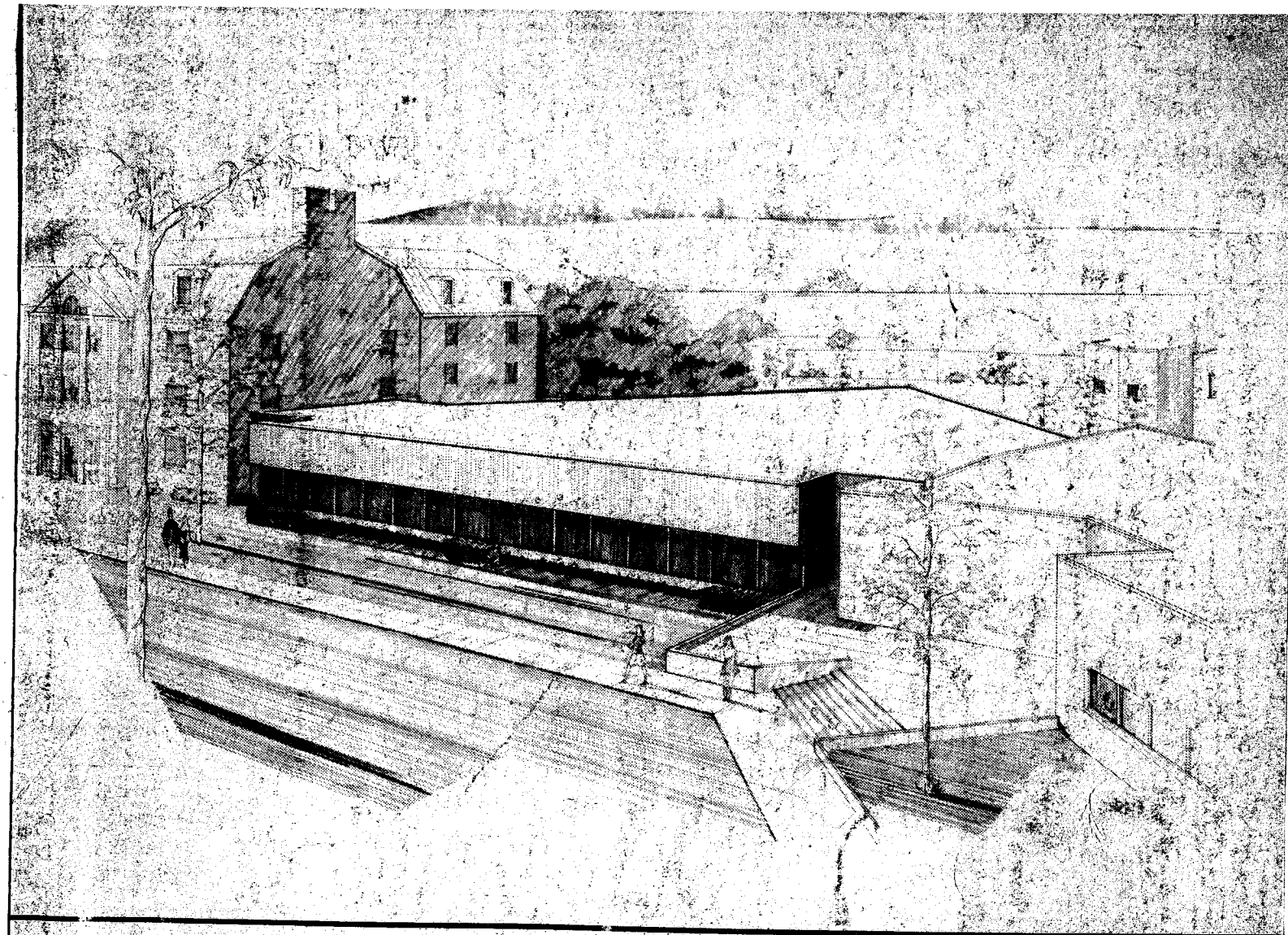
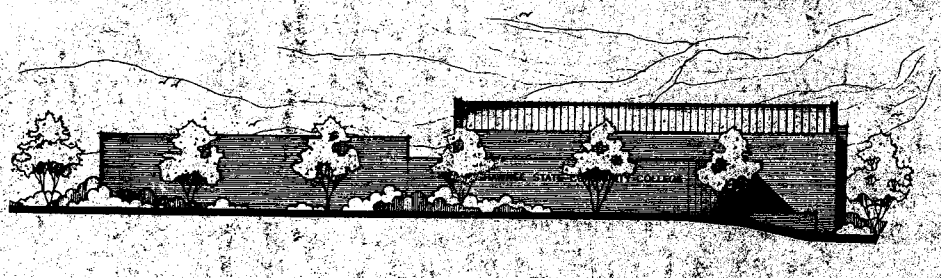


