists in these industries.

## WELDING TECHNOLOGY CURRICULUM

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.	Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
<b>FIRST QUARTER</b>						<b>FOURTH QUARTER</b>					
Engl 0111	Contemp. Writing Skills I	G	5	0	4	Spch 0101	Speech I	G	3	0	3
Econ 0101	Principles of Economics I	B	5	0	4	Weld 0202	Combined Welding II	T	1	6	3
Weld 0101	Template Layout & Construction	T	0	3	1	Weld 0122	Welding Metallurgy	T	1	3	2
Weld 0111	Basic Oxy-Acetylene Welding	T	2	8	5	Engr 0209	Industrial Supervision	T	3	0	3
Math 0101	Basic Algebra	B	5	0	4	Engr 0101	First Aid & Safety Electives	T	1	1	1
								T	0	0	6
			17	11	18				9	10	18
<b>SECOND QUARTER</b>						<b>FIFTH QUARTER</b>					
Engl 0112	Contemp. Writing Skills II	G	5	0	4	Engl 0121	Technical Writing I	G	1	6	3
Math 0130	College Algebra I	B	5	0	4	Psyc 0101	Psychology	G	5	0	4
Phys 0201	Physics (Mechanics)	B	3	3	4	Weld 0203	Combined Welding III	T	1	6	3
Weld 0112	Basic Inert Gas Welding	T	1	5	3	EMng 0206	Hydraulics & Pneumatics	T	2	3	3
Weld 0113	Basic Arc Welding	T	1	10	4	Weld 0211	Welding Symbols & Prints	T	3	3	4
			15	18	19				12	18	17
<b>THIRD QUARTER</b>						<b>SIXTH QUARTER</b>					
Engl 0115	Comp. & Mass Comm.	G	5	0	4	Soci 0101	Sociology	G	5	0	4
Math 0131	College Algebra II	B	5	0	4	Weld 0212	Advanced Welding	T	1	8	5
Phys 0202	Physics (Electricity)	B	3	3	4	Weld 0213	Advanced Inert Gas Welding	T	1	6	3
Weld 0201	Combined Welding I	T	1	6	3		Elective	T	0	0	6
Weld 0121	Basic Metallurgy	T	3	0	3				7	14	18
			17	9	18						

Students may elect a different sequence of math with advisor approval.





**PUBLIC SERVICE TECHNOLOGIES**  
**(ASSOCIATE OF APPLIED SCIENCE DEGREE)**

**Corrections Technology**

**Social Services Technology**

**NATURAL RESOURCES TECHNOLOGY**  
**(ASSOCIATE OF APPLIED SCIENCE DEGREE)**

**Parks and Recreation Administration**

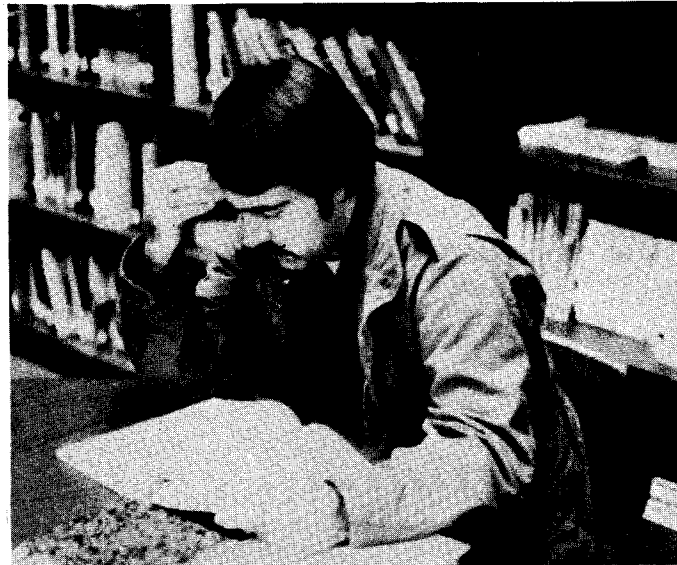
## CORRECTIONS TECHNOLOGY

The Corrections Technology Program is designed to provide the student with an understanding of deviant behavior within modern society. Specially designed courses will deal with the problems of correctional law, the prevention, identification, and correction of deviant behavior.

The correctional specialist works in major areas as group supervisors, correctional officers, and other instructional personnel concerned generally with the custody and care of offenders in group settings. More than 50% of the personnel in the correctional field belong to this group.

### **Job Opportunities**

Graduates are specialists trained to assist in the supervision, research, and administration necessary to estimate and determine the appropriate time to release an inmate from an institution and ultimately discharge him from supervision. They are qualified to become correctional officers.



## CORRECTIONS CURRICULUM

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.	Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
<b>FIRST QUARTER</b>						<b>FIFTH QUARTER</b>					
Engl 0111	Comtemp. Writing Skills I	G	5	0	4	Engl 0121	Technical Writing I	G	3	0	3
Math 0105	Business Mathematics	B	5	0	4	CorT 0122	Correctional Internship — Field Experience	T	0	3	1
CorT 0101	Introduction to Corrections	T	3	0	3	CorT 0205	Group Interaction	T	1	4	2
CorT 0102	Criminology	T	4	0	4	CorT 0206	Correctional Case Evaluation	T	3	6	5
Psyc 0101	Principles of Psychology	G	5	0	4	CorT 0207	Observation Techniques	T	2	2	2
			—	—	—	CorT 0208	Correctional Programs	T	5	0	5
			22	0	19				—	—	—
									14	15	18
<b>SECOND QUARTER</b>						<b>SIXTH QUARTER</b>					
Engl 0112	Contemp. Writing Skills II	G	5	0	4	CorT 0123	Correctional Internship — Field Experience	T	0	3	1
CorT 0103	Juvenile Delinquency	T	2	3	3	CorT 0209	Research Appreciation in Corr.	T	4	3	5
CorT 0104	Criminal Law	T	3	0	3	CorT 0210	Principles of Leadership	T	4	0	4
Soci 0101	Principles of Sociology	G	5	0	4	CorT 0212	Community Programs	T	3	6	5
CorT 0105	Probation & Parole	T	3	3	4	Govt 0100	Intro. to American Systems	B	4	0	4
			—	—	—				—	—	—
			18	6	18				15	12	19
<b>THIRD QUARTER</b>											
Engl 0115	Comp. & Mass Comm.	G	5	0	4						
Psyc 0270	Abnormal Psychology	G	4	0	4						
CorT 0106	Constitutional Law	T	3	0	3						
CorT 0107	Philosophy of Corrections	T	2	2	2						
ExST 0101	Typing I	T	2	3	3						
			—	—	—						
			16	5	16						
<b>FOURTH QUARTER</b>											
Spch 0101	Speech I	G	3	0	3						
CorT 0121	Correctional Internship — Field Experience	T	0	3	1						
CorT 0201	Corr. Interview & Counseling Technique	T	2	3	3						
CorT 0202	Drug Abuse	T	2	3	3						
CorT 0203	Correctional Psychology	T	5	0	4						
CorT 0204	Correctional Law	T	4	3	5						
			—	—	—						
			16	12	19						

It is highly recommended that courses CorT 0101, CorT 0102, and Psyc 0101 be taken by the beginning Corrections student before proceeding to other course work; however, this is not a requirement.

# SOCIAL SERVICES TECHNOLOGY

The Social Services Technology Program provides a two-year college level program for high school graduates interested in working with the people of the local community and in helping them with their daily problems.

Opportunities in health, education and welfare have expanded more rapidly than has the number of highly trained specialists to meet them.

## Job Opportunities

Graduates are specialists trained in field work, specialized courses in both group work and casework, human relationships, race relations, social problems, and group dynamics and leadership. They are qualified to become case workers, child care workers, mental health aides, rehabilitation aides, and vocational counselor trainees.

## SOCIAL SERVICE CURRICULUM

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.	Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
<b>FIRST QUARTER</b>						<b>FOURTH QUARTER</b>					
Engl 0111	Contemp. Writing Skills I	G	5	0	4	SSTc 0201	Public & Child Welfare	T	3	2	3
Soci 0101	Prin. of Sociology	G	5	0	4	CorT 0102	Criminology	T	4	0	3
Psyc 0101	Prin. of Psychology	G	5	0	4	SSTc 0212	Penology & Corrections	T	3	3	4
Psyc 0173	Human Growth & Devel.	B	3	2	4	SSTc 0204	Social Group Work	T	2	0	2
SSTc 0102	Intro. to Social Services	T	3	2	3	Econ 0101	Prin. of Economics I	B	5	0	4
			—	—	—	SSTc 0113	Social Serv. Internship III	T	0	6	2
			21	4	19				—	—	—
									17	11	18
<b>SECOND QUARTER</b>						<b>FIFTH QUARTER</b>					
Engl 0112	Contemp. Writing Skills II	G	5	0	4	Econ 0206	Consumer Economics	B	5	0	4
SSTc 0103	Contemp. Social Problems	B	4	0	3	SSTc 0205	Historic Background to Urban Society	B	3	2	3
SSTc 0107	Sociology of Education	B	5	0	4	SSTc 0210	Medical Sociology	T	3	0	3
Psyc 0131	Human Adjustment	B	3	0	3	SSTc 0207	U.S. Minority Groups	T	3	0	3
SSTc 0104	Personal Growth & Devel.	T	2	0	2	SSTc 0114	Social Serv. Internship IV	T	0	6	2
SSTc 0111	Social Serv. Internship I	T	0	6	2	CorT 0103	Juvenile Delinquency	T	4	0	3
			—	—	—				—	—	—
			19	6	18				18	8	18
<b>THIRD QUARTER</b>						<b>SIXTH QUARTER</b>					
Engl 0115	Comp. & Mass. Comm.	G	5	0	4	SSTc 0208	Community & Community Resources	T	3	2	3
SSTc 0105	Marriage and the Family	T	3	1	3	SSTc 0209	Seminar	T	1	3	2
Spch 0101	Speech I	G	3	0	3	SSTc 0203	Gerontology	T	4	0	3
SSTc 0106	Rehabilitation	T	2	0	2	SSTc 0211	Social Prob. & Police Relations	T	2	3	3
Psyc 0270	Abnormal Psychology	G	5	0	4		Electives	G	3	0	3
SSTc 0112	Social Serv. Internship II	T	0	6	2	SSTc 0115	Social Serv. Internship V	T	0	6	2
			—	—	—				—	—	—
			18	7	18				13	14	16



# **NATURAL RESOURCES TECHNOLOGY (ASSOCIATE OF APPLIED SCIENCE DEGREE)**

## **PARKS AND RECREATION ADMINISTRATION**

The Park and Recreation curriculum is designed to graduate a technician capable of handling design, layout, and construction of water and recreational areas which will include boating, swimming, camping, playground facilities, basketball courts, baseball and softball areas, etc. Not only must he have thorough understanding in this area, he will be exposed to management of such areas, maintenance, and serve as a supervisor for personnel under his control. The Park and Recreation Administration technician will be able to develop recreational programs and give instructions in all areas of recreation.

An integral part of the Parks and Recreation Administration program is the working and learning done at Riverside Park. A cooperative agreement between the Scioto County Commissioners and Shawnee State College will allow students to receive first hand experience in the development, operation, and maintenance of a major recreation complex now being developed along the Ohio River. The net effect of this agreement is that students will receive the equivalent of one full year of work experience while completing the two year technical curriculum in Parks & Recreation.

### **Job Opportunities**

Positions available in Park and Recreation Administration Technology:

**ASSISTANT PARK MANAGER** — Supervises and coordinates activities of workers in operation maintenance and repair of roadways, swimming pools, golf courses, play areas, and other park equipment and facilities.

**ADMINISTRATIVE ASSISTANT TO RECREATION DIRECTOR OR SUPERINTENDENT OF RECREATION** — Assists in plans, promotes, organizes, and administers public recreation service for entire communities. Studies local conditions and assists in the developing of immediate and long-range plans to meet recreational needs of all age groups.

**CAMP SUPERVISOR OR CAMP MANAGER** — Manages constructions of camping areas, selects location and supervises workers engaged in the installation of camping facilities. Inspects and corrects sanitary conditions of camp.

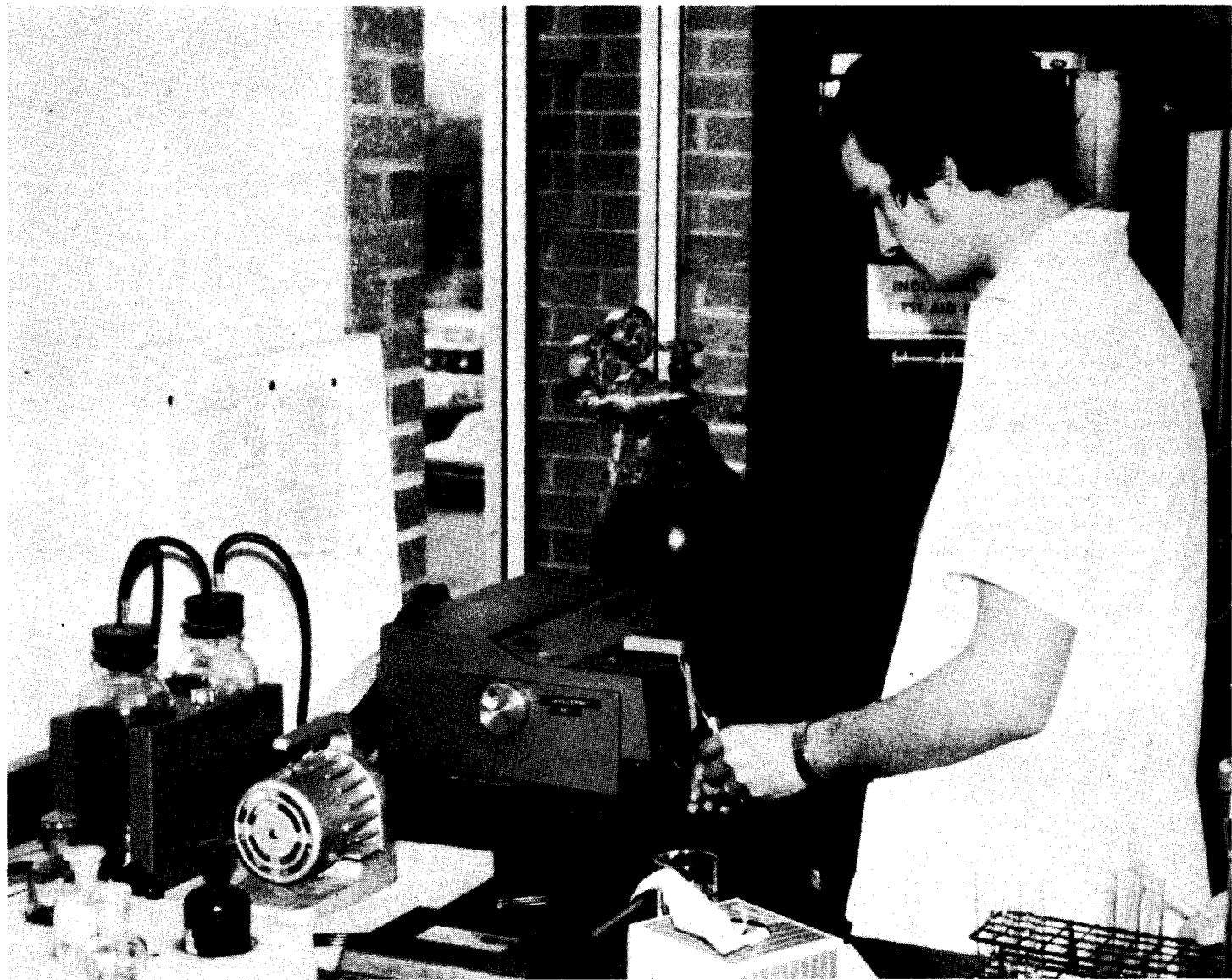
**RECREATION SUPERVISOR** — Supervises paid and volunteer recreation service personnel in public department, voluntary agency, or similar type facility, such as community centers or swimming pools.

Other positions are available to the graduate technician after several years of experience — positions as turf and grounds specialists, lab and service technician, and assistant in landscape architecture.

## PARKS AND RECREATION ADMINISTRATION CURRICULUM

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.	Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
<b>FIRST QUARTER</b>						<b>FOURTH QUARTER</b>					
Biol 0105	Field Biology	B	2	4	3	PRAAd 0211	Maintenance of Recreation Areas I	T	2	6	3
Biol 0215	General Ecology	B	2	3	3	PRAAd 0201	Outdoor Recreation	T	2	5	4
Engl 0111	Contemp. Writing Skills I	G	5	0	4	PRAAd 0202	Forest Management and Recreation	T	3	3	4
Math 0103	Business Mathematics	B	5	0	4	Soci 0101	Principles of Sociology	G	5	0	4
Psyc 0101	Principles of Psychology	G	5	0	4	Spch 0101	Speech I	G	3	0	3
			19	7	18				15	14	18
<b>SECOND QUARTER</b>						<b>FIFTH QUARTER</b>					
PRAAd 0101	Introduction to Recreation	T	2	2	3	PRAAd 0203	Fiscal Operations	T	3	3	4
PRAAd 102	Soil Management	T	3	3	4	PRAAd 0204	Recreation Park Layout & Design	T	1	6	3
PRAAd 0103	Hydrology	T	2	3	3	PRAAd 0207	Seminar	T	2	0	2
Engl 0112	Contemp. Writing Skills II	G	5	0	4	PRAAd 0208	Orientation to Employment	T	1	1	1
Math 0101	Basic Algebra	B	5	0	4	Econ 0101	Principles of Economics I	B	5	0	4
			17	8	18				12	10	14
<b>THIRD QUARTER</b>						<b>*SIXTH QUARTER</b>					
PRAAd 0104	Taxonomy of Vertebrates	T	3	3	4	PRAAd 0205	Water Recreation	T	3	3	4
PRAAd 0105	Water Pollution and Sanitation	T	2	4	3	PRAAd 0206	Park Protection	T	3	3	4
Engl 0115	Comp. & Mass Comm.	G	5	0	4	PRAAd 0209	Wildlife Management	T	3	2	3
Math 0130	College Algebra	B	5	0	4	PRAAd 0212	Maintenance of Recreation Areas II	T	2	6	3
CEng 0111	Surveying I	T	2	5	3	Engr 0101	First Aid & Safety	T	1	1	1
			17	12	18				12	15	15
<b>SUMMER QUARTER</b>											
PRAAd 0121	Parks & Recreation Internship	T	0	40	6						

\*Students may elect a different sequence of math with advisor approval. Much of the class and lab work for these quarters will be done as part of the field experience at Scioto County's Riverside Park.





## **INTER-INSTITUTIONAL ADVANCED STUDY (OHIO UNIVERSITY COURSES)**

Shawnee State has entered into an agreement with Ohio University for the purpose of offering junior, senior, and graduate courses on the Shawnee State campus. Under the agreement, students may take Ohio University courses on the Shawnee State campus during or following their course work at Shawnee State. For additional information about opportunities in Ohio University baccalaureate and graduate programs, a student should see his Shawnee State counselor or the Ohio University counselor, whose office is on the Shawnee State Campus.

### **FIVE DEGREES**

Through the combined efforts of Shawnee State Community College and Ohio University, students can complete five degree programs at the Shawnee State Campus. These programs are:

- 1 — Elementary Education
- 2 — General Business
- 3 — Nursing
- 4 — Criminal Justice
- 5 — General Studies

The first two years of these programs are offered by Shawnee State Community College. The last two years will be offered by Ohio University. (Courses are available as long as student registration is great enough to justify offering them.)

## **ASSOCIATE OF INDIVIDUALIZED STUDIES DEGREE**

The Associate of Individualized Studies Degree (AIS) at Shawnee State General and Technical College has been designed for the primary purpose of allowing students the option of formulating his/her own individualized program of study. The philosophical basis of the degree is predicated upon the assumption that the student may be unable to achieve his/her personal educational goals through one of the more formalized two-year degree structures offered at Shawnee State. This is especially true for those students interested in concentrating or combining a selected mixture of courses encompassing both academic as well as technical offerings in a manner which may not meet the degree requirements of Shawnee State's Associate of Arts, Associate of Applied Science, or Associate of Applied Business Degrees. With the awarding of the AIS, students thus have an opportunity to formulate their own program of study relevant to personal educational goals.

A demand exists among students for certification of two years of post secondary education. With approval, students may formulate a curriculum designed for transfer into a four-year program at a baccalaureate institution or formulate a program designed for immediate employment. There are those students who may also pursue the degree for general or personal enrichment.

### **Organizational Structure**

The AIS Degree will be organized and administered through the Office of the Dean of Student Services. The Dean of Student Services has at his disposal a staff of full-time counselors familiar with the academic and technical course options available at Shawnee State. The Student Services Staff also has access and strong working relationships with faculty in all academic and technical divisions and programs. Thus, because of its wide range of functions and familiarity with program offerings at Shawnee State, it was the feeling of the AIS Degree Committee that the Office of the Dean of Student Services might appropriately be responsible for curricular and procedural matters as well as AIS program evaluations.

### **Admissions Requirements**

The AIS Degree is available to any student admitted to Shawnee State whose educational objectives and interests cannot be met through one of the more structured degree programs. The student must make formal application by completing the AIS application. The application outlines the student's course of study and intended area of concentration. The student must also explain his reason for pursuing the degree. Two resource faculty or staff members must be consulted in preparation of the program, one of whom must be from the student's stated area of concentration. Both resource members must sign the application before submission for approval to the Dean of Student Services.

The student may submit his application at anytime; however, the student must complete 30 quarter hours of credit after admission into the AIS program. If an application is submitted within the first 10 class days of the quarter, the credits earned that quarter will be included in the 30 credits required after admission to the program.

Once the program receives approval, it should represent a firm contract between the student and faculty/staff involved. Some flexibility and minor alterations should be written into it, but if the major emphasis of the program is changed by the student, it must have written consent of the advisors and approval of the Dean of Student Services.

### **Graduation Requirements**

Upon completion of 90 quarter hours of credit with a cumulative grade point average of 2.00, the student may be awarded the AIS Degree. Thirty hours must be completed after admission to the program. The Office of the Dean of Student Services will handle individual graduation checks.

### **Counseling Procedure**

Given the individualistic nature of the degree, it is understood that extensive academic counseling is necessary for each student pursuing this particular program. Each admitted student will be consulting with two resource personnel, particularly the advisor representing the proposed area of concentration. Although the degree is awarded based upon a program of study designed by the student along with consultation and advice from faculty or administrative advisors, the student has ultimate responsibility for his/her program. Each student will be encouraged to discuss his/

her plans and program with Student Services Staff members. Also, students will be encouraged to discuss their program with prospective employers or other relevant nonacademic personnel.

Since the AIS Degree is an individually designed program geared to meet specific educational objectives, it would not be recommended to those students whose interests and/or goals can be better met through one of the more conventional degree offerings at Shawnee State.

### **Curricular Structure**

The AIS program is not expected to have any particular impact on the curricular offerings at Shawnee State as it does not require the development of new courses. The program does, however, allow the student greater flexibility in designing a program that would meet his/her educational needs. The student will be able to design both specialized and interdisciplinary programs with no restrictions on the number of academic or technical courses included in the student's planned program. The only limitations on the amount of credit granted for Advanced Placement, College Level Examination Programs, Course Credit by Examination, Independent Study, Correspondence Study, etc., are those normally applied to the Associate Degree Programs at Shawnee State and the agreement made in the original AIS contract (application).

Grading policies applicable to all other programs at Shawnee State are also applicable to the AIS Degree. To the extent that policies and procedures are developed for examining accomplishments and competencies of life or other creditable experience for all degree students at Shawnee State, they will also be available to AIS Degree students.

Students may modify their programs so long as the major emphasis and direction of the program is not changed. If the major emphasis of the program is altered, it must have the written consent of the advisors. Subject to all requirements of the program to which they transfer, students may transfer to any other degree program at Shawnee State when they choose.

### **Interinstitutional Cooperation**

Relative to interinstitutional cooperation, the AIS Degree can be awarded to students who transfer credits from other institutions. Shawnee State General and Technical College adheres to state articulation guidelines recently adopted by the Ohio Board of Regents.

# GRADUATE REALTORS INSTITUTE DESIGNATION

## **Purpose**

A. To fill the need for a more comprehensive and better instruction program in all facets of the real estate profession through courses of instruction in institutions of higher learning.

B. To provide licensed real estate brokers and salesmen an opportunity for enhancement of professional competence and financial success through participation in the Graduate, Realtors' Institute (GRI).

C. To enhance the community status of the real estate profession through a formal education program.

D. To provide individuals not in the profession an opportunity to become knowledgeable about particular facets of the real estate industry.

E. To recognize those who have successfully qualified for the GRI designation by awarding them a certificate and pin that identifies them as a Graduate, Realtors' Institute (GRI).

## **Enrollment**

Enrollment in the Real Estate program is not limited to candidates for the GRI certificate.

Individuals seeking information about specific facets of the real estate industry may enroll in any course; however, program curriculum is oriented to the educational needs of the professional.

## **GRI Certificate Program**

The GRI designation is available to those who hold membership in the Ohio Association of Real Estate Boards and have completed the program requirements.

A certificate in recognition of achievement and a GRI lapel pin will be awarded to those individuals successfully completing the program requirements upon application to the Ohio Association of Real Estate Boards, payment of required fees and successful completion of a comprehensive examination.

Please refer to page 136 for the Real Estate Courses and their course description offered at Shawnee State.

# DEVELOPMENTAL COURSES

The developmental program is intended for students who do not have the proper educational background to enter their chosen technologies. Offerings include mathematics, biology, chemistry, study techniques and physics. Enrollment is made by compliance with regular admissions procedures. Developmental courses are usually offered during each quarter.

## 0091 — Fundamental Math (4)

A brief review of the fundamentals used in arithmetic including addition, subtraction, multiplication, and division as applied to integers and rational numbers. An introduction to the elementary concepts of basic algebra with emphasis on manipulations of algebra expressions, solutions to all types of equations, graphs and formula rearrangements.

## 0092 — Fundamental Chemistry (4)

This course is designed for those students with an inadequate background in chemistry. It should be taken by students planning to enter one of the allied health fields or plastics engineering that have not had high school chemistry. Topics and material presented is intended to increase student's familiarity with terms and chemical process.

## 0093 — Fundamental Biology (4)

This course is designed for those students with an inadequate background in biological science. The course should be taken by those students planning to enter one of the allied health fields that have not had biology on the high school level. Topics and material presented is intended to increase the student's familiarity with terms and chemical process.

## 0094 — Fundamental Physics (4)

This course is designed for those students with an inadequate background in math or physics. This course should be taken by those students before taking Physics 114. Several physics topics and the mathematical methods to study these topics are covered. Topics include metric system, unit conversion, and vector analysis of forces and motion. An introduction to laboratory procedures and report writing is included.

## 0095 — Study Techniques (4)

This is a freshman reading and study skills course. The purposes of the course are (1) to aid the student in building effective habits for study and learning, (2) to allow the student to diagnose his own weaknesses and work to correct them, and (3) to alert the student to some techniques of successful study.

The following rationing courses have been developed as special interest courses for students attending Shawnee State Community College. While credit may be awarded by Shawnee State for each of the listed courses, it is *important* to note that students may experience difficulty in transferring credit earned in *Student Service Courses* to another college or university. This difficulty arises primarily because of the nature and the type of material covered in each of the various courses.

The primary purpose of the Student Service Courses is to aid students in the development of skills and knowledge applicable to their educational pursuits while attending Shawnee State Community College.

## SSCr 0002 — New Approaches to Learning (1)

Various approaches to learning are explored. Mnemonic and associative techniques are investigated. (2 hrs. lec. per week for 5 wks.)

## SSCr 0004 — Reading Development (1)

Emphasis is placed on improving reading speed and comprehension. Reading problems are identified and attacked: single word fixation, involuntary regression, subvocalization, and inability to concentrate. (2 hr. lec. per wk. for 5 wks.)

## SSCr 0006 — Vocabulary Development (1)

Emphasis is placed upon development of skills necessary for building vocabulary. (2 hrs. lec. per wk. for 5 wks.)

## SSCr 0008 — Use of the Slide Rule (1)

Basic fundamentals of the use and application of the slide rule. (2 hrs. lec. per wk. for 5 wks.)

## SSCr 0010 — College Orientation (1)

A basic introduction to college. Various areas are explored including: role of an advisor, student services, financial aid, and extracurricular activities. (2 hrs. lec. per wk. for 5 wks.)

Please note that developmental courses do not apply toward an associate degree.

# COURSE DESCRIPTIONS

## ACCOUNTING

### **Acct 0100 — Secretarial Accounting (4)** **FOR CAREER ORIENTED STUDENTS ONLY**

An introduction to fundamental accounting concepts and the procedures. The accounting cycle: nature of accounts and techniques of recording, classifying, summarizing and analysing basic financial data.

### **Acct 0101 — Accounting I (4)**

Introduction to fundamental accounting concepts and the procedures. The accounting cycle: nature of accounts and techniques of recording, classifying, summarizing and analyzing basic financial data. Application of fundamental accounting techniques to partnerships and corporations. Accounting for the formation, operation, and dissolution of business enterprises.

### **Acct 0102 — Accounting II (4)**

Prereq. Acct 0101.

Application of fundamental accounting techniques for cash, long term investments, notes and accounts, inventory methods, plant and equipment, and liabilities. Introduction to manufacturing operations, cost methods and management's need of cost data.

### **Acct 0103 — Accounting III (4)**

Prereq. Acct 0102.

Reporting and analysis of financial data. Financial statement introduction, analysis and interpretation to meet the needs of modern management. Introduction to accounting techniques applicable to parent and subsidiary companies and departmental and branch operations. Budgeting as an aid to management, and the importance of income tax considerations in financial decisions.

### **Acct 0104 — Tax Accounting (4)**

Current income tax law and regulations related to business and individual income tax reporting. Practice in preparation of tax returns of businesses and individuals.

### **Acct 0205 — Principles of Finance (3)**

Forms of business organization; corporate securities, financing through securities, sources and management of working capital, administration of income, expansion and combination, re-organization receivership, and dissolution.

### **Acct 0211 — Intermediate Accounting I (4)**

Prereq. Acct 0103.

A more advanced treatment of accounting theory; determination of income realization and cost expiration. Primary emphasis is on asset accounts in order listed on the balance sheet.

### **Acct 0212 — Intermediate Accounting II (4)**

Prereq. Acct 0211.

Continuation of Intermediate Accounting I with emphasis on the balance sheet sections dealing with investments, fixed assets and liabilities.

### **Acct 0213 — Intermediate Accounting III (4)**

Prereq. Acct 0212.

Continuation of Intermediate Accounting II with a detailed study of the owner's equity section of the balance sheet and the financial statements presentation and analysis.

### **Acct 0221 — Cost Accounting I (4)**

Prereq. Acct 0103.

Introduction to cost accounting systems and methods. Cost concepts, classifications, and measurement techniques in relation to their importance in determination, planning, and control. Job order and process cost accounting methods.

### **Acct 0222 — Cost Accounting II (4)**

Prereq. Acct 0221.

Estimating, planning, and controlling the costs of processes and projects. Standard cost accounting procedures and the analysis of variances. Cost and profit responsibility reporting to management. Uses of cost and profit data in project selection, product pricing, and other functions of management.

### **Acct 0231 — Governmental Accounting (4)**

Governmental Accounting is a basic introduction to the accumulation and use of accounting information in non-profit organizations. General principles applying to budgets and funds are examined rather than specific application. The course should be especially useful for non-accounting (and accounting) students who will be employed in governmental units where budgeting and accounting are required.

**Acct 0241 — Auditing (3)**

Prereq. Acct 0212 and 0221.

Independent audits, professional ethics, legal liability, internal control, auditing standards, work sheet applications and procedures. Concern will be given for audit evidence, the auditor's approach and techniques, summary reports, statistical sampling, and role of advisory services to management.

**Acct 0242 — Business Communications (3)**

Principles and techniques of effective letter writing; letter mechanics; writing of personal business letters including application letters; methods of writing business reports and letters — internal and external reports as means of communication.

**Acct 0251 — Systems Accounting (3)**

Developing, organizing, and using accounting data, analyzing and improving accounting systems, systems reviews, flow process charting, structural flow charting, internal check, internal control, forms and paper flow analysis.

**ANTHROPOLOGY****Anth 0201 — Introduction to Anthropology (5)**

Origin of Man. Survey of evidence and interpretation structures of human biological evolution. Emphasis on fossil record, comparative primate behavior studies, and selected archaeological cultural sequences.

**Anth 0250 — Principals of Cultural Anthropology (4)**

Prereq. 0201

Varieties and range of human behavior as revealed through comparative study of cultures in all parts of the world. Included consideration of kinship, ideology, politics, economics, and ecological adaptations.

**ART****Arts 0100 — Fundamentals of Visual Arts (4)**

No Prereq.

A highly structured course that contains an introductory format for the art department as well as the basic vocabulary necessary for participation in any aspect of the visual arts. Required of all freshmen with an art concentration.

**Arts 0101 — Studio Foundations I (5)**

No Prereq.

This course is required of all freshmen with an art concentration. The focus of the course will be on the basics of drawing and two-dimensional design.

**Arts 0102 Studio Foundations II (5)**

No Prereq.

This course is required of all freshmen with an art concentration. The focus of this course will be color and color theory.

**Arts 0103 — Studio Foundations III (5)**

No Prereq.

This course is required of all freshmen with an art concentration. The focus of this course will be three-dimensional design, introduction of materials and techniques of sculpture.

**Arts 0201 — Art for the Elementary School I (3)**

This course will be concerned with presenting art methods and ideas specifically geared to those teachers in elementary education.

**Arts 0202 — Art for the Elementary School II (3)**

Continuation of modern art approaches in the elementary school.

**Arts 0210 — Introduction to Photography I (4)**

Introduction to Art and techniques of Photography.

**Arts 0211 — Introduction to Photography II (4)**

Prereq. Arts 0210

Continuation of Arts 0210

**Arts 0212 — Introduction to Photography III (4)**

Prereq. Arts 0211

Continuation of Arts 0211

**Arts 0215 — Drawing (3)**

Prereq. Art 101, 102.

This course will start where the studio foundation series leaves off and explore the various drawing mediums in more detail.

**Arts 0221 — Painting I (4)**

Prereq: Art 101, 102.

The main concern of this course will be concentrated on the use of oils and synthetic painting media.

**Arts 0222 — Painting II (4)**

Prereq. Art 202.

A continuation and expansion of ideas and conceptualizations gained through Art 202.

**Arts 0223 — Painting III (4)**

Prereq. Art 203.

A further expansion of ideas and conceptualization combined with technical insights gained through the previous two courses.

**Arts 0231 — Ceramics I (4)**

The focus of this course will be clay as the craftsman conceptualizes it. Work in all types of handbuilt pottery, raku pottery, clays and glazes.

**Arts 0232 — Ceramics II (4)**

Prereq. Art 231.

This course will be a continuation of Art 231 but introducing the potter's wheel as a means of utilizing clay. Glaze formulation and usage will be covered briefly.

**Arts 0233 — Ceramics III (4)**

Prereq. Art 232.

This course will be a more in-depth continuation of the previous ceramics courses with more stress being placed on the craftsmanlike development and conceptualization of clay as a medium.

**Arts 0240 — Sculpture (4)**

Prereq. Art 101, 102, 103.

Students will be expected to work in at least 2 separate mediums coming to a more thorough understanding of those mediums through their use.

**Arts 0245 — Printmaking I (4)**

Prereq. Art 101, 102, 103.

An introduction to basic intaglio techniques. Emphasis will be on mastering techniques so that they can be used to develop personal imagery.

**Arts 0246 — Printmaking II (4)**

Prereq. Arts 245.

An introduction to lithographic technique and printing. Emphasis is placed on mastering techniques so that they can be used to further personal aesthetic goals.

**Arts 0247 — Printmaking III (4)**

Prereq. Arts 246.

An introduction to the basic silk screen techniques. Emphasis will be on mastering techniques so they may be used to develop personal imagery.

**Arts 0248 — Relief Printing (4)**

Prereq. Arts 0247

An introductory course exploring the range of graphic possibilities in the relief printing process.

**Arts 0251 — Graphic Design - Typography (4)**

Prereq. 101, 102, 103.

Typography as a designer's tool and as communication. Emphasis upon design of symbols and typefaces.

**Arts 0252 — Graphic Design - Illustration (4)**

Prereq. Art 101, 102, 103.

Pictorial imagery as a design tool. Problems in product, poster, magazine and book illustration.

**Arts 0253 — Graphic Design - Three-Dimensional (4)**

Prereq. Art 101, 102, 103.

Examination of three-dimensional design problem with special attention to environments, packaging and display.

**Arts 0261 — Art History I (4)**

The Art History courses are designed to acquaint the student with a knowledge of the contexts of work of art and the continual discarding and rediscovery of values in that art. Course I covers ancient through 14th century.

**Arts 0262 — Art History II (4)**

This course maintains the same general purpose and objective as Art 261 (see above) but covers the 15th through the 19th century.

**Arts 0263 — Art History III (4)**

This course maintains the same general purpose and objective as Art 261 and 262 but covers the 20th century.

**Arts 0271 — Life Drawing I (4)**

Prereq. Art 101.

Drawing the human figure in various media.

**Arts 0272 — Life Drawing II (4)**

Prereq. Art 271.

A continuation of Art 271.

**Arts 0273 — Life Drawing III (4)**

Prereq. Art 272.

A continuation of Art 272.

**Arts 0280A — Topics in Art (2)****Arts 0280B — Topics in Art (3)**

Study of the various art topics otherwise not available to students.

**Arts 0290 — Weaving I (4)**

Prereq. Arts 101, 102, 103.

Introduction to weaving techniques through the construction and use of a simple loom and the use of the table or floor loom.

**Arts 0291 — Weaving II (4)**

Prereq. Arts 290.

Further examination and use of the 4-harness loom (2 credits). Off-loom fibre techniques and the design, construction and use of hand looms (2-4 credits).



#### **Arts 0292 — Fabric Design (4)**

Prereq. Arts 0291

Exploration of methods of printing and dyeing fabric as well as other methods of design application with cloth. Students will be encouraged to then use the fabric to make functional and nonfunctional objects.

### **AUTOMOTIVE**

#### **AuDI 0101 — Fuels and Lubricants (3)**

A study of the chemical structure of petroleum based fuels and lubricants and how they meet the operational demands of diesel and gasoline engines and power transmission components. Failures caused by fuel and lubricant breakdown are given special attention along with exhaust emission problems.

#### **AuDI 0102 — Basic Electricity (4)**

A basic electricity course designed as a prerequisite for the automotive program electrical courses. The course content is based on electrical fundamentals and practical applications. Instructional units including electricity and magnetism, storage batteries, ignition systems, charging system, starting systems and instrumentation.

#### **AuDI 0111 — Electrical and Fuel Systems I (5)**

Function, construction, operation, troubleshooting, and servicing of the components of the charging system, cranking system, ignition system, and fuel system are studied. Students are expected to participate in the disassembly and reassembly of components, and perform the required bench tests.

#### **AuDI 0121 — Principles of Internal Combustion Engines (6)**

Introduction to measurements and tolerances, cooling systems, lubrication, repair and overhaul. Rotary engine basics included. Basic hand tools required.

#### **AuDI 0112 — Electrical and Fuel Systems II (5)**

This course includes instruction on automotive charging systems, carburetion, and transistor controlled systems. The function, construction, operation and troubleshooting procedures are studied and servicing requirements are stressed. Students participate in the disassembly and reassembly of components and perform the required bench tests.

#### **Auto 0201 — Power Drive Train (5)**

Theory of operation of manual transmission, automatic transmissions, differentials and air conditioning. Lab work, assemble differential, tune up automatic transmission (overhaul optional). Basic hand tools required.

#### **Auto 0211 — Testing and Repair (6)**

Oscilloscope theory and scope engine diagnosis. Distributor testing machine operation. Engine troubleshooting theory and practice. Basic hand tools required.

#### **Auto 0212 — Chassis (6)**

Theory of operation of steering systems, suspension systems. Wheel balancing, wheel alignment. Brake theory and repair procedures. Basic hand tools required.

#### **AuDI 0201 — Failure Analysis (4)**

A study of a systematic approach to analyzing component structural and product failures. This includes preparation of warranty and field reports, and case studies are used to acquaint the student with types of problems he may encounter.

#### **Auto 0221 — Service Area (7)**

A service area program designed to provide the student with field-type service work in a controlled instructional setting. The student is given the opportunity to make practical application of the technical material presented to him in previous courses. Special emphasis is placed on the vehicle service needs which are most frequently requested in modern commercial service centers.

#### **Auto 0222 — Laboratory Practices (7)**

Actual experience in the laboratory with respect to diagnosis and repair, use of manuals and records, customer relations, safety, communications, supervision and delegation of work. Basic hand tools required.

### **BANKING AND FINANCE**

#### **BaFT 0101 — Principles of Banking and Finance I (3)**

Monetary standards, commercial and central banking. Federal Reserve functions and statements, monetary and income theory, problems of monetary and fiscal stabilization, international payments, and the International Bank and Monetary Fund.

#### **BaFT 0102 — Principles of Banking and Finance II (3)**

A study of banking operations and management. Course is designed as an introduction to the administration and operation of commercial banks and saving and loan banks. Management of banking funds with liquidity. Investment characteristics of securities. Analysis of objectives, risks, yields, and outlets for individual and institutional funds.

#### **BaFT 0104 — Insurance I (2)**

An introductory course covering principles and types of insurance, types of companies, rating classification, claims disposition, agents and agencies, and governmental regulations.

#### **BaFT 0105 — Installment Credit (3)**

Procedures, forms, government regulations, delinquency and collections, interest rates, background of installment credit.

**BaFT 0106 — Principles of Bank Operations (3)**

Basic course stating a history of banking, developing of Federal Reserve System; three main duties, safekeeping, transfer of funds, lending. Examination and governmental examination. Field work and problems concerning the operation of commercial bank and savings and loan institutions. On the job visitation to various banks.

**BaFT 0111 — Banking and Finance Internship (6)**

Eleven weeks of supervised work experience with supervisory visits by the instructor. Weekly seminars for critique of experience. Weekly evaluation reports.

**BaFT 0112 — Special Problems in Banking & Finance (2)**

Weekly evaluation report.

**BaFT 0201 — Residential Appraising (3)**

A course that covers the basic appraisal principles and practices with specific reference to the operations of savings associations. The appraisal terminology, the study of national, regional, local and neighborhood trends, the study of site, the methods of arriving at value estimates and the processes involved in studying the market are just some of the topics covered. Field work in the area of appraising.

**BaFT 0202 — Home Mortgage Lending (4)**

A course covering the basic principles of home mortgage lending. A study of the procedures use from the opening to closing of mortgages. A complete study of all necessary forms, rules, and regulations the buyer should know in obtaining a loan.

**BaFT 0203 — Valuation of Real Estate (3)**

This course includes a review of basic residential appraising, the development and operation of an appraising department, building cost analysis, market analysis, land development appraising and some of the more specialized appraising problems. Apartment units and buildings, commercial properties, special purpose properties, office buildings, shopping centers, motels and hotels are all studied in this course.

**BaFT 0204 — Investments I (4)**

A course consisting of assignments dealing with the various investment alternatives, as well as general and specific information that must be considered before thought is directed toward particular industries and companies. Also included are the tools and sources that are needed for the analysis necessary before making wise investment decisions.

**BaFT 0206 — Investments II (4)**

Part II of this course is more analytical and involves the actual art of investing. It proceeds from an analysis of the needs and the determination of objectives to the careful analysis and selection of industries and securities appropriate for realizing those objectives.

**BaFT 0207 — Mortgage Loan Servicing (3)**

Servicing systems, regulations, reports, records, accounting procedures, loan participations and the sale of loans are just a few of the topics covered in this course. It can be a most helpful course, specifically to those involved in the lending activities of the association, and generally to all those working for a savings association.

**BaFT 0208 — Supervision of Personnel Administration (3)**

Training of all new employees, and supervision of the physical facilities.

**BaFT 0209 — Seminar in Consumer Finance (1)**

Problem to be selected in consultation with an assigned instructor.

**BIOLOGICAL SCIENCES****Biol 0105 — Field Biology (3)**

An introduction to basic life processes including the structure and function of plants and animals. Laboratory work emphasis is on the identification and natural history of local flora and fauna, with special attention to trees and shrubs.

**Biol 0107 — Human Ecology (4)**

Effect of man on ecosystem, including pollution and population relationships. Emphasis on drugs, their abuse, their pharmacology and recent research findings on effects of drugs on humans. Reproduction physiology, contraceptive technology and research, biological aspects of abortion and venereal disease. 3 lec. 2 labs.

**Biol 0111 — Principles of Biology (5)**

Introduction to principles and concepts of life; emphasis on inter-relationships of structural, functional, reproductive, evolutionary and ecological principles related to cells and organisms. 4 lec. 2 labs.

**Biol 0112 — Plant Biology (5)**

Prereq. Biol. 111.

Morphology and anatomy of seed plants as related to function. Survey of plant kingdom with emphasis on evolutionary relationships and life histories of selected plant groups. 4 lec. 2 labs.

**Biol 0113 — Animal Biology (5)**

Prereq. Biol. 111.

Principles of development, anatomy, physiology, behavior and laboratory survey of major phyla. Designed primarily for majors in the sciences and preprofessional students. 4 lec. 3 labs.

**Biol 0121 — Biology, Plants and Man (4)**

Prereq. Biol. 111 suggested.

Interrelationships of plants and man from both historical and modern points of view, origins of agriculture and civilization, tropical and temperate food plants, medicinal plants, drug plants, destruction of environment and its ultimate effect on food plants. 4 lec.

**Biol 0200 — Human Anatomy and Physiology (4)**

A general survey of the structure and function of the human body. Not applicable for students requiring biology 0290 and 0291. 3 lec., 3 lab.

**Biol 0210 — Trees and Shrubs (5)**

Prereq. Biol 112 (fall quarter).

Collection, identification, nomenclature, classification, ecological relationship of native, introduced and cultivated woody plants. 3 lec. 4 labs. 2 Saturday field trips.

**Biol 0211 — Spring Flora (5)**

Prereq. Biol 112.

Identification, nomenclature, classification of spring flowering plants. Origin and evolution of flora of Ohio. 3 lec. 4 labs.

**Biol 0215 — Ecology (3)**

A study of the interrelationships among the many elements in an environment. A historical approach looks at the concept of evolution, man's impact upon the environment, and common ecological problems faced by parks. Labs introduce common and basic ecological techniques. 2 lec. 3 lab.

**Biol 0225 — General Genetics (5)**

Prereq. Biol 111.

Principles and concepts of genetics as revealed by classical and modern investigation. 5 lec

**Biol 0235A — Microbiology 4 hrs. cr. (3 Lec. 3 Lab.)**

**Biol 0235B — Microbiology 5 hrs. cr. (4 Lec. 3 Lab.)**

Prereq. Biol 111 or permission.

A survey of representative types of micro-organisms. Emphasis is placed on cellular structure and physiology, nutritional and environmental requirements and methods of reproduction. Introduction to the role of pathogenic organisms in carrying diseases and infections. Principles of immunity and resistance to disease. Laboratory includes methods of sterilization, culture, staining and identification. 3/4 lec. 4 labs.

**Biol 0290A — Principles of Anatomy and Physiology I 4 hrs. cr. (3 Lec. 3 Lab.)**

**Biol 0290B — Principles of Anatomy and Physiology I 5 hrs. cr. (4 Lec. 4 Lab.)**

Prereq. Biol 111 or permission.

Morphological and physiological aspects of cells and tissues and of the dermal, neurosensory, skeletal, and muscular systems of the human body. 3/4 lec. 3 lab.

**Biol 0291A — Principles of Anatomy and Physiology II 4 hrs. cr. (3 Lec. 3 Lab.)**

**Biol 0291B — Principles of Anatomy and Physiology II 5 hrs. cr. (4 Lec. 3 Lab.)**

Prereq. Biol 290.

Continuation of Biol 290. Morphological and physiological aspects of the circulatory, respiratory, digestive, urinary, reproductive, and endocrine systems. 3/4 lec. 3 lab.

**Biol 0299A — Special Topics in Biology (2)**

**Biol 0299B — Special Topics in Biology (3)**

Prereq. Biol 111 or permission of instructor.

Individual or small-group study, under supervision of instructor, of topics not otherwise available to students.

## BUSINESS LAW

**BusL 0250 — Business Law I (4)**

Introduction to major points of business law, based principally on Uniform Commercial Code; consideration of Uniform Acts relating to specific legal areas. Contracts, agency and employment, negotiable instruments, personal property, and bailments.

**BusL 0260 — Business Law II (4)**

A second quarter of the study of Business Law in which the subject matter covered includes partnerships, corporations, real property and leases, nature of insurance, mortgages, nature of bankruptcy, trusts and estates, and basic business regulations by government.

## CHEMISTRY

**Chem 0121 — Introduction to Inorganic Chemistry (4)**

An introductory course in fundamental chemical concepts and laboratory techniques. Atomic structure, periodic classification of elements, chemical equations, chemical calculations, solutions, acids and bases, oxidation, reduction, reactions, and the gas laws. 3 lec. 3 lab.

Recommended for students in allied health technologies and university parallel programs requiring general chemistry or physical science elective(s).

**Chem 0122 — Introduction to Organic Chemistry (4)**

Prereq. Chem 0121

A course in fundamental organic chemistry. The study of carbon compounds; aliphatic hydrocarbons, alcohols, ethers, aldehydes, ketones, organic acids, esters, amines, and aromatic compounds. 3 lec. 3 labs.

**Chem 0123 — Bio-Chemistry (4)**

Prereq. 0122

This course is an introduction to physiological chemistry. Organic chemistry and metabolism of carbohydrates, lipids, and proteins is discussed with emphasis on metabolic pathways, enzymes, hormonal control of metabolism, metabolic energy for muscular work, composition of body fluids, and metabolic relationships among major organs. Pathological conditions related to metabolism are discussed. Recommended for students in technical programs in allied health fields (except nursing) (3 hrs. lec. - 3 hrs. lab.)

**Chem 0141 — Chemistry I: General (4)**

Prereq. H.S. algebra and H.S. chemistry recommended

Designed to provide an introduction to chemistry through the study of fundamental chemical concepts, stoichiometry, gas state, atomic theory, periodic classification, atomic structure, and nuclear chemistry. 3 lec. 3 lab.

Recommended for students in plastics technology, chemical technology, and transfer programs requiring three quarters of freshman chemistry (medicine, optometry, microbiology, dentistry, forestry, pharmacy, veterinary, engineering, medical technology, botany, zoology, physics, science education, etc.).

**Chem 0142 — Chemistry II: Chemical Energetics (4)**

Prereq. Chem 141

Designed as an introduction to chemical bonding, coordination chemistry, condensed states, chemical thermodynamics, chemical kinetics and chemical equilibrium. 3 lec. 3 lab.

**Chem 0143 — Chemistry III Solution Chemistry (4)**

Prereq. Chem 142

Designed as an introduction to ionic equilibrium, and principles of qualitative analysis and water analysis. Emphasis placed upon analytical procedures and problem solving. 3 lec. 3 lab.

**Chem 0202 — Process Instrumentation (4)**

Prereq. Math 131, Physics 202, PEng 0206

Introduction to measurement and control systems for temperature, pressure, and fluid flow. Dynamic response characteristics of instruments and calibration methods.

**Chem. 0205 — Organic Chemistry (4)**

Prereq Chem 0143.

A course for students wishing to acquire a sound knowledge of classical and modern organic chemistry. 3 lec. 3 labs.

**Chem 0206 — Organic Chemistry (4)**

Prereq. Chem 0205.

Continuation of 205. See 205 course description. 3 lec. 3 labs.

**Chem 0207 — Organic Chemistry (4)**

Prereq. Chem 0206.

Continuation of 205-206. See 205 description. 3 lec. 3 labs.

**Chem 0211 — Unit Operations I (4)**

Prereq. Math 131 and PEng 0206.

Fundamentals of distillation, filtration, drying extraction, mixing, absorption, etc. Related laboratory.

**Chem 0212 — Unit Operations II (4)**

Prereq. Chem. 0211.

Continuation of Unit Operations I. Fundamentals of heat transfer, mass transfer, fluid flow, and related laboratory experiences.

**Chem 0224 — Quantitative Analysis (5)**

Prereq. Chem 0143.

A study of ionic equilibrium in relationship to gravimetric and volumetric techniques of quantitative analysis. Emphasis placed upon analytical procedures and problem solving. 3 lec. 6 lab.

**Chem 0225 — Instrumental Methods of Analysis (5)**

Prereq. Chem 0224.

An introduction to various types of instrumentation and their application to chemical problems. Topics included electrical, spectral, nuclear, and chromatographic methods of analysis. 3 lec. 6 lab.

## CIVIL ENGINEERING

**CEng 0101 — Introduction to Surveying (3)**

Surveying and its applications; the surveying method. Introductory topics in plane geometry, trigonometry, and computations to prepare the student for plane surveying. Introductory discussions and lectures on surveying equipment, nomenclature, general field procedures, cleaning and care of instruments, and to give the student an overview of the surveying profession.

**CEng 0111 — Surveying I (3)**

Prereq. CEng 0101 or advisor approval.

Setting up the transit; use of the transit, turning angles, prolongation of a straight line; setting up the level; running circuits of levels; horizontal measurement; tape corrections; keeping field notes.

**CEng 0112 — Surveying II (3)**

Prereq. CEng 0111.

Leveling procedures; establishing line and grade for construction; topographic surveying, traverse and traverse computations; the elements of the use of aerial photographs.

**CEng 0113 — Route Surveying I (3)**

Prereq. CEng 0112.

Transportation systems; route surveys by ground and aerial methods; circular curves; compound curves; parabolic curves.

**CEng 0114 — Route Surveying II (3)**

Prereq. CEng 0113.

Transition spiral, spiraled compound curves, elements of highway safety and design, drainage surveys; field application of route surveys.

**CEng 0115 — Surveying for Civil Engineers (3)**

Prereq. CEng 0114.

Advanced surveying methods. Triangulation systems. Details of new surveying procedures; aerial surveys, the telerometer, the geodimeter, precision survey instruments and methods.

**CEng 0201 — Concrete Design (4)**

The theory of modern concretes. Practices of making, placing, and curing Portland cement and asphaltic concretes. Design of batches, testing of compounds, and testing of specimens of concrete.

**CEng 0202 — Civil Engineering Law (2)**

A study of those phases of law directly associated with the Civil Engineering field. Contracts, specifications, construction documents, responsibility, negligence.

**CEng 0203 — Statics (3)**

Prereq. Math 0131.

Statics is the study of external forces acting on rigid bodies in equilibrium. The study includes types of forces, reactions, vectors, moments. The laws governing the actions and resolutions of these forces.

**CEng 0204 — Construction Supervision (3)**

Prereq. CEng 0211 or advisor approval.

A study of construction bidding, planning, scheduling, and controlling. The critical path method (CPM) is used.

**CEng 0205 — Hydraulics for Civil Engineering (2)**

Prereq. Math 0131 and Phys 0201.

This course is oriented toward water supply and distribution. Topics include Pascal's Law, Bernoulli's Theorem, flow of water in pipes, distribution systems, and pumps.

**CEng 0206 — Engineering Problems and Field Inspection (1)**

Actual field visitations, office computations; use of office machines, reducing field notes, report forms, state and federal interpretation of highway code.

**CEng 0207 — Strength of Materials I (3)**

Prereq. CEng 0203 and CEng 0205.

The study of tension, compression and shear stress, deformation, engineering materials, torsion, centroids and moments of inertia of areas.

**CEng 0208 — Soil Materials and Testing (3)**

Prereq. CEng 0201 or advisor approval.

Engineering tests of soils for design and control to meet ASTM Standards. Testing for moisture content, standard compaction, proctor penetration, sieve analysis, hydrometer analysis, and unconfined compression.

**CEng 0211 — Highway Construction I (4)**

Highway economics and finance, highway planning, geometric design of highways, drainage, and drainage structure. Traffic survey, driver and vehicle characteristics. Traffic routing, safety.

**CEng 0212 — Highway Construction II (4)**

Prereq. CEng 0211.

Advanced. Earthwork operations and equipment; thickness design of flexible pavements and bases; soil aggregate roads and stabilization; bituminous surface treatments; highway maintenance.

**COMPARATIVE ARTS****ComA 0100 — Culture of the Arts (2)**

A general survey of the Arts.

**ComA 0101 — Survey of the Arts (3)**

Team taught. Analysis of form, media, and content of major arts stressing interrelationships of architecture, dramatic art, music, literature and painting through recognition of common art factors. Use of tapes, slides, and recordings. Three quarter sequence.

**ComA 0102 — Survey of the Arts (3)**

Team taught. Analysis of form, media, and content of major arts stressing interrelationships of architecture, dramatic art, music, literature and painting through recognition of common art factors. Use of tapes, slides, and recordings.

**ComA 0103 — Survey of the Arts (3)**

Team taught. Analysis of form, media, and content of major arts stressing interrelationships of architecture, dramatic art, music, literature and painting through recognition of common art factors. Use of tapes, slides, and recordings.

## **CORRECTIONS**

### **CorT 0101 — Introduction to Corrections (3)**

This course will allow a person an opportunity to study the history of corrections, concepts of treatment versus punitive measures, and to have an understanding of the objectives of corrections.

### **CorT 0102 — Criminology (4)**

This course will allow the student an opportunity to have a comprehensive understanding of criminal activity in America and how various controls affect the criminal behavior of our society.

### **CorT 0103 — Juvenile Delinquency (3)**

This course will cover an in-depth study of juvenile delinquency, prevention of delinquency, interpretation of the role of society, and the administration of juvenile justice.

### **CorT 0104 — Criminal Law (3)**

A study of the principles of criminal law with emphasis upon their application in Ohio criminal proceedings, from offense report through arrest and trial.

### **CorT 0105 — Probation and Parole (4)**

This course will provide an opportunity for a student to study the why, how, and when of probation and parole. The course will provide an understanding of what one could look forward to in the future in relation to probation and parole.

### **CorT 0106 — Constitutional Law (3)**

A general overview of the U.S. and Ohio constitutions with special emphasis upon application of current interpretation appropriate to the criminal justice system and corrections operations.

### **CorT 0107 — Philosophy of Corrections (2)**

A study of correctional philosophy is intended to aid the correction officer in understanding the organization of which he is a part, and to enhance consistency of job performance.

### **CorT 0121 — Correctional Field Experience (1)**

Minimum of three hours of assigned field experience per week in police department, municipal courts, correctional institutions and juvenile centers. A research paper is required for each correctional internship.

### **CorT 0122 — Correctional Field Experience (1)**

Minimum of three hours of assigned field experience per week in police department, municipal courts, correctional institutions and juvenile centers. A research paper is required for each correctional internship.

### **CorT 0123 — Correctional Field Experience (1)**

Minimum of three hours of assigned field experience per week in police department, municipal courts, correctional institutions and juvenile centers. A research paper is required for each correctional internship.

### **CorT 0201 — Correctional Interview and Counseling Techniques (3)**

A study of interviewing and counseling techniques, in general, and their specific applications to corrections. Some special problems to be considered are: the involuntary client, independence in the closed setting, and relationship building.

### **CorT 0202 — Drug Abuse (3)**

This course will deal with identification of users, effects of drugs, rehabilitation of drug users, and the role of an institution in combating the internal drug abuse problem.

### **CorT 0203 — Correctional Psychology (4)**

Psychology dealing with problems with predominant to the personalities entering a correctional facility. Level quay psychology - psychoanalytic. He will be expected to know where the various approaches are being used and be required to study one of them in depth.

### **CorT 0204 — Correctional Law (5)**

This course will allow the student to have an understanding of constitutional, criminal, and correctional law. He will study how interaction of these laws control our human behavior.

### **CorT 0205 — Group Interaction (2)**

A three-credit course, the purpose of which is to introduce students to the complexities of interpersonal relationships. The prerequisite is Introduction to Psychology. Students will meet as a group on a regular basis in order to exchange ideas about themselves and others. The aim of the course is for students to gain a greater understanding of themselves, to increase their sensitivity to others, and to facilitate communications.

### **CorT 0206 — Correctional Case Evaluation (5)**

This course will allow a student to first select a certain type of criminal case. Then he will have an opportunity to meet with the individual who is connected with the case and develop a program, along with his supervisor, which would provide an opportunity for rehabilitation.

### **CorT 0207 — Observation Techniques (2)**

This course will teach an individual how to observe, how to interpret what he is observing, how this would be used in the rehabilitation process, and the value of observation in relation to institutional security.

**CorT 0208 — Correctional Programs (5)**

This will deal with all of the programs which the correction field uses in its systems — treatment, social services, pre-release, religion, discipline, visitation, education, etc.

**CorT 0209 — Research Appreciation in Corrections (5)**

The student will select a research project in relation to correction. He will develop the project and explore the various methods of research that would be associated with the project.

**CorT 0210 — Principles of Leadership (4)**

This course will help officers evaluate their own understanding of human relations and pinpoint areas of strength and weakness in relationship with leadership skills: How to understand the drives that motivate man in his work; how to praise, how to reprimand, how to handle disciplinary problems, and techniques of communicating ideas.

**CorT 0212 — Community Programs (5)**

This course will explore the programs which could bring together the institution and the community, so each would be able to identify its role and understand how, by uniting forces, the rehabilitation process would be expedited.

**DATA PROCESSING****EDPT 0101 — Basic Language (3)**

An introductory course in computer programming using the BASIC language. Writing, testing, and debugging simple programs will be required.

**EDPT 0102 — Introduction to Data Processing (3)**

Historical background, computer applications, social implications, data representation and numbering systems, file organization, flow charting, and a survey of programming languages.

**EDPT 0103 — COBOL I (4)**

Prereq. EDPT 0102

Common Business Oriented Language (COBOL) programming with emphasis on American National Standard capability. The student will write several programs using punched cards, magnetic tape, sequential disk files and line printer. Flow charting, coding, testing, debugging, and documentation are required.

**EDPT 0104 — COBOL II (4)**

Prereq. EDPT 0103.

COBOL programming to include advanced techniques, table lookup, random and indexed file processing, terminal utilization, and structured programming. The student will write several programs and document them.

**EDPT 0105 — Systems Analysis & Design (4)**

Prereq. EDPT 0102 and one computer language or department permission.

Basic concepts and standard conventions concerning system design and analysis including problem definition, information requirements, system flow charting, system study, and various documentation techniques. Structured systems and centralized — decentralized approaches.

**EDPT 0106 — RPG II Language (4)**

Prereq. EDPT 0102

A programming course in Report Generator II (RPG) Language. The basics of an RPG program — input, output, calculation, and file specifications — and advanced techniques in disk processing. Writing, testing, debugging and documentation of programs will be required.

**EDPT 0201 — Computer Operations Management (3)**

Prereq. EDPT 0102

Personnel policies, computer management procedures, equipment acquisition, and management of resources as it relates to data processing problems. Instruction of basic management principles to effectively manage a computer system, computer personnel, and resources.

**EDPT 0202 — Business Computer Projects I (3)**

Prereq. EDPT 0104 or 0106 and EDPT 0105 or department permission.

An individual or team will design, program, and execute a solution to a data processing problem using a language previously learned by the student. Actual business/industrial problems or simulations will be used. Documentation and oral presentation will be required.

**EDPT 0203 — Computer Applications (3)**

Prereq. EDPT 0102 or department permission

A study of the kinds of applications and systems for which computers are used such as banking, production control, computer assisted instruction, typesetting, airline reservations, cost accounting, and teleprocessing.

**EDPT 0204 — Business Computer Projects II (3)**

Prereq. EDPT 0202

An advanced workshop providing for additional experience in applying computer technology to real world problems.

**EDPT 0205 — Business Data Systems & Communications (4)**

Prereq. EDPT 0102 and one computer language or department permission.

A study of man-machine interactions through teleprocessing, telecommunication systems. Emphasis on current timesharing languages and data base, and management information systems (MIS). Problem solving techniques requiring the use of terminals will be learned. Laboratory project included.

#### **EDPT 0206 — Fortran IV (4)**

Prereq. MATH 0112

A basic course in Fortran. Fortran arithmetic, formats, do loops, arrays, program flow charting, testing debugging, and documentation will be discussed and implemented using the computer. The student will write several programs to solve statistical math and elementary science problems.

#### **EDPT 0221 — Systems Programming and Lab I (5)**

Introduction to the basic rules of COBOL. Using COBOL to produce various business reports with complete documentation on each program.

#### **EDPT 0222 — Systems Programming and Lab II (6)**

A deeper study of COBOL using tables, internal sorts, and a variety of different commands. An introduction to different methods of accomplishing programming problems and when each method could be used.

#### **EDPT 0223 — Advanced Programming (5)**

A complete individual program, different for each student, based on the system analysis project produced by the System Analysis course. Methods of saving memory and increasing speed will be developed.

#### **EDPT 0231 — Systems Analysis (4)**

Various considerations inherent in designing a business system, file design, use of proper controls. Principles of form design for source documents and printed outputs. Investigation and evaluation of various systems with the goals of producing a new automated system.

#### **EDPT 0241 — Systems Accounting DP Applications (4)**

A study of the collection, processing, and interpretation of materials costs, labor costs, and marketing costs, including case studies which illustrate the objectives and role of the computer in cost accounting systems.

#### **EDPT 0251 — Case Study - Computer Systems (5)**

Analysis of present information flow, system specification, and equipment selection, implementation of the system. An individual study with written and verbal reports of different equipment and different languages.

## **DENTAL HYGIENE**

#### **DtHy 0101 — Radiology (3)**

History and development of the x-ray, its nature and properties. Safety precautions and uses of the x-ray in dentistry. Theory and practice in the fundamentals of oral radiographic techniques. Film placement, tube angulation, processing and mounting of films. Instruction on reading radiographs and normal/abnormal things which would be seen. A specific number of radiographic examinations and hours in darkroom procedures are required throughout the two-year Dental Hygiene program.

#### **DtHy 0102 — General and Oral Histology and Embryology (3)**

Study of development of tissues and structures from a histological and embryological basis. Emphasis on development of the tissues of the teeth, and other oral structures and their functions. A thorough understanding is necessary for subsequent courses: Pathology, Periodontology, Radiology, etc.

#### **DtHy 0103 — Dental Materials (5)**

Physical properties of materials used in dentistry and basic principles of their preparation and use. Techniques for using restorative materials, impression materials, and laboratory procedures. In a laboratory setting, students learn techniques in working with the various types of dental materials.

#### **DtHy 0111 — Head & Neck Anatomy I (2)**

Detailed study of the anatomy of the head and neck. Special emphasis is made toward the face and jaws. Cranial skeleton with emphasis on facial bones. Muscles of the head and neck: functions, nerve and blood supply. Detailed study of the circulatory system. Lymphatic drainage; importance and anatomy. Temporomandibular joint; function and anatomy. Detailed study of topographical and functional anatomy of oral cavity and pharynx.

#### **DtHy 0112 — Head & Neck Anatomy II (2)**

A further study of the anatomy of the head and neck. Emphasis is placed on nerve supply, salivary glands, fascia and planes of the head and neck region.

#### **DtHy 0113 — Tooth Morphology I (1)**

Study of evolution of tooth form, physiology and fundamentals of tooth form, supporting structures of the teeth and positions and relationships to other structures of oral cavity. The primary dentition is discussed thoroughly and comparisons made with the permanent teeth. The permanent dentition is then studied in general. Laboratory includes drawings of permanent teeth, and identification of extracted teeth.



**DtHy 0114 — Tooth Morphology II (1)**

A further study of tooth form and mechanisms of the dental apparatus. More emphasis is placed on carving selected teeth from wax to understand anatomy and contours, and identification of extracted teeth.

**DtHy 0121 — Clinical Dental Hygiene I (4)**

The introduction to the professional including History & Development of Dental Hygiene; medico-dental terminology; principles of preventive dentistry, the roles of plaque, nutrition, fluoride; principles and methods of patient education plaque removal and control; the prevention of disease transmission; study etiology of the formation of calculus and stains; diagnostic data collection; guidelines for professional appearance; patient/operator positioning, basic instrumentation, design and construction of instruments and instrument sharpening; lab practice on typodonts for manual dexterity in the control and use of instruments and the transferring of acquired skills to a living subject.

**DtHy 0122 — Clinical Dental Hygiene II (4)**

The hygienist's role in dental hygiene patient care which includes the objectives for the practice of dental hygiene care, the introduction to general clinic routines and importance of complete patient records and screening techniques. Skills practices included are detection of hard and soft deposits, scaling and polishing techniques, study of occlusion, study casts, charting, techniques of fluoride application, oral hygiene assessment, patient education and management techniques, and medical and dental emergencies.

**DtHy 0123 — Clinical Dental Hygiene III (4)**

A continuation and review for the application of previously learned techniques and procedures of dental hygiene care and services in the clinic atmosphere that the dental hygienist could perform in practice. Advanced skills include desensitization, use of cavitrion, use of radiographs in evaluation and charting, principles of sit-down four-handed dentistry and the handling of patients with special needs and problems.

**DtHy 0124 — Clinical Dental Hygiene IV (6)**

A continuation of Clinic III techniques and procedures; dental office practice management and special seminars.

**DtHy 0125 — Clinical Dental Hygiene V (5)**

A continuation of clinic procedures and practices with further study in nutritional counseling, legal and ethical factors involved in the profession, special seminars on dental specialties, expanded duties, and extra-mural clinic assignments.

**DtHy 0126 — Clinical Dental Hygiene VI (5)**

The continuation of clinical procedures in the delivery of dental hygiene care. Advanced clinical techniques and seminars are included.

**DtHy 0127 — Clinical Dental Hygiene VII (5)**

Complete dental hygiene care involving patient case reports; seminars.

**DtHy 0201 — General and Oral Pathology (3)**

An introduction to pathology. Processes of inflammation, necrosis, retrograde changes and wound healing are discussed. Etiologies, diagnosis, treatment and prognosis of oral lesions are discussed. Clinical pathology of diseases affecting teeth and their supporting structures. Visual aids are used to study oral lesions and their clinical manifestations.

**DtHy 0202 — Periodontics (3)**

A study of the periodontal tissues which surround and support the teeth. Etiologies and classifications of periodontal disease. Treatments and principles of periodontics are discussed.

**DtHy 0203 — Nutrition (3)**

A study of normal nutrition and its role in promoting good health. Includes composition and functions of foods, digestion and metabolism. Nutritional needs throughout the life cycle. Special emphasis placed on nutritional counseling.

**DtHy 0204 — Pharmacology and Anesthesiology (4)**

Drugs and anesthetics used and encountered in dentistry. Discussion of the origin, physical and chemical properties, effects on body systems, indications and contraindications for use, and method of administration and elimination.

**DtHy 0205 — Dental Health Education (3)**

Analysis of concepts, techniques of presentation and goals of Dental Health Education. Major emphasis is placed on preparation and use of lesson plans and instructional materials for teaching dental education. Classroom instructions of dental health in Elementary and Secondary Schools.

**DtHy 0206 — Public Health (3)**

Historical development of public health practices in the United States as they relate to Dental Hygiene; present administrative organizations and their functions and services; exploration of present public health concepts.

**DIESEL****DSEL-0201 — Heavy Duty Drives; 6 hrs.**

A comprehensive study of typical heavy duty power transmission units used in truck, tractors, and crawlers, such as clutches, transmissions, the fluid coupling and fluid torque converter, drive axles, track drives, propeller shafts and universal joints, and power take-offs, and winches.

**DSEL 0202 — Diesel Engines; 6 hrs.**

A course designed to acquaint the student with troubleshooting and service procedures of 2- and 4-stroke cycle diesel engines. Special emphasis is placed on general terminology, combustion chamber design, engine governors, turbo-chargers, blowers and filters, and testing of the engine for performance characteristics.

**DSEL 0211 — Diesel Fuel Injection I; 6 hrs.**

This course is a lecture and laboratory combination and includes study of diesel fuels, primary and secondary fuel distribution, and injection. Instruction is provided on common rail systems, unit injectors, and primary pump systems as used on trucks and heavy equipment applications.

**DSEL 0212 — Diesel Fuel Injection II; 6 hrs.**

This lecture-laboratory course is a continuation of Diesel Fuel Injection I with accent on secondary pumps, high pressure distribution systems and injectors, fuel injection pumps and governors. Service procedures and practices are incorporated in the laboratory.

**DSEL 0221 — Service and Maintenance Management; 4 hrs.**

A course designed to provide practical orientation to the management functions of heavy equipment and trucking service centers. Accent is placed on the following topics: preventive maintenance records, equipment control records, inventory control, vehicle operational costs, part procurement procedures and shop supervision. Information is presented on the rules and regulations pertaining to equipment maintenance as prescribed by the Department of Transportation.

**ECONOMICS****Econ 0101 — Principles of Economics I (4)**

Introduction to basic economic issues, terminology, and theory. Macro economics: including national income analysis, business cycles, role of institutions, and economic growth.

**Econ 0102 — Principles of Economics II (4)**

Prereq. Econ 101.

Micro economics: the study of the development and application of basic tools of analysis, applied to the different forms of competition, income distribution, trade, and international payments.

**Econ 0206 — Consumer Economics (4)**

The purpose of this is to help social services technology students become informed about buying, money management, and issues so that they can individually or collectively make changes which will strengthen the American market place.

**EDUCATION****Educ 0101 — Introduction to Education (4)**

An introductory study of the broad and complex field of education. Emphasis on professional and personal requirements for successful teaching.

**ELECTRO-MECHANICAL ENGINEERING****EMng 0101 — Electro-Mechanical Devices (3)**

Prereq. EMng 0112 concurrently or advisor approval.

An introduction to devices where both electrical and mechanical principles are utilized. The course content includes DC motors and generators, 3-phase circuits, transformers, induction motors, alternators, and synchronous motors.

**EMng 0103 — Electro-Mechanical Drawing (2)**

Prereq. EnDr 0101 or advisor approval.

The study of mechanical drawing of both electrical and electronic circuits and components using electrical and electronic symbols. Drawing assignments include power distribution, logic diagrams, printed circuits, and schematics and pictorial views.

**EMng 0111 — Electrical Fundamentals I (4)**

Prereq. Math 0130 concurrently or advisor approval.

An introductory course in the study of electricity. Basic definitions of energy and electricity are introduced which lead to studies of resistance, Ohm's law, series and parallel circuits, magnetism, simple meters, inductance, and capacitance. Direct current effects only are studied.

**EMng 0112 — Electrical Fundamentals II (4)**

Prereq. EMng 0111 or advisor approval.

Simple inductance-resistance and capacitance-resistance transient circuits are initially studied. Studies of alternating current fundamentals, phasor algebra, AC circuit analysis, power factor, and resonance complete the course.

**EMng 0121 — Electronics I (4)**

Prereq. EMng 0112 or advisor approval.

A modern introduction to discrete, bipolar solid state electronic devices and basic electronic circuits including small signal amplifiers, transistors biasing, equivalent circuits, electronic unregulated DC power supplies, and special solid state devices.

**EMng 0122 — Electronics II (3)**

Prereq. EMng 0121 or advisor approval.

Continuation of Electronics I. Frequency response, decibels, cascaded amplifiers, feedback amplifiers, power amplifiers, field effect amplifiers, unijunction transistors, control circuits, regulated DC power supplies, and solid state oscillators.

### **EMng 0201 — Introductory Electro-Mechanical Systems (3)**

Prereq. EMng 0112, 0101, 0121.

An introduction to systems which use both electrical and mechanical principles. Thermal, hydraulic, pneumatic, vacuum, magnetic and optic systems are utilized to stress the coordinated combination of previously learned concepts. A key course in the program.

### **EMng 0202 — Mechanical Analysis (4)**

Prereq. Math 0131.

The analysis of forces or loads acting upon a body or structure, and how the structure is enabled to resist these external forces. A study of statics and strength of materials of many of the common industrial structures such as beams riveted and welded joints, and thin walled pressure vessels. This includes the equilibrium of forces, tension, compression and shear stress, deformation, torsion, centroids and moments of inertia.

### **EMng 0203 — Mechanics and Dynamics (2)**

A study of stresses, vibrations, linkages, gears, and other machine elements found in complex electro-mechanical systems. Logical application of theory to the design and functioning of machine elements.

### **EMng 0204 — Control Devices (3)**

Prereq. EMng 0122 or advisor approval.

Control devices respond to a variety of inputs. These may be created by temperature changes, pressure variations, rates of flow, potentials generated by light energy, moisture conditions, or any one of a number of physical conditions.

### **EMng 0205 — Automatic Control Systems (4)**

Prereq. EMng 0101, 0112, 0122, 0202, Math 0131, 0132, Physics 0201 or advisor approval.

Electro-mechanical systems are controlled by many different types of inputs and produce a vast variety of outputs. Commercial equipment response to pneumatic, hydraulic, and electrical or electronic inputs will be investigated. The purpose of the course is to consider the various basic control systems — on-off, proportional, proportional plus reset, and proportional plus reset plus rate.

### **EMng 0206 — Hydraulics and Pneumatics (3)**

A study is made of the function of various basic components of hydraulic and pneumatic sub-systems and methods of combining them to build various systems. The emphasis is on the use of hydraulic and pneumatics for power transmission and for control purposes.

### **EMng 0207 — Electro-Mechanical Design (3)**

Prereq. EMng 0101, 0122, 0201, 0211, 0203, 0204 or advisor approval. A course to exercise the student's knowledge of electro-mechanical technology. It provides the time and opportunity for students to work on the design, fabrication, assembly and testing of electro-mechanical devices or systems. The purpose is to promote independent study, initiative, and creativity by requiring the student to develop the design with minimal staff supervision.

### **EMng 0208 — Electro-Mechanical Systems (3)**

Prereq. EMng 0101, 0122, 0201, 0204, 0205, 0206, 0211, or advisor approval.

Electro-mechanical systems are analyzed in detail to show how few are the principles involved in even extremely complex devices. This course embodies all of the principles which have been considered previously in the program. Thorough understanding of the applied principles is the aim of the course.

### **EMng 0211 — Electronics Logic Circuits I (3)**

Prereq. EMng 0121 or advisor approval.

An introduction to discrete, solid state electronic logic. Practical applications of passive and active waveshaping networks, solid state logic gates, binary pulse circuits, and computer arithmetic.

### **EMng 0212 — Electronic Logic Circuits II (3)**

Prereq. EMng 0211 or advisor approval.

Continuation of Logic Circuits I. Introduction to integrated circuit logic. Printed circuits, pulse circuits, counters, registers, decoders, and signal converters. Emphasis on integrated circuit applications.

## **EMERGENCY MEDICAL TECHNICIAN — PARAMEDIC**

### **EMT-A 0101 — EMT Orientation (5)**

Introduction to the roles and responsibilities of the EMT. This course includes relations to victims, other medical personnel, and other official persons. Labs will include field trips to operational emergency victim care suppliers.

### **EMT-A 0102 — Emergency Medical Condition & Technique (5)**

Instruction involves patient problems relating to life threatening and environmental emergency conditions and the application of principles and practice of techniques utilized to cope with same. Includes such problems as cardio-pulmonary, bleeding, shock, stroke, fractures, and exposure to hazardous and extreme environmental situations such as exposure to heat, cold, radiation, and electrical injuries. Will also include observation of vital signs and triage.

### **EMT-A 0103 — Advanced Emergency Medical Skills & Technique (5)**

A continuation of EMT 0102. Concentration on common injuries, fainting, insect and animal bites, poisons, drug abuse, burns, diabetic reactions, mental disorders, and injuries to eyes, nose, ears, and genitals.

### **EMT-A 0104 — Extrication, Moving & Handling (3)**

Instruction on the use of equipment and methods of removing victims from auto and other entrapments.

### **EMT-P 0106 — Care of Acute Cardiac Emergencies I (8)**

Instruction in life support and/or intensive care techniques involving cardiac monitoring, defibrillation, airway or gastric intubation, relief of pneumothorax, and administration of appropriate drugs and intravenous fluids. Lab includes in-hospital and ambulance experience.

### **EMT-P 0107 — Equipment and Communications (3)**

Instruction on the functions of heart monitoring devices, defibrillation devices, and the use of telemetry systems.

### **EMT-P 0108 — Pharmacology (2)**

Instruction deals with the action and reactions of commonly used drugs and emphasizes those used in emergency situations.

### **EMT-P 0109 — Care of Acute Medical Emergencies II (6)**

Continuation of EMT-P 102 with greater emphasis on clinical experience in intensive care units, emergency room and ambulance.

## **ENGINEERING**

### **Engr 0101 — First Aid & Safety (1)**

The Standard and Personal Safety American Red Cross first aid course, involving CPR, bleeding control, poisoning treatment, proper methods of transportation, bandaging and splinting. The course involves lectures, practical work and group work. The standard certificate is granted if at least 20 hours of classwork is completed and all requirements are met.

### **Engr 0209 — Industrial Supervision (3)**

Prereq. Second year course only or advisor approval. Training in the methods of handling management problems, setting policies, personnel problems, etc. To equip the student for possible supervisory positions.

## **ENGINEERING DRAWING**

### **EnDr 0100 Blueprint Reading (2)**

This course is designed to provide the student with fundamental knowledge of blueprints and engineering drawings and some skill in the reading and interpretation of drawings. It includes engineering drawings and blueprints; mechanical drawings; lines used on drawings; sectional views; common conventions; abbreviations and notations on drawings; scales; dimensions; fits and finish marks; surface roughness and lay, threads; rivets; tapers; and examples of blueprint reading.

### **EnDr 0101 — Engineering Drawing I (3)**

This is a basic course for students who have had little or no experience in engineering drawing. The principal objective is to acquire a basic understanding of the fundamental principles of engineering drawing through actual experience in both free-hand sketching and scaled machine drawings. Subject areas relating to this include orthographic, multiview drawings, geometric constructions, dimensioning practice, sectional views, and auxiliary views.

### **EnDr 0102 — Engineering Drawing II (3)**

Prereq. EnDr 0101 or advisor approval.

The student is introduced to the techniques and principles employed in structural drawing, including structural-steel, timber construction, topographic work with emphasis on contour platting. The course is intended to train the student in the drafting methods used in civil engineering.

### **EnDr 0103 — Engineering Drawing III (3)**

Prereq. EnDr 0101 and 0102 or advisor approval.

The purpose of this course is to enable the student to apply basic principles of engineering drawing, which were learned in prior courses, to solve practical problems encountered in civil engineering. Applied descriptive geometry is used to determine the relationship between points, lines, and surfaces in space. Study areas also include revolutions, vector geometry, and intersections of lines and surfaces.

## ENGLISH

Students enrolled in programs leading to the Associate Degree of Applied Business or the Associate Degree of Applied Science must take 3 courses (12 credit hours) from the following courses:

English 0111, 0112, 0115, 140A, 140B, 140C, and 140D.

In addition, Technical Writing and Speech may be required in some technical programs.

Students enrolled in programs leading to the Associate Degree of Arts or the Associate Degree of Individualized Studies must complete 2 courses (8 credit hours) from the following courses:

English 0111, 0112, 1005, 140A, 140B, 140C, and 140D.

In addition, 3 hours of speech from Speech 0101 or Speech 0102 is required for students completing the Associate Degree of Arts or the Associate Degree of Individualized Studies.

Students with serious deficiencies in reading and composition should take 0095 Study Techniques before taking English 0111, 0112, 0115, 140A, 140B, 140C, and 140D.

### Engl 0111 — Contemporary Writing Skills I (4)

This course reviews (1) syntax, grammar, and punctuation, (2) studies techniques of good writing style, and (3) introduces the student to coherent writing. The student becomes aware of different demands of purpose, topic, and audience when writing a paper. 4 lec. 1 lab.

### Engl 0112 — Contemporary Writing Skills II (4)

This course continues the emphasis on basic skills for writing clearly and effectively. This course assists the student in understanding the rhetorical devices which contribute to good writing. Fundamentals of writing research papers are included. 4 lec. 1 lab.

### Engl 0115 — Composition and Mass Communication (4)

This course covers the nature and function of all forms of mass communication — newspapers, television, radio, film, and the related topics of advertising and public relations. Basically, the student is instructed how to become a more aware consumer of media. The writing assignments are structured to help the student critically judge various media. 4 lec. 1 lab.

### Engl 0121 — Technical Writing (3)

Prereq. Sophomore Standing in a Technical Program

Technical Writing stresses clarity in technical communications with emphasis on the improvement of writing style and the mastery of exact organization. Types of writing include reports (formal and informal), proposals, resume, and specifications. BECAUSE OF THE TEXTBOOK AND SPECIFIC WRITING ASSIGNMENTS, THIS COURSE IS NOT RECOMMENDED FOR LIBERAL ARTS STUDENTS.

### English 0122 — Technical Writing (4)

Prereq. Sophomore Standing in Retail Mid-Management

Technical Writing emphasizes the written and spoken communication in business field. Business communication skills are stressed including business letters, reports, and business forms. Because of the textbook and specific writing assignments, this course is NOT RECOMMENDED FOR LIBERAL ARTS STUDENTS.

### Engl 0140 — Topics in English Language and Literature

Fr. and Soph. Each course focuses on literature, mostly literature of the 20th century considering humanistic problems, themes or issues important today. Each course includes several literary genres (novels, short stories, poems, plays, and essays). The aims are to improve the students' abilities in appreciative and analytical reading, clear thinking, discussion, careful persuasive and imaginative writing. 4 lec. 1 lab.

140-A Literature of Initiation and Experience 4 hrs.

140-B Masculine and Feminine Images in Literature 4 hrs.

140-C Literature of Imagination 4 hrs.

140-D Literature of Black Authors 4 hrs.

### Engl 0201 — Introduction to Fiction (4)

Prereq. 4 hrs. above 100.

This course provides a study of the forms and techniques of the novel, novella, and the short story.

### Engl 0202 — Introduction to Poetry (4)

Prereq. 4 hrs. above 100.

There is intensive reading of selected poems from all periods of English and American literature and study of forms and techniques.

### Engl 0203 — Introduction to Drama (4)

Prereq. 4 hrs. above 100.

Modern dramatic forms are analyzed. Selections include translations of world masterpieces as well as English and American drama.

### Engl 0204 — Comparative Literature I (4)

Prereq. 4 hrs. above 100.

Selected classical texts as well as modern writings in the classical style are used. The purpose is to recognize and define classical sensibility in western literature.

### Engl 0205 — Comparative Literature II (4)

Prereq. 4 hrs. above 199.

This course deals with the aesthetic and philosophical concepts that distinguish the Romantic tradition in western literature. Primarily the works of German, English, and French authors are studied.

**Engl 0206 — Comparative Literature III (4)**

Prereq. 4 hrs. above 199.

Selected literary works are used which provide background for and examples of modern writing in today's world.

**Engl 0225 — Introduction to American Literature (4)**

Prereq. 8 hrs. above 100.

Themes and ideas in 19th and 20th centuries of American literature are studied.

**Engl 0226 — Introduction to English Literature (4)**

Prereq. 8 hrs. above 100.

Themes and ideas in 19th and 20th centuries of English literature are studied.

**Engl 0290A — Topics in English (2)**

Study of various topics in English otherwise not available to students.

**Engl 0290B — Topics in English (3)**

Study of various topics in English otherwise not available to students.

**EXECUTIVE SECRETARIAL****ExST 0101 — Typing I (3)**

Typing I is a study of the touch system of typewriting with emphasis on development of speed and accuracy and the production of simple problems such as: personal notes, letters, outlines, and short tabulated reports. This class will be waived for the student who has already completed the equivalent of Typing I during previous training. This waiver must be approved by the secretarial advisor.

**ExST 0102 — Typing II (3)**

Prereq. Typing I.

Typing II is a continuation of Typing I with students applying basic typing techniques to increasingly more difficult problems.

**ExST 0103 — Typing III (3)**

Prereq. Typing I & II.

Typing III is a continuation of Typing II with emphasis on developing the student's ability to produce mailable copy of technical reports, drafts, business correspondence, etc.

**ExST 0111 — Shorthand I (3)**

The student is taught to read and write Gregg shorthand and develop the nonshorthand elements of transcription which include vocabulary development, spelling, punctuation, and grammar. This class will be waived for the student who has already completed the equivalent of Shorthand I during previous training. This waiver must be approved by the secretarial advisor.

**MdST 0111 — Medical Shorthand I (3)**

Designed to give advanced shorthand students practice in note taking and transcription of medical reports, diagnoses, case histories, and correspondence.

**LgST 0111 — Legal Shorthand I (3)**

Designed to give practice in note taking and transcription to advanced shorthand students. Preparation of legal correspondence, pleadings, testimonies and depositions.

**ExST 0112 — Shorthand II (3)**

Prereq. Shorthand I.

A continuation of Shorthand I designed to perfect shorthand theory, phonetics, word families, brief forms and phrases, and penmanship. Students are encouraged to raise speed and accuracy levels.

**MdST 0112 — Medical Shorthand II (3)**

Prereq. Medical Shorthand I

A continuation of Medical Shorthand I. This course is designed to develop skill in writing and transcribing shorthand notes containing words and phrases commonly used in the language of medicines.

**LgST 0112 — Legal Shorthand II (3)**

Prereq. Legal Shorthand I.

This course is designed to develop skill in writing and transcribing shorthand notes containing words and phrases commonly recurring in the spoken and written language of law.

**ExST 0113 — Shorthand III (3)**

Prereq. Shorthand I & II.

A continuation of Shorthand II with greater emphasis on building speed and accuracy.

**ExST 0214 — Shorthand IV (3)**

Prereq. Shorthand I, II & III.

A systematic development of a business vocabulary to prepare the student to work at high speeds in shorthand. The use of shortcuts and high frequency brief forms and derivatives will be emphasized.

**ExST 0215 — Shorthand V (3)**

Prereq. Shorthand I, II, III & IV.

A continuing development of high speed in shorthand through the use of shortcuts and high frequency brief forms and derivatives. Students will be given a wide variety of dictation with emphasis on individual speed development.

**ExST 0120 — Business Machines I (3)**

Prereq. Business Math I

A study of various types of modern office machines, including adding-listing machines, electronic and mechanical calculators.

**ExST 0121 — Business Machines II (for secretarial majors only) (3)**

Prereq. Typing I, II & III

A study of office duplicators and copiers, executive typewriters, and the composer.

**ExST 0221 — Dictation and Transcription I (3)**

Prereq. Typing I, II and Shorthand I, II.

A supplemental course to Shorthand III emphasizing practice in taking dictation and transcribing at various rates of speed for mailable copy. Office style dictation procedures will be emphasized.

**MdST 0221 — Medical Dictation and Transcription I (3)**

Prereq. Typing I, II, & III and Shorthand I, II, & III.

Emphasis is on the development of mailable transcription from a transcribing machine, medical vocabulary building, and a review of punctuation and spelling.

**LgST 0221 — Legal Dictation and Transcription I (3)**

Prereq. Typing I, II, & III and Shorthand I, II, & III.

Emphasis is on the development of mailable transcription from a transcribing machine, legal vocabulary building and a review of punctuation.

**ExST 0222 — Dictation and Transcription II (3)**

Prereq. Dictation and Transcription I.

A supplemental course to Shorthand IV designed to develop the student's ability to use transcription equipment for mailable copy.

**MdST 0222 — Medical Dictation and Transcription II (4)**

Continuation of MdST 0221. Emphasis is on mailable transcription to meet medical office standards.

**LgST 0222 — Legal Dictation and Transcription II (4)**

Continuation of LgST 0221. Emphasis is on mailable transcription to meet legal office standards.

**MdST 0223 — Medical Terminology I (3)**

Prereq. Shorthand I, II, & III.

Develops skill in writing and transcribing words and phrases occurring in the spoken and written language of medicine.

**LgST 0223 — Legal Terminology & Judicial Procedures I (3)**

Prereq. Shorthand I, II & III.

A study of customary terms and practices in law offices, legal departments of business organizations, and courts.

**MdST 0224 — Medical Terminology II (3)**

Continuation of MdST 0223.

**LgST 0224 — Legal Terminology & Judicial Procedures II (3)**

Continuation of LgST 0223.

**ExST 0231 — Records Management (3)**

A comprehensive course dealing with the creation, distribution, retention, utilization, storage, retrieval, protection, preservation, and final disposition of all types of records within an organization.

**ExST 0241 — Secretarial Practices I (3)**

Prereq. Typing I, II, & III, Shorthand I, II & III, Records Management, Business Machines I & II, Dictation and Transcription I.

A course designed to emphasize the responsibilities and opportunities of a secretarial position, as well as the personal qualities necessary for secretarial success. Opportunity is provided for the students to use "word processing" skills, transmittal services, and records management in realistic office situations.

**MdST 0241 — Medical Secretarial Practices I (3)**

Prereq. Typing I, II & III, Shorthand I, II, & III, Records Management, Business Machines I & II, Dictation and Transcription I.

An introduction to the general responsibilities required by a medical secretary, including the preparation of medical documents and development of a competent medical vocabulary.

**LgST 0241 — Legal Secretarial Practices I (3)**

Prereq. Typing I, II & III, Shorthand I, II & III, Records Management, Business Machines I & II, Dictation and Transcription I.

An introduction to the general responsibilities required by a legal secretary, including the preparation of legal documents and the development of a competent legal vocabulary.

**ExST 0242 — Secretarial Practices II (3)**

Prereq. Secretarial Practices I.

The class encompasses a variety of secretarial duties such as assistance with travel arrangements, planning meetings, the presentation of business data, and handling financial and legal responsibilities. The variety of job opportunities open to the college-trained secretary and the essentials for achieving professional status are discussed. Each of these topics is placed in a realistic office simulation so the student may learn by doing.

**MdST 0242 — Medical Secretarial Practices II (3)**

Prereq. Medical Secretarial Practices I.

A continuation of MdST 0241. In addition, a general background in basic diagnostic tests, techniques, and assisting with patients is provided.

**\*ExST 0243 — Secretarial Practices III (5) Block Program — Classroom**

Prereq. All classes in major that are required for graduation.

Secretarial Practices III will be completed in the classroom where students will assume a variety of office jobs in a fictitious company and thereby develop and apply a wide range of clerical skills.

**\*ExST 0244 — Secretarial Practices IV (5) Block Program — On the Job**

Prereq. All classes in major that are required for graduation.

This class will be completed as actual work experience in a local business, industrial, or professional office.

\*This student may take either ExST 0243 or ExST 0244, but his choice must be approved by his advisor.

## FRENCH

**Fren 0111 — Elementary French (4)**

Beginning course of a 3-qtr. 1st-year sequence. Basic grammatical concepts and patterns. Emphasis on development of reading, listening, comprehension, speaking and writing skills. Basic text and workbook used. Lab required.

**Fren 0112 — Elementary French (4)**

Prereq. 111.

Continuation of 111. Basic text, workbook and readings used. Lab required.

**Fren 0113 — Elementary French (4)**

Prereq. 112.

Continuation of 112. Basic text, workbook and readings used. Lab required.

**Fren 0211 — Intermediate French I (4)**

Prereq. 113.

Includes an intensive review of grammar and sentence structure, and introduces the student to selected readings in French literature. Oral facility is stressed. 3 lec. 2 labs.

**Fren 0212 — Intermediate French II (4)**

Prereq. 113 or instructor's approval.

Continued intensive review of grammar is given. Sight translation is stressed. Conversational drills include advanced idiomatic expressions. 3 lec. 2 labs.

**Fren 0213 — Intermediate French III (4)**

Prereq. 212 or instructor's approval.

Advanced vocabulary and sentence structure are stressed. Emphasis is on writing and free composition. 3 lec. 2 labs.

## GEOGRAPHY

**Geog 0101 — Physical Geography (5)**

Systematic survey of earth-sun relationships, land forms, climate, soils and natural vegetation. 4 lec. 2 labs.

**Geog 0121 — Cultural Geography (4)**

Systematic survey of settlement, population, and economic activities that are significant to man.

**Geog 0125 — World Geography (4)**

Systematic regional survey of world geographical conditions. Emphasis on physical, cultural, and economic activities.

**Geog 0130 — Economic Geography (4)**

Systematic survey of locational economic patterns and their inter-relationships.

**Geog 0201 — Environment and Man (4)**

Geographic survey of environmental changes caused by man's activities. Focus on pollution of air and water and destruction of plant and animal communities.

**Geog 0230 — Urban Geography (4)**

Study of city function, patterns, past and current problems confronting the city including planning, zoning, housing, and urban renewal.

**Geog 0240 — Geography of Eastern United States (3)**

Systematic and regional survey of eastern United States. Emphasis on cultural and economic development.

**Geog 0241 — Geography of Western United States (3)**

Systematic and regional survey of western United States. Emphasis on cultural and economic development.

**Geog 0242 — Geography of Ohio (3)**

Detailed regional study of physical background, settlement and economic development.

## GEOLOGY

**Geol 0101 — Physical I (4)**

A study of the Earth's basic materials and their formation, Volcanism, Metamorphism, and sedimentation, with the rocks evolving from each of these processes and the natural resource minerals associated with each process. 3 lec. 3 labs.

**Geol 0102 — Physical II (4)**

Continuation of 101 as a study of the process effecting each of the above including crystallization, mapping, weathering, erosion, transportation of materials, glaciation, and mountain building. 3 lec. 2 labs.

**Geol 0103 — Historical I (4)**

Basic study of the Earth's history of formation, Paleo studies of plants, animals and landforms associated with each Geologic age. 3 lec. 2 labs.

**Geol 0201 — Common Rocks, Minerals, and Fossils (4)**

Identification of rocks, minerals and fossils can only be encountered on field trips, vacations, and in the immediate area of Scioto County. Not open to students with credit in 101 or 102. 3 lec.



## GOVERNMENT

### Govt 0100 — Introduction to the American Political System (4)

An introductory course in the basic fundamentals of the American political system, national, state, and local levels, with emphasis on structures, functions, political parties and the election process. Not recommended for students who have recently completed a senior h.s. course in civics or American Government.

### Govt 0101 — National Government (4)

Constitutional basis and development; political processes, structures, and functions of the national government.

### Govt 0102 — National Policy Issues (4)

Study of the administration and policy-making processes of the American national government in selected areas, i.e., foreign policy, welfare, environment, etc.

### Govt 0201 — Urban Politics (5)

Prereq. 101 or permission.  
Impact of urbanization on structure and functions of municipalities; emphasis on utilization of the political processes to resolve community conflict.

### Govt 0203 — Politics in the American States (5)

Prereq. 101 or permission.  
Comparative analysis of state political systems; emphasis on structure and process of policy making of the states within the federal context.

### Govt 0204 — Introduction to World Politics (4)

Political relations among states; methods and goals of diplomacy; sources of international tensions and conflicts; international organizations and conflict resolution.

### Govt 0205 — Politics of Appalachia (4)

Prereq. 101 or permission.  
Analysis of political processes in Appalachia; emphasis on the relationship between politics and economic development of the region. Major policies considered: mining and its regulation; War on Poverty in Appalachia; politics of taxation in the region.

### Govt 0230 — Governments of North America (4)

A comparative study of the governments of the U.S., Canada, and Mexico.

### Govt 0231 — Comparative Government (4)

Government and politics of Communist party states, with emphasis in the Soviet Union.

### Govt 0290 — Pro Seminar in Practical Politics (4)

Prereq. Permission only.  
Structure and operations of American political organizations; techniques of political campaigning.

### Govt 0299A — Current Political Topics (3)

Prereq. 12-15 hrs. govt. or permission.  
Special topics in selected policy areas, to be announced.

### Govt 0299B — Current Political Topics (4)

Prereq. 12-15 hrs. govt. or permission.  
Special topics in selected policy areas, to be announced.

## HEALTH, PHYSICAL EDUCATION, AND RECREATION

### HPER 0110 — Physical Education Activities (1)

Basic rules and fundamentals for each activity are stressed. Special emphasis on strategies, team, and individual play. An appreciation of each of the activities is developed to carry over into later life.

- 110-A Archery
- 110-B Badminton
- 110-C Basketball
- 110-D Bowling
- 110-E Conditioning & Weight Training
- 110-F Beginning Golf
- 110-G Intermediate Golf
- 110-H Judo
- 110-I Karate
- 110-J Beginning Swimming
- 110-K Intermediate Swimming
- 110-L Live Saving & Water Safety
- 110-M Beginning Tennis
- 110-N Intermediate Tennis
- 110-O Volleyball
- 110-Q Cycling
- 110-R Modern Dance
- 110-S Softball
- 110-T Fencing
- 110-U La Crosse
- 110-V Field Hockey
- 110-W Handball
- 110-X Yoga

### HPER 0202 — Personal and Community Health (4)

Fundamentals, practices and appreciation of healthful living. Designed to incorporate the principles of scientific health information and promote desirable attitudes and practices for individuals, parents, and teachers.

**HPER 0204 — Drugs, Alcohol, and Tobacco (3)**

In-depth study of contemporary issues — drugs, alcohol, and tobacco. The nature of the action and motivational forces that influence their use and procedures to provide effective education in the school and the home.

**HPER 0227 — First Aid (3)**

The Standard and Personal Safety American Red Cross first aid course, involving CPR, bleeding control, poisoning treatment, proper methods of transportation, bandaging and splinting. The course involves lectures, practical work and group work. The standard certificate is granted if at least 20 hours of classwork are completed and all requirements are met.

**HPER 0234 — Laboratory Experience in Physical Education (2)**

Prereq. P.E. Majors.  
Observation and research in physical education at the elementary and secondary levels.

**HPER 0239 — Athletic Officiating - Football (3) (Fall Qtr. Only)**

Rules, mechanics, and procedures in officiating. Practice under actual game conditions. State certification upon successful completion of state examination. OHSAA fee for certification and books.

**HPER 0240 — Athletic Officiating - Basketball (3) (Wtr. Qtr. Only)**

Rules, mechanics, and procedures in officiating. Practice under actual game conditions. State certification upon successful completion of state examination. OHSAA fee for certification and books.

**HPER 0241 — Athletic Officiating - Baseball (3) (Sp. Qtr. Only)**

Rules, mechanics, and procedures in officiating. Practice under actual game conditions. State certification upon successful completion of state examination. OHSAA fee for certification and books.

**HPER 0242 — Athletic Officiating - Track (3) (Sp. Qtr. Only)**

Rules, mechanics, and procedures in officiating. Practice under actual meet conditions. State certification upon successful completion of state examination. OHSAA fee for certification and books.

**HPER 0250 — Recreation Leadership (3)**

Lectures, discussion and group dynamics in social recreation. Dynamics involved include games, sports skills, dance, arts and crafts, nature studies, setting up various types of tournaments and practical work in community organizations.

**HPER 0261 — Introduction to Physical Education and Health (2)**

Prereq. P.E. Majors/Minors.  
Lectures, discussion, and visual aids pertaining to scope and content of a professional physical educator.

**HPER 0270 — Physical Education for the Elementary Classroom (3)**

Lab and lecture experiences for teaching physical education in the elementary schools. Lab experience revolves around methods of presenting movement education in the primary grades and the use of games, self-testing activities, rhythmic and innovative devices in helping to meet general and specific objectives in the intermediate grades. Designed for elementary education majors.

**HPER 0275 — Community Health Programs (4)**

Institutional frameworks for promoting and maintaining health of the people in community, state and nation.

**HPER 0280 — Safety Education (4)**

Preparation for assuming responsibility for programs of safety education and accident prevention in schools, industry and public services.

**HPER 0281 — Administration of Intramural Athletics (4)**

Prereq. Ed. & P.E. Majors/Minors.  
Organizing and administering a program of intramural sports of all age levels. Designed especially for elementary and secondary teachers.

**HPER 0290 — The Art of Sport Officiating (2)**

Prereq. P.E. Majors.  
Provides a meaningful, educational experience of a practical nature in the area of sport officiating.

**HPER 0295 — Independent Study (2)**

Prereq. P.E. Majors.  
Study, observation and research in selected physical education fields. Under the direction of HPER faculty member.

## HISTORY

**Hist 0101 — Western Civilization in Modern Times: Renaissance to 1648 (4)**

Renaissance; Reformation; origins of national state system; diplomacy and imperialism as applied to Portugal, Spain, and Hapsburg Empires; commercial and scientific revolutions.

**Hist 0102 — Western Civilization in Modern Times: 1648-1848 (4)**

Absolutism, constitutionalism, operation of coalition diplomacy and imperialism as applied to France and Britain; westernization of eastern Europe; enlightenment; French Revolution; agricultural, commercial and industrial revolutions; growth of the ideologies of liberalism, socialism and nationalism.

**Hist 0103 — Western Civilization in Modern Times: 1848 to the Present (4)**

Spread of liberalism, socialism and nationalism; rise and fall of Germany bid for power in 2 world wars; new ideologies of Social Darwinism and totalitarianism; Russian and Chinese revolutions and international communism; rise and fall of western empires in Africa and Asia.

**Hist 0111 — American History to 1828 (4)**

Exploration and colonization; political, social and economic life of the English colonies to 1763; struggle for independence; constitutional development and the Federalist era; Jeffersonian democracy and the War of 1812; rise of Jackson.

**Hist 0112 — American History, 1828-1900 (4)**

Jacksonian democracy; territorial expansion; growth of sectionalism; Civil War; reconstruction; impact of expanded Industrial Revolution.

**Hist 0113 — American History Since 1900 (4)**

Progressive movement, WW I; Republican prosperity; the Great Depression and the New Deal; WW II and problems of the cold war era; turmoil and reform in the 1960's.

**Hist 0121 — Origins of Western Civilization (4)**

Birth of civilization in Near East; culture of Greece and Rome; establishment of Christianity; formation of medieval European states. Emphasis upon cultural contributions of these earlier societies to modern western civilization.

**Hist 0201 — America in Transition: 1763-1801 (3)**

Political, social and diplomatic aspects of the American Revolution; Articles of Confederation; creation of a new nation in the administrations of Washington and Adams.

**Hist 0220 — History of American Foreign Policy (3)**

Overview of American Foreign relations since 1776: the revolution; neutral rights and Napoleonic Wars; isolation and territorial expansion; Far Eastern Policy; Caribbean imperialism; WW I; Republican isolationism; New Deal neutrality; WW II; rise and "fall" of the cold war.

**Hist 0290 — Topics in American History (3)**

This course will provide students and instructors the opportunity to explore topics of special interest to them. Requirements may include research papers, historiographical essays, media projects, etc.

**HUMANITIES****Humn 0101 — Tradition of Great Books (4)**

Prereq. Fr. or Soph.  
Classics of ancient Greek, Roman and Hebrew are studied to give an understanding of western European cultural heritage. There is discussion, practice in critical thinking and in reading and writing about these great works.

**Humn 0102 — Tradition of Great Books (4)**

Prereq. Fr. or Soph.  
Classics studied are from the ancient world, the middle ages, the age of reason, and the Romantic period. See 101 for further description.

**Humn 0103 — Tradition of Great Books (4)**

Prereq. Fr. or Soph.  
Classics of the ancient world, the middle ages and writings of more recent times including the present are studied. See 101 for further details.

**JOURNALISM****Jour 0105 — Introduction to Mass Communication (4)**

All the forms of mass communication including newspapers, magazines, radio-television, book publishing, public relations, advertising and photojournalism. Begins with an analysis of communication process and ends with media career opportunities.

**Jour 0231 — News Reporting (4)**

Prereq. Typing proficiency, passage of English proficiency test.  
Methods of gathering and evaluating news and writing typical news stories. Practice work covering assignments and preparing copy.

**Jour 0250 — Advertising Principles (5)**

Prereq. Advertising and PR majors or permission. Major factors in development of advertising programs.

**LINGUISTICS****Ling 0270 — The Nature of Language (5)**

Nontechnical investigation into basic nature of human language.

**MATHEMATICS****Three Track System in Mathematics for Engineering Technology Students**

The math sequence for engineering technology students who haven't had high school algebra or with a low ACT score in mathematics should take Math 0091 to give him background for the required sequence of Math 0130, 0131, and 0132. A student with high school algebra and geometry and an average ACT score in mathematics should take Math 0130, 0131, and 0132. A student with three or four years of high school mathematics and an ACT score above the 75th percentile of the national norm may have prerequisites for Math 0130, 0131, 0132, or 0201 waived, with the approval of the math department, and start at the level appropriate for him.

**Math 0100 — Math Appreciation (4)**

A course for students who do not need mathematics as a tool. Its purpose is to foster an appreciation of mathematics through involvement in areas of mathematics not ordinarily covered in more rigorous courses. Brain teasers, probability, topology, mathematics in art and history are possible topics, but topics may vary with the instructor.  
\*Check transferability of credit.

**Math 0101 — Basic Algebra (4)**

Fundamentals of basic algebra. A study of the properties of integers, polynomials, factoring, rational expressions, exponents, radicals, functions and graphs. Solving first degree equations in an unknown, with applications.

**Math 0105 — Business Math I (4)**

Proficiency in the fundamental skills of mathematics as applied to business. Payroll procedures, business and financial reports, presentation of business data and computing of interest for money and banking.

**Math 0106 — Business Statistics (4)**

Prereq. Math 0101 or 0111.

Basic techniques relating to organization of business and economic data and derivation of calculations therefrom. Analysis and interpretation of the results of statistical summaries, comparisons, etc. Uses of averages, relatives and dispersion; tests relating to significance, probability, sampling, and quality control applications of statistics.

**Math 0108 — Allied Health Math I (4)**

Exponents and logarithms; use of the slide rule; basic algebra; linear equations in one unknown; graphing linear equations; right triangle trigonometry.

**Math 0109 — Allied Health Math II (4)**

Prereq. Allied Health Math I.

Ratios and proportions; progressions; quadratic equations; graphing quadratic functions; use of programmable calculator; basic statistical concepts.

**Math 0111 — Data Math I (4)**

Systems of numerations; concepts of logic; basic algebra; solving equations and inequalities; business applications; introduction to programming (desk calculator).

**Math 0112 — Data Math II (4)**

Prereq. Data Math I.

Basic algebra; solving simultaneous equations by graphing; approximation; floating point arithmetic; iteration; matrices; boolean algebra.

**Math 0120 — Elementary Topics in Math I (5)**

Prereq. 2 yrs. h.s. math.

Sets; concepts of logic; mathematical systems; systems of numeration; basic ideas about integers, rational numbers and real numbers.

**Math 0121 — Elementary Topics in Math II (5)**

Prereq. 2 yrs. h.s. math.

Basic algebraic work with equations and inequalities in one and two unknowns; nonmetric and metric geometry; coordinate geometry; introduction to statistics and probability.

**Math 0130 — College Algebra I (4)**

Prereq. Mastery of at least 1 year of h.s. algebra or Basic Algebra Integers; Powers of Ten; Scientific Notation; Review of Algebraic Expressions and Operations; Dimensional Analysis; Linear Equations in one and two variables, including graphing; Exponents and Radicals; Right Triangle Trigonometry; Law of Sines and Law of Cosines Applications; Basic Properties of Vectors.

**Math 0131 — College Algebra II (4)**

Prereq. Mastery of Algebra I or equivalent

Quadratic Equations, one unknown; Graphing Quadratic Equations, Identification and Approximation of Roots; Exponentials and Logarithms; Binomial Expressions and Progressions; The  $j$ -operator Vectors; Review Oblique Triangle Solutions.

**Math 0132 — Trigonometry and Analytic Geometry (4)**

Prereq. Mastery of Algebra II or h.s. equivalent.

Solving inequalities, linear and quadratic; Graphing Trigonometric Functions; Polar Coordinates; Trigonometric Identities; Trigonometric Equations; A study of the basic properties of the conic sections.

**Math 0150 — Elementary Statistics for the Social and Behavioral Sciences (4)**

Prereq. 3 yrs. of h.s. math or Algebra I *and* either Govt. 101, Psy. 101, or Soc. 101. (Not for mathematic majors). Treatment and presentation of quantitative social and behavioral data: measures of central tendency; data distribution; association and correlation; sampling; estimations; and simple tests of significance.

**Math 0201 — Calculus I (5)**

Prerequisites: 4 years of high school math (including trigonometry), or Math 130, Math 131 and Math 132.

Functions and graphs; simple sequences; limits; differentiation and integration of algebraic functions; mean-value theorem; maxima and minima.

**Math 0202 — Calculus II (5)**

Prereq: Calculus I

Differentiation and integration of logarithmic, exponential, trigonometric and hyperbolic functions; techniques of integration; applications of the definite integral; L'Hospital's rule; improper integrals.

**Math 0203 — Calculus III (5)**

Prereq: Calculus II

Sequences and series; Taylor series; vectors; vector calculus; functions of several variables; partial derivatives; gradients; multiple integrals.

## MEDICAL LABORATORY

### MLTc 0102 — Medical Microbiology (4)

Prereq. Microbiology Biol 235

Students are expected to interpret and identify the majority of the organisms and procedures performed in this section. Emphasis of the course will include interpretation and knowledge which will enable the student to become proficient at standard techniques in pathogen identification. Emphasis will be placed upon specialized methods such as concentration of mycobacteria, blood cultures, antibiotic, sensitivity tests and anaerobic techniques. Protozoological helminthological, as well as the mycological studies, will be stressed.

### MLTc 0111 — Medical Technology Orientation (2)

To introduce the student to the hospital, Laboratory and various Laboratory personnel. Medical terminology associated with the Medical Laboratory field. Theory and technique in skills such as the use of basic instruments, centrifuges, balances, pipets. Preparation of solutions. Laboratory safety and bookkeeping will be emphasized.

### MLTc 0120 — Hematology I (4)

Student gains the basic techniques of the common routine hematological evaluations. The origin and formation of blood cells, including demonstrations of formed elements of blood in their normal and abnormal stages are studied. Differential morphology staining qualities, recognition are stressed. Techniques of red, white, and platelet counts are discussed and practiced. Different methods of hemoglobin determinations are reviewed and applied.

### MLTc 0121 — Hematology II (4)

Prereq. Hematology I.

The primary purpose is the qualitative and quantitative evaluation of the cellular elements of the blood in addition to coagulation studies. This includes the study and practice of such procedures as prothrombin time, partial thromoplastin time, bleeding and coagulation time. Serum prothrombin consumption is discussed. Diseases including anemias, leukemias, and hemoglobinopathy will be presented.

### MLTc 0201 — Urinalysis (3)

Chemical and microscopic examination of urine. Qualitative and quantitative Laboratory procedures for urine. The theory and application of the kidney tests.

### MLTc 0202 — Immuno-Serology (4)

Prereq. Microbiology Biol 235

Medical laboratory technician student has a limited knowledge of immunology and serology. This section is designed to introduce the student to basic fundamentals of antigen-antibody reactions, and then allow the student to apply these fundamentals in the serological procedures performed in the clinical laboratory. The student must become familiar with, and proficient in, a variety of procedures including syphilis serology, latex procedures, pregnancy tests, and other clinical immunological procedures.

### MLTc 0203 — Blood Banking (4)

Basic theory including the Mendelian Laws, genotypes and phenotypes is discussed. Collection and processing of blood is stressed. Instruction and practice in typing and cross-matching are given. Tritation procedures, discussion of a typical antibody and similar techniques are related to the recognition of incompatibilities. This part of the program will be spent in the teaching laboratory in order for the student to develop accurate techniques outside of a clinical setting to gain speed and proficiency.

### MLTc 0204 — Medical Laboratory Internship (13)

Two quarters of internship providing a practical application of the skills and abilities learned during the previous six quarters of the curriculum. The students are assigned to an accredited hospital laboratory as a trainee.

### MLTc 0205 — Special Probes in Medical Laboratory (2)

During the internship period, the student will keep a monthly log indicating scope and degree of activity in the laboratory. A copy of this work will be filed with the hospital and a copy with the college. A problem of special interest to the student, requiring library and/or laboratory study will be selected by the student and the faculty coordinator.

### MLTc 0211 — Clinical Chemistry I (4)

In fundamental laboratory methods the student develops a theoretical and practical knowledge of basic skills applicable to clinical chemistry. During this section the student learns to apply these skills, and at the same time learns certain variations of these skills and knowledge for particular procedures in the clinical chemistry laboratory. The student participates in the preparation of solutions and reagents used in biological examinations. Colorimetry, photometry, gasometry, enzyme chemistry, flame photometry, and other clinical chemistry laboratory procedures are studied.

### MLTc 0212 — Clinical Chemistry II (4)

Prereq. Clinical Chemistry I.

Continued study of the medical applications of the topics presented in Clinical Chemistry I. The study of diagnostic isotopy, steroid determinations, and fluorometry will be introduced.

**MLTc 0213 — Parasitology (2)**

An introductory review of Medical Parasitology. Parasitism in Man. Host-parasite relationship. Transmission methods of control, diagnosis, and physiological aspects. 2 hours lecture and Laboratory combined. Laboratory work limited to study of prepared microscope slides, films, and 35 mm Kodachrome slides.

**MLTc 0214 — Mycology (2)**

An introductory review of the fungi of Medical interest and their diseases. Transmission, prevention and diagnosis. 2 hours lecture and Laboratory combined. Laboratory work limited to observation of Laboratory cultures, films and 35 mm Kodachrome slides.

**MLTc 0220 — Medical Technology Seminar (1)**

Student participation in areas such as ethics and responsibilities in the medical laboratory. Career and professional opportunities in the medical laboratory. Consideration of other allied health occupations, the value of research to laboratory sciences and management problems for the bench-side worker.

## MUSIC

**Musi 0120 — Introduction to Music Literature (2)**

Development of listening skills for understanding elements of musical style in historical perspective and significance of music as a fine art.

**Musi 0121 — Introduction to Baroque Music (2)**

Prereq. 120 or permission.

Study of selected works from Baroque style period through readings, scores, tapes and recordings.

**Musi 0122 — Introduction to Music of the Classical and Romantic Periods (2)**

Prereq. 120 or permission.

Study of selected works from the Classical and Romantic style periods through readings, tapes and recordings.

**Musi 0123 — Introduction to 20th Century Music (2)**

Prereq. 120 or permission.

Study of selected works of 20th Century, both traditional and electronic, through readings, scores, tapes, and recordings.

**Musi 0160 — Fundamentals of Music (3)**

Principles of notation, meter, major and minor scales, rhythmic and melodic reading, singing, and keyboard.

**Musi 0161 — Music for the Classroom Teacher (3)**

Prereq. Music Fund. with minimum grade of C.

Methods of teaching elementary music, with emphasis on singing, playing instruments, and rhythmic body movement.

**Musi 170 A,B,C — Class Voice (3 qtrs., 1 cr. hr. per qt.)**

Prereq. non-voice majors — Music Reading (must be taken in sequence or by permission).

Basic techniques of voice production; breathing, diction, projection, tone-color, and interpretation.

**Musi 0175 — Men's Glee Club (1)**

Prereq. Permission (audition) (3 lab hrs.)

**Musi 0176 — Women's Glee Club (1)**

Prereq. Permission (audition) (3 lab hrs.)

**Musi 0180 — College Chorus (2)**

Prereq. Permission (audition) (4 lab hrs.)

**Musi 0181 — College Band (2)**

Prereq. Permission (audition) (4 lab hrs.)

**Musi 0221 — History and Literature of Music (3)**

Prereq. 0123.

History of music with survey of musical literature to 1750. Emphasis on elements of Renaissance and Baroque styles.

**Musi 0222 — History and Literature of Music (3)**

Prereq. 0221.

Survey of musical literature from 1750 to 1900. Emphasis on elements of Classic and Romantic styles.

**Musi 0223 — History and Literature of Music (3)**

Prereq. 0222.

Survey of musical literature written since 1890. Emphasis on elements of impressionism, post-Romanticism, and Contemporary idiom.

**Musi 0230 — Music - Theater (3)**

Participation in selected musical theater projects. Participation may be through production or performance.

**Musi 0290A — Topics In Music (2)**

Study of various music topics otherwise not available to students: music and the emotions, folk and country music, rock forum, etc.

**Musi 0290B — Topics in Music (3)**

Study of various music topics otherwise not available to students: music and the emotions, folk and country music, rock forum, etc.

## **NURSING — ASSOCIATE DEGREE**

### **ADNr 0101 — Nursing I (8)**

This course introduces the student to the patient and his needs, especially in the hospital. The student learns how to help patients meet their needs in order to reach optimum wellness. To meet these needs, the student will learn beginning skills and attitudes needed by the professional technical nurse. Emphasis is placed on the importance of identifying deviations and using principles to guide nursing practice.

### **ADNr 0102 — Nursing II (7)**

The overall view of complete maternity care envisions an inclusive process which begins with supervision, care and assistance from the inception of pregnancy until the end of lactation or approximately one year after the birth of the baby. This view recognizes the tremendous importance of healthy mental attitudes toward parenthood and family life, the necessity of giving parents more facts about the emotional and social development of children and understands the vital role of supportive family relationships and constructive childrearing practices.

It emphasizes the preventive aspects of complete maternity care which is community based and correlates a multi-disciplinary approach to more adequately meet the total health needs of mother, child and family.

### **ADNr 0103 — Nursing III (7)**

This course provides learning experiences in caring for patients with common gynecological, genitourinary and gastrointestinal problems. Students will apply the nursing process and human needs concepts in developing, implementing and evaluating care plans for patients exhibiting medical and surgical conditions related to these systems.

### **ADNr 0201 — Nursing IV (7)**

This course provides learning experiences in utilizing the nursing process in developing, implementing and evaluating nursing care of people with insults to the body's regulatory systems (endocrine and nervous systems).

### **ADNr 0202 — Nursing V (7)**

This course emphasizes the promotion of mental health and the prevention of mental illness with individuals and families through the use of developmental task concepts and community resources. Students have the opportunity to work with patients in a psychiatric hospital setting.

### **ADNr 0203 — Nursing VI (7)**

### **ADNr 0204 — Nursing VII (7)**

These courses present the nursing care needs of persons having common medical-surgical conditions of the musculoskeletal and skin systems (Nursing VI) and cardiovascular and respiratory systems (Nursing VII). Students continue to use the nursing process in developing, implementing and evaluating the nursing care of people with these problems.

### **ADNr 0205 — Nursing VIII (14)**

This course provides learning experiences in basic concepts of team leadership and in utilizing the nursing process in caring for people with problems associated with eyes, ears, skin and blood. An opportunity is provided in obtaining learning experiences in advanced concepts of patient care such as infection control, CPR instructor's course, quality assurance and a variety of medical-surgical problems.

Each course utilizes the nursing process and Maslow's hierarchy of needs; each encompasses nutritional and emotional needs, pharmacology, human growth and development.

## **NURSING — PRACTICAL**

### **LPNr 0101 — Body Structure and Function (4)**

This course provides basic study of the structural organization and function of the body. Emphasis is on the interrelation of the systems. Anatomical charts and models are used.

### **LPNr 0110 — Nutrition (2)**

Prereq. LPNr 0101 & 0111.

Included are the sources and contributions of the various nutrients, the importance of nutrition in health, and the effects of cooking on the nutrients. Diet therapy is introduced by way of modifying a normal diet to meet specific dietary needs.

### **LPNr 0111 — Practical Nursing I (10)**

The course is concerned with the basic nursing principles and skills necessary for efficient patient care. Emphasis is on those needs common to man and on the maintenance of body functions.

### **LPNr 0112 — Practical Nursing II (6)**

Prereq. LPNr 0101 & 0111.

This course is a continuation of Practical Nursing I with additional units included to provide the complete basic fundamentals of skilled practical nursing. Observing, reporting and charting signs and symptoms are included. Nursing care of specific medical-surgical conditions is provided by clinical experience in Mercy Hospital.

### **LPNr 0113 — Practical Nursing III (8)**

Prereq. LPNr 0110, 0112, & 0115.

Medical-surgical nursing is the focus. Emphasis is on learning experiences in assessing, developing care plans and care studies, and caring for short-term and long-term patient situations involving cardiovascular, gynecological, genito-urinary, digestive, and skin and allergy conditions. Related, supervised clinical experience is provided in Mercy Hospital and includes giving medications.

**LPN 0114 — Practical Nursing IV (8)**

Prereq. LPN 0113 & 0116.

This course is a continuation of Practical Nursing III with emphasis on learning experiences in assessing, developing care plans and care studies, and caring for patient situations relating to conditions of the neurological system, eye and ear, endocrine and musculo-skeletal disorders. There are additional learning experiences in career opportunities, independent study, and development of judgmental concepts under the supervision of a faculty member. Clinical experience is provided in Mercy Hospital.

**LPN 0115 — Practical Nursing V (6)**

Prereq. LPN 0101 & 0111.

A study of the child in health and illness and the influence of the various factors contributing to growth and development. Experience is obtained at Mercy Hospital and by observation in the Pediatric Clinic, Happy Hearts School and Day Care Center.

**LPN 0116 — Practical Nursing VI (8)**

Prereq. LPN 0110, 0112, & 0115.

This is a course in maternal and newborn nursing. It includes study and care of the mother during pregnancy, the delivery and postpartum; and study and care of the newborn. Concurrent learning experience is provided in Scioto Memorial Hospital and by observation in the Prenatal Clinic.

**PARK AND RECREATION ADMINISTRATION****PRAD 0101 — Introduction to Recreation (3)**

A study of the general concepts of recreation including definitions, history, legal basis, current development, and present importance of recreation in our society. Management and Administration of Parks and Recreation organizations is also examined. Laboratory work introduces the students to a number of recreation experiences.

**PRAD 0102 — Soils Management (4)**

Prereq. or concurrent or permission of Instructor: Field Biology and Ecology.

This course is designed to introduce the concepts of soil, soil formation, and soil composition. Forces and types of erosion are discussed in detail with special emphasis placed upon erosion protective and corrective techniques. Land use capability analysis based upon soil data is presented as a technique to forecast potential management problems as they relate to Parks and Recreation.

**PRAD 0103 — Hydrology (3)**

Prereq. or concurrent or permission of Instructor: Soil Management. A detailed study of the hydrologic cycle and its many aspects along with the conservation of water and water resource development.

**PRAD 0104 — Taxonomy of Vertebrates (4)**

Prereq. or concurrent or permission of Instructor: Ecology.

A study of the classification, adaptations, and habitat requirements of the higher animals with particular emphasis on Ohio species. Field identification of mammals, birds, reptiles, amphibians, and fish will be emphasized in the lab.

**PRAD 0105 — Water Pollution & Sanitation (3)**

This course presents problems and concerns of water pollution. Sources of pollution, water sampling methods, waste water treatment, potable water sources and treatment, and short and long term effects of water pollution are topics of study.

**PRAD 0121 — Parks and Recreation Internship (6)**

Eleven weeks' supervised work experience. Supervisory visits by instructor. Weekly seminars for critique of experience. Weekly evaluation reports. 15 hours credit.

**PRAD 0201 — Outdoor Recreation (4)**

Prereq. or concurrent or permission of Instructor: Introduction to Recreation.

This course presents several aspects of outdoor recreation. Included in lecture material are concepts of feasibility, interpretation, and personal recreation equipment use and care. Laboratory exercises introduce the student, and improve his skills, in each of the areas of study.

**PRAD 0202 — Forestry and Forest Recreation (3)**

This two part course first investigates the development and the existing practice of modern forestry in the United States. Basic management practices are discussed with laboratory exercises designed to improve forest management skills. The second aspect of this course is to identify typical forest recreation facilities and discuss their operational elements.

**PRAD 0203 — Fiscal Operations (4)**

Efficient and effective money management is critically important to the successful operation of park and recreation areas. This course is designed to initiate the student to sound fiscal operation. Sources of funding, including grant applications, are fully discussed. Other areas of detailed study include budget preparation, budget implementation, and evaluation and accountability. Concessions and other sales elements are investigated.

**PRAD 0204 — Park Layout and Design (3)**

This course combines aspects of several other areas of study and investigates the interrelationships between sound natural resource management techniques and facility attractiveness and useability. Students are presented with problems of individual elements of park design. As each of these situations are resolved, the solutions form workable units in an overall park master plan. The final phase of this course is to combine those elements into a complete park layout.



**PRad 0205 — Water Recreation (4)**

Prereq. or concurrent or permission of Instructor: Introduction to Recreation & Outdoor Recreation.

Study of water-related recreational facilities such as marinas, swimming areas, and fishing. Consideration will be given to boating laws, operation, and safety and all forms of water recreation.

**PRad 0206 — Parks Protection (4)**

Prereq. or concurrent or permission of Instructor: Maintenance of Recreation Areas II and second year standing.

Crime is not isolated to ghetto environments but rather is common in all settings. Park areas seem especially prone to anti-social behavior and, as such, each student must be fully aware of the effects of crime in and around these park areas. This course rests heavily upon outside expertise in the areas of: alcohol and drug abuse, fire protection and control, jurisdictional constraints placed upon park enforcement officers, investigative procedures, game protection, vandalism, and legal liabilities. Other areas of discussion include philosophies and needs for protection, and designing against crime.

**PRad 0207 — Seminar (2)**

This course has been designed as flexible as possible to arouse individual interest in current events that affect the practice of N.R. management. An open-ended discussion of several issues encourages independent thought and investigation.

**PRad 0208 — Orientation to Employment (1)**

Prereq. second year standing.

Job application, resume writing, interviewing, and contact follow-up are techniques for securing employment that this course presents. Other elements presented include letter writing, job hunting strategies, and potential employers.

**PRad 0209 — Wildlife Management (3)**

Prereq. or concurrent: Taxonomy of Vertebrates.

A study of the ecological principles of the management of wild animals, both game and non-game species. The economic importance of wildlife and the role of various wildlife agencies will also be considered.

**PRad 0211 — Maintenance of Recreation Areas I (3)**

Maintenance of outdoor areas including park grounds, recreation areas, water areas, turf, trees, and pavement.

**PRad 0212 — Maintenance of Recreation Areas II (3)**

Prereq. or concurrent: Maintenance of Recreational Areas I.

Maintenance of park and recreation buildings, vehicles, and machinery, and sewage and water treatment facilities. Additional emphasis on employee safety and the development of a maintenance plan.

**PHARMACY****Phar 0101 — General Pharmacology (4)**

Introduction to the General principles of pharmacology. Calculations, drug classification, and the sites and mechanisms of drug action.

**PHILOSOPHY****Phil 0101 — Fundamentals (4)**

Survey of basic problems, concepts and methods in philosophy.

**Phil 0102 — Introduction to Logic (4)**

Use of evidence in establishing reliable conclusions.

**Phil 0103 — Moral Philosophy (4)**

Discussion of classic and/or modern philosophical views of human values, ideals and morality. Provides an introductory survey of some of the main problems, concepts and results of ethics including selected philosophies of past and present.

**PHYSICAL SCIENCE****PSci 0101 — Physical World (4)**

Designed for nonscience majors. Fundamental ideas of meteorology and geology. Topics in meteorology include atmosphere, winds, clouds, storms and weather. Topics in geology include rocks and minerals, gradation, earthquakes, continental drift and the ocean. 3 lec. 3 labs.

**PSci 0102 — Physical World (4)**

Prereq. 101 or equiv.

Designed for nonscience majors. Fundamental ideas of heat, nuclear physics, atomic physics and chemistry. Topics in chemistry include classification of elements, molecules, chemical reactions, solutions and large molecules, including plastics and DNA. 3 lec. 3 labs.

**PSci 0103 — Physical World (4)**

Prereq. 101 or equiv.

Designed for nonscience majors. Fundamental ideas of measurement, motion, energy, sound, light, electricity, and magnetism and astronomy. Topics in astronomy include solar system, time, moon phases, tides, eclipses, sun and galaxies. 3 lec. 3 labs.

**PSci — 0105 — Physical Science (5)**

A course designed for students of nursing and other health technologies, stressing the principles of physics and chemistry relevant to the health sciences. Meaningful applications in common experiences also are noted, so that the course should be worthwhile for students in other fields who would like a health-science emphasis. 4 lec. 3 lab.

## PHYSICS

### Phys 0100 — Physics (Basic) (5)

A study of the more important principles of mechanics, heat, light, sound, and electricity. Problem solving and qualitative description of physical principles. Lectures and laboratory demonstrations. 4 lec. 3 labs.

### Phys 0201 — Physics (Mechanics) (4)

Prereq. Math 0130 or Math 0108 or equiv.

Basic measuring systems, methods and conversions and calculations for physics. Properties of solids, liquids, and gases. Statics and motion. Friction. Work, power, and energy. Simple machines. Laboratory and demonstrations related to lecture. 3 lec. 3 labs.

### Phys 0202 — Physics (Electricity) (4)

Prereq. Physics 0201.

An introduction to electrical circuitry with emphasis on the concepts of electrical physics. The nature of magnetism and electrostatics, electrical units. Basic direct-current circuits, Ohm's law, electrical measurement. Sources and effects of electrical current, cells. Electric power and energy. Electromagnetism and electromagnetic induction. Properties of alternating current, simple A-C circuits. Generators and motors. 3 lec. 3 labs.

### Phys 0203 — Physics (Heat, Light, Sound) (4)

Prereq. Physics 0201.

Fundamental properties and basic principles of heat, light and sound. 3 lec. 3 labs.

## PLANT MAINTENANCE

### PMnt 0101 — DC Circuits and Machines (4)

An introduction to electricity. Course content includes resistance, voltage, current, Ohm's Law, series and parallel circuits, magnetism, meters, power, inductance, and capacitance. DC motors and generators are also studied.

### PMnt 0102 — AC Circuits and Machines (4)

Prereq. DC Circuits and Machines.

Basic R-L, R-C transient circuits are initially studied. Alternating current fundamentals, AC circuit analysis, power factor and AC power, and AC machines comprise the major content of the course.

### PMnt 0111 — Industrial Electronics (4)

This course is designed to familiarize the student with industrial electronic circuits and includes bipolar electronic devices, amplifiers, DC power supplies, and integrated circuits.

### PMnt 0201 — Instrumentation Electronics (5)

This course is designed to familiarize the student with the electronic equipment and devices found in electronic instrumentation. It usually includes grid-controlled rectifiers, nuclear particles, radiation detectors, radiation detector characteristics, high voltage power supplies, commercial scalars, input and output transducers, recording devices, ultrasonics, mechanical linkages, synchros, position detectors and controls, carrier current transmission, telemetering and remote control.

### PMnt 0211 — Fluid Mechanics I (4)

This course acquaints the student with the physical properties of gases and liquids and their behavior under various conditions. It includes atmospheric pressure; intensity of pressure; energy of liquids; properties of gases and liquids; various laws and principles governing gases and liquids; and pneumatic and hydraulic machines and devices.

### PMnt 0212 — Fluid Mechanics II (4)

This is a continuation of Fluid Mechanics I and stresses the application of working formulas such as the Bernoulli and momentum equations as they relate to the physical properties of gases and liquids; the flow of fluid in pipes; the measurement of fluid flow; the multiplication of fluid force; and the calculation of pipe sizes, pressures developed, and pump deliveries.

### PMnt 0221 — Instrument Fundamentals I (7)

This course is designed to provide the student with a basic knowledge of instruments. It includes an introduction to the field of work; shop and industrial safety practices; instrument cleaning and lubricating; care and use of small hand and power tools; soldering techniques; instrument charts; and types of instruments used in industry.

### PMnt 0222 — Instrument Fundamentals II (7)

This is a continuation of Instrument Fundamentals I. It includes reading and interpreting instrumentation drawings; fundamentals of measurement and control devices; final control elements; and an introduction to standards and calibration.

### PMnt 0223 — Measurement Principles (4)

This course introduces the student to industrial methods for measuring pressure and temperature with various types of gauges and other devices. It includes the basic theory of operation, construction, installation, normal care and handling, operational checks and calibration of gauges, manometers, and nonelectric thermometers.

### PMnt 0224 — Industrial Control (4)

The student is introduced to basic industrial control circuits and schemes. The course includes pneumatic, hydraulic, electrical, and electronic control.

## PLASTICS/CHEMICAL

### PEng 0101 — Introduction to Plastics/Chemical (3)

Covers a description of the different plastics, beginning with a brief outline of polymer chemistry. Discussion will cover different types of plastic, identification tests, polymerization, molecular growth, and molecular weight. Laboratory experiences in extrusion, injection molding, thermoforming, compression molding, and other fabrication operations. Introduction to test methods.

### PEng 0102 — Machine Tools I (2)

Safety, measuring tools, bench work, drill press, lathe, forge work, shaper, planer, milling machine, grinding machine, hydraulic power transmission, metal band saws, properties and uses of ferrous and non-ferrous alloys, cutting fluids, welding and foundry practices.

### PEng 0103 — Extrusion Molding (3)

Prereq. PEng 0101 or advisor approval.

Techniques of plastics extrusion operations and blow molding: Pipe, sheet, film blowing, extrusion coating, wire and cable covering, thread (monofilaments), bottle blow molding. Laboratory involves operating extrusion equipment and blow molding equipment.

### PEng 0104 — Thermo-Forming (3)

Prereq. PEng 0101 or advisor approval.

Discussion will cover thermo-forming processes and thermo-forming equipment. Thermo-forming will be introduced with special emphasis on vacuum-forming equipment and processes. Characteristics of common plastics used in thermo-forming. Numerous laboratory projects.

### PEng 0105 — Injection Molding (3)

Prereq. PEng 0101 or advisor approval.

Techniques of injection molding processes, compression molding, and rotational molding. Mold design. Laboratory operation of injection molding equipment, rotational molding equipment, and compression molding equipment. Design and fabrication of molds.

### PEng 0201 — Plastic Finishing (4)

Prereq. PEng 0101 or advisor approval.

Areas covered include printing, cementing, electroplating, vacuum metalizing, hot stamping, polishing, engraving, welding, sanding, drilling, casting resins and foam processes (polyurethane and polystyrene). Laboratory covers the practical applications of the lecture material.

### PEng 0202 — Production Control and Planning (4)

Basic concepts of production planning and control methods. Inventory planning, facilities design, capacity considerations. Actual planning and scheduling exercises on an individual basis.

### PEng 0203 — Testing of Plastic Materials (3)

Prereq. Math 0131.

Study is made of the mechanical, electrical, optical, and environmental characteristics of different plastics, impact testing, chemical testing, heat stability testing, hardness testing, and electrical testing. Conducting experiments and writing of technical reports on the property changes of plastics under various conditions. Statistical quality control methods as related to testing.

### PEng 0204 — Industrial Economics (4)

An introduction to economic principles as applied to plant operation. Equipment sizing, costing, return on investment, depreciation of buildings and equipment, venture analysis, product costing, cost accounting and related financial statements.

### PEng 0205 — Plant Layout and Materials Handling (3)

Prereq. EnDr 0101.

Principles of plant layout to obtain the most effective utilization of men, materials, and machines, as related to space and cost. Selection and use of modern equipment and methods for handling materials in industrial processes.

### PEng 0206 — Introduction to Chemical Engineering (3)

Prereq. Chem 0121 and Math 0131.

Introduction to the practices of chemical engineering. Stoichiometry, heat and material balances, heat, mass, and momentum transfer. Industrial problems and applications.

### PEng 0207 — Fundamentals of Processing Equipment and Maintenance (2)

Piping diagrams, heat exchangers, reactors, etc., commonly used in the chemical industry. Emphasis on maintenance problems and methods.

### PEng 0209 — Fabrication and Manufacturing of Plastic Products (4)

Prereq. PEng 0101, 0103, 0104, and 0105.

Review of industrial manufacturing methods for plastics products. Survey of the technical literature and projects related to new techniques in manufacturing. Emphasis on fiber-reinforced plastics and products.

### PEng 0210 — Properties of Materials (4)

Prereq. Chem 0122 and Math 0131.

Study of various plastics with special emphasis on fitting the proper plastic to the correct end use. Problems will be introduced requiring the practical use of the theory developed in lecture. Properties such as ability to wield, decorate, and form (extrusion, injection, thermoforming) will be discussed.

## PSYCHOLOGY

### Psyc 0100 — Learning Orientation (4)

The course will employ the use of mnemonic and associative techniques to teach students various types of information. (The 4 hours of credit do not apply toward the associate degree, but do apply toward total hours accumulated at the college).

### Psyc 0101 — Principles of Psychology (4)

Introduction to psychology. A study of the individual in terms of maturational, learning, thinking, emotional, motivational, sensory and perceptual processes.

### Psyc 0131 — Human Adjustment (3)

Prereq. Psyc 0101.

A consideration of conflicts and problems of adjustment in modern society.

### Psyc 0173 — Human Growth and Development (4)

Prereq. Psyc 0101.

A study of the factors affecting human growth and development through the life cycle.

### Psyc 0226 — Experimental Psychology (5)

Prereq. Psyc 0101 and Math 0150

Training in scientific methods and techniques of modern experimental psychology with individual reports of laboratory experiments.

### Psyc 0241 — Behavioral Measurement (5)

Prereq. Psyc 0101 and Math 0150.

Testing and measurement; basic criteria including objectivity, reliability, validity. Methods of test construction and validation, including questionnaire construction.

### Psyc 0261 — Industrial Psychology (5)

Prereq. Psyc 0101 and Math 0150.

Applications of psychology in business and industry.

### Psyc 0270 — Abnormal Psychology (5)

Behavior disorders, their cause and effects on person, family and society.

### Psyc 0275 — Educational Psychology (5)

Prereq. Psyc 0101.

Psychological foundations of education, with emphasis upon learning, transfer, motivation, and evaluation.

### Psyc 0290A — Independent Study in Psychology (1)

### Psyc 0290B — Independent Study in Psychology (2)

### Psyc 0290C — Independent Study in Psychology (3)

Prereq. Permission of instructor is required.

Problems of special interest to the student are investigated under the direction of the psychology staff. This course is open only to second year students who have accumulated a 3.000 average. This course may be repeated once but not to exceed a total of six credit hours.

## QUANTITATIVE METHODS

### QMet 0200 — Introduction to Business Data Processing (4)

Prereq. Math 0201 and 0202.

Role of computer in a business environment. Introductory study of equipment, applications, flow charting and FORTRAN program language. Concepts of random variables and probability distributions.

### QMet 0201 — Introduction to Probabilities and Statistics (4)

Prereq. 0200.

Theoretical distributions, sampling, estimation (point and interval), hypothesis testing, simple regression and correlation.

## RADIOLOGIC (X-RAY)

### RdIT 0101 — Radiologic Technology I (2)

This course concentrates on the following requirements of the American Medical Association: Orientation and elementary radiation protection, professional ethics, office procedures, medical terminology, film critique, and radiographic positioning.

### RdIT 0102 — Radiologic Technology II (2)

This course concentrates on the following requirements of the American Medical Association: Radiologic terminology, principles of radiographic exposure, film critique, and radiographic positioning.

### RdIT 0103 — Radiologic Technology III (3)

This course concentrates on the following requirements of the American Medical Association: Radiographic positioning, principles of radiographic exposure, nursing procedures pertaining to radiology, pediatric radiography, and film critique.

### RdIT 0104 — Radiologic Technology IV (3)

This course concentrates on the following requirements of the American Medical Association: Common radiographic procedures using contrast media, radiographic practices for surgery, topographic anatomy, radiographic positioning, and film critique.

**RdIT 0105 — Radiologic Technology V (4)**

This course concentrates on the following requirements of the American Medical Association: Darkroom chemistry and technique, radiographic positioning, special radiographic procedures, and film critique.

**RdIT 0106 — Radiologic Technology VI (4)**

This course concentrates on the following requirements of the American Medical Association: Special radiographic procedures, radiographic positioning, use of contrast media, and film critique.

**RdIT 0107 — Radiologic Technology VII (4)**

This course concentrates on the following requirements of the American Medical Association: Radiographic positioning, principles of radiographic exposure, departmental administration, and film critique.

**RdIT 0108 — Radiologic Technology VIII (4)**

This course concentrates on the following requirements of the American Medical Association: Equipment maintenance, general review, and film critique.

**RdIT 0111 — Physics (Radiologic) (4)**

A study of the fundamental methods of x-ray generation and its relationship to radiation protection in radiology, production and control of high voltage, electrical hazards, methods of rectification, with special emphasis on modern x-ray tubes, three-phase generators, basic x-ray circuits, x-ray dosimetry, fluoroscopy, and image intensifiers.

**RdIT 0200 — Basic Patient Care (4)**

The content of this course is selected to provide the student in the allied health curricula with a knowledge of the primary aspects of basic care of the ill.

**RdIT 0201 — Radiographic Exposure I (3)**

Lectures on establishing and manipulating radiographic exposure factors and on the proper utilization of accessory devices such as grids, intensifying screens, and beam limitation devices. The concentration is on overall image quality, as well as factors affecting patient exposure.

**Rd1T 0211 — Practicum I (2)**

Supervised sessions emphasizing the practical application of theory. Students will be scheduled a minimum of 16 clock hours each week for hospital-based clinical education.

**Rd1T 0212 — Practicum II (2)**

Prereq. 0211

Supervised sessions emphasizing the practical application of theory. Students will be scheduled a minimum of 16 clock hours each week for hospital-based clinical education.

**Rd1T 0213 — Practicum III (6)**

Prereq. 0212

Supervised sessions emphasizing the practical application of theory. Students will be scheduled a minimum of 32 clock hours each week for hospital-based clinical education.

**RdIT 0214 — Practicum IV (6)**

Prereq. 0213

Supervised sessions emphasizing the practical application of theory. Students will be scheduled a minimum of 32 clock hours each week for hospital-based clinical education.

**Rd1T 0215 — Practicum V (4)**

Prereq. 0214

Supervised sessions emphasizing the practical application of theory. Students will be scheduled a minimum of 24 clock hours each week for hospital-based clinical education.

**Rd1T 0216 — Practicum VI (4)**

Prereq. 0215

Supervised sessions emphasizing the practical application of theory. Students will be scheduled a minimum of 24 clock hours each week for hospital-based clinical education.

**RdIT 0221 — Seminar I (2)**

Student participation in areas such as ethics and responsibilities in the Radiology Department. Consideration of other allied health occupations, the value of research to radiation sciences, and management problems for the technicians. A problem of special interest requiring library and/or clinical study will be selected by the student and the faculty coordinator.

**RdIT 0222 — Seminar II (2)**

Student participation in areas such as ethics and responsibilities in the Radiology Department. Consideration of other allied health occupations, the value of research to radiation sciences, and management problems for the technicians. A problem of special interest requiring library and/or clinical study will be selected by the student and the faculty coordinator.

**RdIT 0223 — Seminar III (2)**

Student participation in areas such as ethics and responsibilities in the Radiology Department. Consideration of other allied health occupations, the value of research to radiation sciences, and management problems for the technicians. A problem of special interest requiring library and/or clinical study will be selected by the student and the faculty coordinator.

#### **RdIT 0224 — Seminar IV (2)**

Student participation in areas such as ethics and responsibilities in the Radiology Department. Consideration of other allied health occupations, the value of research to radiation sciences, and management problems for the technicians. A problem of special interest requiring library and/or clinical study will be selected by the Student and the faculty coordinator.

### **REAL ESTATE COURSES**

#### **BaFT 0210 — Real Estate Principles and Practices (4)**

A basic course designed as an introduction to real estate economics and administration to develop professional real estate personnel and to promote an opportunity for those not in the real estate business to obtain basic knowledge about real estate for their own benefit in handling real estate problems.

The course covers the elementary physical, legal, locational and economical characteristics of real estate; real estate markets; and national, regional and local economic influences on real estate values. It also provides a foundation for further study and serves as a preparation for securing a license.

#### **BaFT 0211 — Real Estate Brokerage (4)**

A basic course in real estate economics, brokerage and administration, designed for the professional development of real estate personnel and to serve those who are not in the real estate business but desire to learn about real estate for their general knowledge and private business arrangements.

This course covers property ownership and rights, real estate brokerage and construction, marketing, and production, land development and construction of buildings, and effects of marketing and production systems in our economy.

#### **BaFT 0212 — Real Estate Law (4)**

Real Estate Law includes all of the areas of law comm. concerned with the typical real estate practitioner and investor-consumer.

Among topics covered in this course is the law of agency as applied to real estate brokers and salesmen, law of fixtures, estates (including leases), conveyancing of real estate, real estate managers, license laws of Ohio, zoning, cooperatives and condominiums.

#### **BaFT 0213 — Real Estate Finance (4)**

Real Estate Finance includes information concerning the institutions, methods, instruments and procedures involved in the financing of real estate.

It includes the nature and characteristics of the mortgage loans, government influence on real estate finance, and the nature of the mortgage market. Effects of monetary and fiscal policies on real estate financing are considered.

#### **BaFT 0214 — Real Estate Appraisal (4)**

The course in Real Estate Appraisal stresses the methodology of appraising urban real property and the theory underlying appraisal techniques.

The three basic techniques of appraising . . . market comparison, penalized cost of replacement, and income capitalization, are covered in depth.

A term project is assigned to give the student practical experience in applying these techniques.

#### **BaFT 0215 — Special Topics or Seminar in Real Estate (4)**

Special Topics or Seminar in Real Estate (title may vary from institution to institution) includes areas requiring specialized knowledge such as taxation, investment analysis, industrial real estate, commercial real estate, and other types of income producing property. Current issues and problems facing the real estate business are also considered.

This course should be offered to those persons who have previously completed the necessary basic courses.

This course is designed to cover specialized material not covered in the other five courses as well as the current real estate market, legislative activities, and long range planning for the future of real estate.

Recommended prerequisites for this course are: Principles and Practices I & II, Real Estate Law, Real Estate Finance, Real Estate Appraisal.

#### **Real Estate Salesman's Program**

Persons wishing to take the Ohio examination for real estate salesmen must first successfully complete Real Estate Principles and Practices and Real Estate Law. Both of these courses are offered at Shawnee State.

### **RESPIRATORY THERAPY**

#### **RpTT 0101 — Introduction to Respiratory Therapy (2)**

An introduction to respiratory therapy including discussion of the role of respiratory therapy in current medical practice and duties, responsibilities and professional liabilities of the technician. Field trips to the clinical facilities will be included to cover respiratory therapy department structure and administration. Also, a review of professional organization and education opportunities will be incorporated.

#### **RpTT 0102 — Introduction to Respiratory Therapy Equipment (3)**

A study of the apparatus utilized in providing respiratory care, including gas cylinders, regulators, flowmeters and indexing systems. Also to include disposable and reuseable humidifiers and nebulizers.

#### **RpTT 0111 — Clinical Practice I (6)**

An introduction in a clinical setting for the Respiratory Therapy Technician. Instruction in and practical application of procedures and equipment including safe storage and handling of medical gases, oxygen administration, humidification and aerosols.

**RpTT 0112 — Clinical Practice II (6)**

A continuation of Clinical Practice I giving further attention in a clinical setting to application of cardio-pulmonary resuscitation, airway management, intermittent positive pressure breathing and cardio-respiratory drugs.

**RpTT 0113 — Clinical Practice III (6)**

Theory review and practical application of procedures related to continuous ventilation and respiratory care of the critically ill patient.

**RpTT 0114 — Clinical Practice IV (6)**

A continuation of Clinical Practice III with emphasis on alternatives to intermittent positive pressure breathing, pulmonary rehabilitation and pulmonary function testing.

**RpTT 0121 — Cardio-pulmonary Physiology (4)**

A study of the physiology of the cardiovascular and pulmonary systems involving mechanics of breathing, control of respiration, respiration of alveolar gases and blood gases. A survey of pathology including hypoxia, airway obstruction, pulmonary distention, ventilation-perfusion imbalance and pulmonary restriction.

**RpTT 0201 — Clinical Specialties (4)**

A study of respiratory therapy applications in medical practice, including pathology in internal medicine, neurology, surgery, pediatrics and obstetrics emphasizing the role of the respiratory technician as a member of the specialized health care team.

**RpTT 0202 — Pharmacology for Respiratory Therapy (4)**

A study of the general principles of pharmacology including drug types, dispensing, dosage, effects including contraindications and regulations. Drug groups related to respiratory therapy will be emphasized to include bronchodilators, wetting agents, detergents, mucolytics, proteolytics, antibiotics and steroids.

**RpTT 0211 — Respiratory Therapy Procedures I (3)**

A discussion of airway management, cardio-pulmonary resuscitation, intermittent positive pressure breathing and chest physiotherapy.

**RpTT 0212 — Respiratory Procedures II (3)**

A study of the principles and practices of intensive respiratory care including cardio-pulmonary emergencies, continuous ventilation and blood gas analysis. Included is a survey of various ventilation techniques and weaning from mechanical ventilation procedures.

## RETAIL MARKETING MANAGEMENT

**RMMT 0101 — Introduction to Business (3)**

A survey course of the basic functions of American business, with an emphasis upon the responsibility of businesses as a vital segment of society. The course introduces the American economic system and the role of profits as the motivating force behind U.S. business activity. Case problems and supplementary readings provide exposure to divergent opinion about the subject of business.

**RMMT 0102 — Marketing (4)**

A study of marketing fundamentals, consumption and consumer behavior, retailing and wholesaling structures; and the functions performed in marketing, marketing policies and a critical appraisal of the field of marketing.

**RMMT 0103 — Introduction to Retailing (4)**

Principles and methods of retail management, including organization, policy making, location, operation, selling services, records, inventory, expense control, insurance and the coordination of a store.

**RMMT 0104 — Salesmanship (3)**

A course structured to acquaint the student with the basic concepts of personal selling at both the industrial and retail level including preparation for selling, sales processes, and an introduction to sales management. Emphasis on retail selling. Students are made aware of the wide variety of careers open to them in retail selling.

**RMMT 0223 — Retail Buying (4)**

Prereq. Marketing or permission of instructor.  
This course will provide a basic understanding of the retail buyer's responsibilities and functions and create an awareness of the complexity of the buyer's job. In addition, the course will provide the student with actual opportunity to acquire some of the basic skills that are used by the retail buyer in determining demand, purchasing, choosing sources and negotiating, and pricing.

**RMMT 0225 — Retail Case Studies (3)**

To give the student an opportunity to report and discuss retail problems in a group situation. Problems discussed are concerned with areas of retail management, planning, personnel, store layout, inventory control, customer services and salesmanship.

**RMMT 0227 — Credit and Collection (4)**

The organization of this course grants the student an appreciation of the economic and social implications of credit and exposes him to the specific type of credit. It presents the vital principles of credit management as well as the everyday experience of an actual credit manager.

**RMMT 0233 — Sales Promotion (3)**

Prereq. Marketing or permission.

A course designed to provide the student with a basic background, which will enable him to effectively create, transmit and manage product information and messages from the seller to the buyer, resulting in the desired response by the buyer. Emphasis is placed on defining the potential consumer and his behavior, selecting the proper promotional methods, and managing the promotional program.

**RMMT 0235 — Advertising (3)**

Prereq. Marketing or permission of instructor.

A study of the principles of advertising stressing the history and development of advertising; its relation to the marketing effort of the firm; its relation to consumers and society in general; the major groups of media used by the advertiser; the creation, planning and management of advertising.

**RMMT 0236 — Special Topics in Retailing (2)**

An independent research study of a particular area of the retailing industry which interests the student. Prerequisite: Sophomore standing, permission of full-time retail instructor and Introduction to Retailing.

**RMMT 0240 — Retail Accounting (3)**

An analysis of accounting and mathematical problems facing the retail manager, including financial statement ratios, department and branch accounting, inventory evaluation methods, turnover ratios and comparisons, pricing policies, profit planning and control, and calculation of returns on investment based on alternate investment decisions.

**RMMT 0301 — Principles of Management (4)**

An introductory course into management concepts, organization and principles with a detailed analysis of the management functions of planning, organizing, staffing, directing and controlling. Communications, decision making and motivation are emphasized as intricate concepts in performing the management functions.

**RMMT 0302 — Personnel Management (3)**

The philosophy, principles, and methods of personnel management; organizational structure, areas of responsibility and authority, policy making, procurement and placement, training, evaluation, wage and salary administration and benefit programs.

**RMMT 0310 — Retail Internship (5)**

Prereq. A minimum of 13 hours in retailing selected from the following: Marketing, Introduction to Retailing, Salesmanship or Retail Accounting plus 36 approved credit hours. Permission of the Retail Marketing Coordinator may be granted in special situations. A minimum 2.0 overall average is required.

The intern program combines study and work experience to give the student self-direction in his career preparation and to familiarize the student with retail management as it actually works. This process of learning through the interaction of study and work experience benefits the student by enhancing his personal development, vocational or professional preparation, and his general education.

**RMMT 0311 — Special Problems in Retailing (2)**

The student applies his practical knowledge of retailing to specific areas of his job. Special problems confronted by the student on the job are prepared in report form to be submitted to his supervisor-coordinator. A special project is required to be completed during his internship quarter. Through this project, the student is expected to become familiar with company methods, policies and procedures.

**SOCIAL SCIENCE****SoSc 0210 — Introduction to Urban Studies (4)**

No prereq. required, but Govt 201 is recommended.

Current information from various disciplines in the social sciences will be integrated to explain the phenomenon of urban growth and to examine problems in selected areas of interest, i.e., education, housing, transportation, land use, etc.

**SoSc 0299 — Interdisciplinary Special Topics in the Social Sciences (4)**

Course will draw upon the various disciplines in the social sciences.

**SOCIAL SERVICE****SSTc 0102 — Introduction to Social Services (3)**

This course will present an overview of the social work profession to the student. Special areas of concern will include social work philosophy and values, types of practitioners, as well as the organization and purpose of social work agencies.

**SSTc 0103 — Contemporary Social Problems (3)**

Prereq. Soci 0101.

Social issues in contemporary America. Society responses to structural defects in society.

**SSTc 0104 — Personal Growth and Development (2)**

A study of how to work with patients/clients, professional people, personal hygiene and office attire, refinement of oral communications with emphasis on conference forms, leadership, and techniques.



**SSTc 0105 — Marriage and the Family (3)**

Prereq. Soci 0101.

A study of the American family system; domestic relations law, courtship, marriage processes, factors associated with successful and unsuccessful marriages. Visitation with local ministers to discuss problems encountered.

**SSTc 0106 — Rehabilitation (2)**

A study of the rehabilitation process. A study of the laws and legislation influencing the rehabilitation process. Visitations and conferences with personnel involved in rehabilitation.

**SSTc 0107 — Sociology of Education (4)**

An examination of education as a social institution. Social factors influencing learning, teaching and school programs. Social trends and problems in education.

**SSTc 0111-0115 — Social Services Internship I-V (2)**

Prereq. SSTc 0102.

This internship program involves the student in applying his classroom studies in the field. Group of 4 to 6 students are assigned to work with counselors, caseworkers, etc. in social work areas.

**SSTc 0201 — Public and Child Welfare (3)**

Contemporary organization, functions, and needs at local, state, and national levels, including social security system. Field experience with caseworkers. Visitation to Welfare Office, Social Security Administration, Vocational Rehabilitation Centers, etc.

**SSTc 0203 — Gerontology (3)**

A study of the life style and problems encountered by the aged.

**SSTc 0204 — Social Group Work (2)**

Orientation to the process and techniques of social group work, the agencies using this method, and trends in the field.

**SSTc 0205 — Historic Background to Urban Society (3)**

A survey of the evolution of urban society, emphasizing the development of change in American culture patterns. Field trip to urban area, and visitations to homes in different geographic regions.

**SSTc 0207 — U.S. Minority Groups (3)**

Examination of minority groups, causes and consequences of prejudice and discrimination.

**SSTc 0208 — The Community and Community Resources (3)**

The American community as a social system. Emphasis on ecology, stratification, and social power.

**SSTc 0209 — Seminar (2)**

Course designed for students to do individual research related to their particular area of interest in Social Services.

**SSTc 0210 — Medical Sociology (3)**

Sociological concepts of illness and health; structure, role, rank, and value of health personnel and patients.

**SSTc 0211 — Social Problems and Police Relations (3)**

Use of sociological perspective to analyze major social problems including causes, treatment, and prevention. Consideration of the ways the community and police allocate its resources to deal with problems. Analysis includes such problems as race relations, poverty, crime, delinquency, population, and work.

**SSTc 0212 — Penology and Corrections (4)**

Societal reactions to offenders against law, viewed historically and cross-culturally.

**SOCIAL WORK****SoWr 0101 — Introduction to Social Welfare and Social Work (3)**

Overview of field of social welfare with equal emphasis on fundamental concepts and services in social welfare and current and emerging tasks in profession of social work.

**SOCIOLOGY****Soci 0101 — Principles of Sociology (4)**

Nature of human society and factors affecting its development. Fundamental concepts of sociology: culture, collective behavior, personality, groups, institutions.

**Soci 0201 — Current Social Problems (4)**

Prereq. Soci 0101.

An examination of the ways in which society comes to define certain conditions as social problems, a descriptive survey of the nature and distribution of contemporary American social problems, and a discussion of the various theoretical orientations used in classifying social problems. Problems under study would include crime and juvenile delinquency, alcoholism and drug abuse, poverty, mental disorder, family disintegration, and problems arising out of discrimination against ethnic minorities and women in American culture.

**Soci 0202 — Introduction to Family Sociology (4)**

Prereq. Soci 0101.

Cross-cultural analysis of family systems. Primary emphasis on American family: courtship, marriage and family relationships.

**Soci 0203 — Introduction to Social Psychology (4)**

Prereq. Soci 0101.

Patterning of conduct through social interaction; functional analysis of individual-group relationships in various organizational contexts; current theory and research in the field.

**Soci 0205 — Sociology of Appalachia (4)**

Prereq. Soci 0101.

Intensive study of Appalachia from sociological perspective. Emphasis on population of Appalachia (number and distribution of inhabitants, characteristics of population, vital processes and migration), "culture of rural poverty," acceptance of innovation and social change in Appalachia, major social institutions in the area and community power structure in Appalachia.

**Soci 0210 — Women in Society (4)**

A study of women's role in society from a historical and sociological perspective.

## SPANISH

**Span 0111 — Elementary Spanish (4)**

Development of comprehension, speaking and reading skills. Basic grammar. Lab required. Beginning course of 3-qr. 1st-yr. sequence.

**Span 0112 — Elementary Spanish (4)**

Prereq. 0111.

Continuation of 0111.

**Span 0113 — Elementary Spanish (4)**

Prereq. 0112

Continuation of 0112.

**Span 0211 — Intermediate Spanish I (4)**

Prereq. Span 0113 or instructor's approval.

Reviews grammar. Offers selected readings in Hispanic literature. Oral facility is emphasized. 3 lec. 2 labs.

**Span 0222 — Intermediate Spanish II (4)**

Prereq. Span 0211 or instructor's approval.

Emphasizes oral and written expression. Continues intensive review of grammar. Selected readings in Hispanic literature are stressed. 3 lec. 2 labs.

**Span 0223 — Intermediate Spanish III (4)**

Prereq. Span 0222 or instructor's approval.

Emphasizes the building of more advanced vocabulary and sentence structure through more difficult prose. Increasing emphasis is placed on conversation and free composition. 3 lec. 2 labs.

## SPEECH

**Spch 0101 — Speech I (3)**

Public speaking employing principles of effective oral communication. Practice in presenting informative and persuasive speeches with emphasis on the communicative process.

**Spch 0102 — Speech II (3)**

Analysis of role of oral communication in human relationships with consideration of a variety of interpersonal contexts; performance directed toward concentrated study of conference types.

**Spch 0105 — Introduction to Mass Communication (4)**

All forms of mass communication including newspapers, magazines, radio-television, book publishing, public relations, advertising and photojournalism. Begins with an analysis of communication process and ends with media career opportunities.

**Spch 0110 — Listening Behavior (2)**

Improvement of listening skills through intensive practice.

**Spch 0125 — Parliamentary Usage (3)**

Theory and practice of parliamentary procedure as it applies to governmental and non-governmental organizations. Includes practice in organizing groups and conducting meetings.

**Spch 0205-A — Argumentation and Debate (4)**

Basic principles of argumentative discourse including concepts of presumption, burden of proof, rhetorical forms of reasoning and evidence. Practice in applying of these principles.

**Spch 0205-B — Intercollegiate Debate (2)**

Workshop for intercollegiate debating. Can use 4 hours toward degree.

**Spch 0205-C — Intercollegiate Debate (2)**

Intercollegiate individual events competition.

**Spch 0215 — Group Discussion (4)**

Study of structure and internal dynamics of small groups, nature and functions of leadership and group participation, problem solving and decision making; frequent participation in group discussion activities.

**Spch 0220 — Oral Interpretation of Literature (4)**

Techniques of oral interpretation and development of adequate intellectual and emotional responsiveness to meaning of literature.

**Spch 0225 — Verbal Language Behavior (3)**

Introduction to fundamental linguistic theory of verbal language production in message generation. Survey of voice and articulation characteristics.

**Spch 0230 — Communication Theory and Process (4)**

Survey of selected humanistic and scientific approaches to communication studies. Emphasis on philosophical bases of communication theory.

## THEATER

### Thar 0100 — Introduction to Theatre (3)

Theatre as an art form, presented from the historical, literary and production point of view (Greeks to Present). 3 lec.

### Thar 0100 A, B, C — Theater - Shawnee Company (3-9)

Introductory study of theater performance and production.

### Thar 0201 — Children's Theatre (5)

A course designed to cover dramatic compositions and practical production procedures for child audiences.

### Thar 0215 — Principles of Acting (3)

Basic principles and techniques of acting.

### Thar 0220 — Oral Interpretation (3)

Techniques in oral interpretation and development of intellectual and emotional responsiveness to meaning of literature.

### Thar 0225 — Stage Costume and Make-up (3)

A course designed to cover the basic principles of stage costume and make-up.

### Thar 0230 — Music - Theatre (3)

Participation in selected musical theatre projects. Participation may be through production or performance.

## WELDING

### Weld 0101 — Template Layout and Construction (1)

A course designed for students majoring in Welding, to give a working knowledge of template development. Emphasis is placed on design and making templates for the layouts of various pipe joints.

### Weld 0111 — Basic Oxy-Acetylene Welding (5)

A course designed to teach the procedures for oxy-acetylene welding and cutting. Fabrication of gas-welded structures, position welding, and the care of gas-welding equipment are included.

### Weld 0112 — Basic Inert Gas Welding (3)

A course in the fundamentals of gas metal arc welding and tungsten inert gas welding. Special emphasis is placed on welding ferrous metals with these processes.

### Weld 0113 — Basic Arc Welding (4)

A study of all types of welded joints, stressing care, maintenance, and the use of the arc welder in fabrication of steel structures.

### Weld 0201 — Combined Welding I (3)

A combined welding course which gives the student experience in varied welding shop projects with oxy-acetylene and arc welding. Practice in making horizontal, vertical, and overhead welds is included.

### Weld 0121 — Basic Metallurgy (3)

The study of steel classifications, heat treatment procedures, properties of ferrous and non-ferrous metals, and non-destructive testing. This course is offered to Technical Drafting, Welding, and Machine Tool students.

### Weld 0202 — Combined Welding II (3)

A combined course in gas and arc welding to provide the machinist or other tradesman with sufficient welding experience to make minor repairs and to fabricate simple assemblies. Emphasis is placed on the building up of worn parts and the repair of broken parts. The use of low temperature rods is included to make the repair of machine tools, such as milling cutters, possible.

### Weld 0122 — Welding Metallurgy (2)

A lecture-demonstration course designed to give welding students a better understanding of effects of alloying elements on welds. The course utilizes the metallurgy laboratory and deals with the inspection and testing of welds, etching, grain structure changes made by welding, and slags and gasses for welding shielding.

### Weld 0203 — Combined Welding III (3)

A combined welding course covering gas arc theory and practice, structured for students needing more than the offering of Combined Welding II.

### Weld 0211 — Welding Symbols and Prints (4)

A study of blue print details of how structures are to be made — weld locations, types of joints, correct size and amount of weld deposited at designated seams. Welding symbols as they apply to all forms of manual and automatic machine welding as standardized by the American Welding Society (AWS).

### Weld 0212 — Advanced Welding (5)

A course designed to produce an experienced welder prepared for rapid advancement in the field. It includes non-ferrous welding, tool welding, alloy castings, welding of pressures, vessels, pipe fabrication, and more intricate welding procedures and application.

### Weld 0213 — Advanced Inert Gas Welding (3)

A course designed to give the student more advanced practice in Gas Metal Arc and Tungsten Inert Gas Arc Welding. The course includes the welding of non-ferrous alloys and position welding with these processes.

## SHAWNEE STATE COMMUNITY COLLEGE

### Board of Trustees

Walter N. Brown .....	Chairman
James C. Strafford .....	Vice Chairman
William H. Horr, J.D. ....	Member
F. D. Hyland .....	Member
Phyllis D. Kennedy .....	Member
Duncan M. Baxter .....	Member
Victor W. Morgan .....	Member
John T. Rittenour, J.D. ....	Member
David A. Vetter .....	Member

### Administrative Officers of the College

Robert W. Flinchbaugh, Ph.D. ....	President/Secretary of Board of Trustees
Frank C. Taylor, M.A. ....	Vice President
Neil Hawk, B.B.A. ....	Treasurer/Controller
Gene S. Come, Ph.D. ....	Dean of Academic Programs
Tom F. Foti, M.A. ....	Dean of Technical Programs
Arnold V. McCoy, M.A. ....	Dean of Student Services

### Student Services Staff

Richard R. Howard, M.A. ....	Counselor, Director of Admissions
Richard T. Davidson, M.A. ....	Counselor, Director of Employment Placement
Paul D. Crabtree, Ph.D. ....	Counselor, Director of Transfer Placement
Frederick Chrisman, Jr., M.Ed. ....	Counselor, Director of Off-Campus Programs
Eugene D. Wilson, M.A. ....	Veterans Coordinator/Director of Financial Aid
Berry L. Smith, B.B.A. ....	Director of Administrative Data Processing

### Library Staff

John C. Williams, AMLS .....	Director of Library
Teresa D. Midkiff, MLS .....	Assistant Librarian

## FACULTY

- Nancy Barnett — English — B.S. Ohio University; M.A. Marshall University
- Bill Beattie — Parks & Recreation — M.S., B.S. Ohio State University
- Shirley Blume, R.N., — Associate Degree Nursing — BSN, Ohio State University
- Forrest Colegrove — Mathematics — A.B. Ohio University; M.S. University of Wisconsin
- Shirley Crothers — Music — B.S. Ohio State University; M.A. Ohio University
- Robert Decker — Data Processing and Computer — B.S. Indiana University
- Patricia Ann Doorley — Director, Respiratory Therapy — B.S. Indiana University of Pennsylvania; M.S. State University of New York at Stony Brook.
- Larry C. Essman — Accounting — M.A. Ohio University
- Larry Estep — Retail Marketing Management — B.B.A. Ohio University; M.S. Marshall University
- Orville Ferguson, Jr. — Civil Engineering — B.S. West Virginia State College
- Cathleen Fluty — English — A.B., M.A. Marshall University
- R. Thomas Frazee — Chemistry — B.S. Marshall University, M.S. Iowa State
- Signe Froberg, R.N., — Associate Degree Nursing — BSN, University of Washington; EdM, Temple University.
- Anna Gampp, R.N., — Associate Degree Nursing — BSN, Ohio State University
- Ali A. Golji — Director, Medical Laboratory Technology — B.S. MT(ASCP) Wayne State University; M.S. Marshall University
- Emily Gulker — Theater-Speech — B.S.Ed. Ohio State University; M.A. Marshall University
- Sibylle Herrmann — Biological Science — B.S. Ohio University; M.S. University of Michigan
- Betty Hodgden — English — B.A. Otterbein College; M.A. Marshall University
- Brenda Horr — Practical Nursing — A.D.N. Ohio University at Portsmouth
- C. Ray Irwin — Program Coordinator of Engineering Technologies, Electro-Mechanical Engineering — B.S.E.E. Ohio University
- Jack James — Psychology and Sociology — B.A., Houghton College; M.S., Alfred University; M.Div., Colgate Rochester Divinity School.
- Phyllis Kegley — Mathematics — B.S. Ohio State University; B.A. Marshall University
- John Kelley — History — B.A. Marian College; M.A. in History Indiana University; Additional Graduate Work, Indiana University
- Joyce Kiser — Executive Secretarial — B.A., M.B.E. Morehead State University
- Shannon Kiser — English — B.S. Morehead State University; M.A. University of Kentucky
- Frederick W. Law — B.S. University of Wisconsin-Madison; M.S. in Microbiology West Virginia University.
- Robbie Luther — Retail Marketing Management — B.A. West Virginia Wesleyan College; M.S. Marshall University
- Eleanor Marsh — Sociology/Anthropology — B.A. Washington State University; M.A. Washington State University
- Dorothy Matthews, R.N., — Associate Degree Nursing — AB, University of North Carolina
- Jane Moore — Director Radiologic Technology — B.S. Allied Medical Professions with major in Radiologic Technology — Ohio State University.
- Erla Mowbray, R.N., — Associate Degree Nursing — BSN, Ohio State University
- Timothy Ohrstrom — Electro-Mechanical Engineering — B.S.E.E. Ohio University
- Scott Oliver — Biological Science — B.S. Ohio University; D.D.S. Ohio State University College in Dentistry.
- Betty Robinson, RN — Instructor, Program Coordinator Practical Nursing — B.S. University of Cincinnati
- Sonya Scarff — Practical Nursing — Diploma Christ Hospital School of Nursing
- Lois Shumway — Accounting — B.A. Ohio Wesleyan University; M.A. New York University
- John Shupert — Mathematics — B.S. Ohio University; M.A. Louisiana State University; M.A. University of Illinois
- Kathleen Simon — English — A.B., M.A. Eastern Kentucky University
- Lyle Smith — Plastics Engineering — B.S. Ohio University
- Jack Spratt, Jr. — Director, Dental Hygiene — B.S., D.D.S. Ohio State University
- Charles Staggs — Civil Engineering — B.S. University of Kentucky
- Thomas D. Stead — Art — B.F.A., M.F.A. Ohio University
- David Todt — Parks & Recreation — B.S., M.A., Miami University.
- Jerry Walke — Psychology — B.S. Capital University; M.S. Ohio University; Ph.D. Ohio State University
- Betty Waller — Physical Education — B.S.Ed. Miami University; M.S. Marshall University
- Carol Ward, R.N., — Associate Degree Nursing — BSN, Western Reserve University, MSN, Case Western Reserve University
- Harry Weinbrecht — Physical Education — B.S.Ed. Ohio University; M.S. PE Xavier University
- Linda Wooddell — Practical Nursing — B.S. University of Alabama School of Nursing.

# CALENDAR FOR 78-79 ACADEMIC YEAR

## Fall Quarter 1978

Sept. 13-14	Late registration
Sept. 14	Last day to pay fees or make arrangements with the Business Office
Sept. 18	First day of classes
Sept. 29	Last day to add a class or apply for pass/fail
Oct. 13	Last day for refund
Oct. 30-Nov. 9	Winter Quarter advising
Nov. 3	Last day to drop a class or apply for non-credit
Nov. 10	School closed — Veterans Day
Nov. 13	Registration week
Nov. 23	Thanksgiving Day
Nov. 24	Substitute Columbus Day — School Closed
Dec. 7	Quarter ends at 6:00 pm
Dec. 7, 8, 9, 11, 12, 13	Exams begin Dec. 7 at 6:00 pm through Dec. 13, 10:00 pm
Dec. 14	Grades due
Dec. 22	Substitute Martin Luther King Day — School Closed
Dec. 25	Christmas holiday
Dec. 29	Substitute President's Day — School Closed

## Winter Quarter 1979

Jan. 1	New Year's holiday
Jan. 2	Late registration
Jan. 2	Last day to pay fees or make arrangements with the Business Office
Jan. 3	First day of classes
Jan. 15	School open — Martin Luther King Day
Jan. 16	Last day to add a class or apply for pass/fail
Jan. 26	Last day for refund
Feb. 5-16	Spring Quarter advising
Feb. 19	School open — President's Day
Feb. 19	Registration week
Feb. 21	Last day to drop a class or apply for non-credit
Mar. 15	Quarter ends at 6:00 pm
Mar. 15, 16, 17, 19, 20, 21	Exams begin Mar. 15 at 6:00 through Mar. 21, 10:00 pm
Mar. 22	Grades due

## Spring Quarter 1979

Apr. 2	Late registration
Apr. 2	Last day to pay fees or make arrangements with the Business Office
Apr. 3	First day of classes
Apr. 16	Last day to add a class or apply for pass/fail
Apr. 26	Last day for refund
Apr. 30-May 11	Summer Quarter advising
May 14	Registration week
May 21	Last day to drop a class or apply for non-credit
May 28	School closed — Memorial Day
June 7	Quarter ends at 6:00 pm
June 7, 8, 9, 11, 12, 13	Exams begin June 7 at 6:00 pm through June 13, 10:00 pm
June 14	Grades due
June 16	Graduation

## Summer Quarter 1979

June 19	Late registration
June 19	Last day to pay fees or make arrangements with the Business Office
June 20	First day of classes
June 26	Last day to add a 5-week session course or apply for pass/fail
July 2	Last day for refund — 5-week session
July 3	Last day to add a full quarter course or apply for pass/fail
July 4	School closed — holiday
July 13	Last day for refund — full quarter session
July 13	Last day to drop a 5-week session course or apply for non-credit
July 24	Last day of 5-week session
July 24	Exams for 5-week session
July 25	Grades due for 5-week session
Aug. 8	Last day to drop a full quarter course or apply for non-credit
Aug. 6-10	Orientation and advising for Fall Quarter
Aug. 13	Registration week
Aug. 27	Full quarter ends
Aug. 28-29	Exams
Aug. 30	Grades due

## Fall Quarter 1979

(Please call the college for more information on the '79-'80 school calendar)