1983-1985

SHAWNEE STATE COMMUNITY COLLEGE

940 Second Street
Portsmouth, Ohio 45662



SHAWNEE STATE COMMUNITY COLLEGE

1983-1985

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

Associate of Arts Degree
Associate of Science 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." This institution does not discriminate with regard to race, sex, religion, or national origin.
(Richard R. Howard, Coordinator of Services for the Handicapped)

MAJORS OFFERED AT SHAWNEE STATE COMMUNITY COLLEGE

ASSOCIATE OF APPLIED BUSINESS DEGREE

Accounting
Business Management
- Retail Management
- Banking/Finance
- Business Management
- Real Estate

Data Processing
Secretarial
- General
- Executive
  - Medical
  - Legal

ASSOCIATE OF APPLIED SCIENCE DEGREE

Automotive Technology
Civil Engineering
Diesel Technology
Electro-Mechanical Engineering
Plant Maintenance Engineering
Plastics/Chemical Engineering
Welding Technology

Social Services Technology
Recreation and Parks Management
Dental Hygiene
Associate Degree Nursing
Medical Laboratory
Radiologic Technology
Respiratory Technology

CERTIFICATE OF ALLIED HEALTH

(one year programs)

Practical Nursing
Respiratory Therapy Technician
Emergency Medical Technician — Paramedic

ASSOCIATE OF ARTS DEGREE/ ASSOCIATE OF SCIENCE DEGREE — University Parallel or Transfer Programs

Teacher Education/Social Sciences
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

Business Administration
Government
History
Pre-Law
Psychology
Social Work
Sociology

Humanities/Fine Arts
Art
Communications (General)
Comparative Arts
English
Journalism
Theater

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.

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ACCREDITATIONS

Shawnee State Community College is fully accredited by:
NORTH CENTRAL ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS
In addition, the institution is aproved 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—Division of Vocational Education
Ohio College Association
American Dental Association
American Medical Association — Committee on Allied Health Education & Accreditation
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 evaluations.

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MISSION OF THE COLLEGE

As a comprehensive community college, Shawnee State Community College responds to individual and collective needs of the community and areas which it serves and encourages individuals to be dedicated to learning and to make this dedication a lifelong commitment.

Shawnee State Community College strives for a realistic balance among its three major functions: (1) to offer transfer or university parallel programs; (2) to offer occupational programs; and (3) to offer continuing education/community service. To assure the successful completion of these functions, Shawnee State Community College provides a variety of vital student services such as advising and counseling, developmental education, and financial assistance. Also, educational resources in the form of qualified and conscientious faculty and staff, library and media services, well-equipped and modern physical facilities, and a sound financial management assure quality educational and learning experiences. Off-campus classes and learning experiences are provided when feasible. All of these programs, services, and resources must be provided at reasonable cost to the students and clientele.

As a necessary ingredient for continued effectiveness, the College must provide leadership which will ensure that educational and learning experiences accurately reflect the needs of the individual. Whether these educational and learning experiences fall under developmental, general education, occupational, avocational, or social/recreational, the College must provide quality educational opportunities to persons of all ages. Of special consideration are the opportunities which must be provided for older citizens, single parents, and individuals with full-time employment. **Flexibility** and **quality** are key terms. The College must be flexible enough to meet the various needs of individuals, but at the same time there must be an adherence to realistic standards. The judgment as to which standards are realistic is essential and one of the daily and on-going tasks of the College.

As strongly implied, the mission of the College is predicated on a strong belief in the dignity and worth of the individual, who is the most important component of the College. The development of the individual for a useful and productive life must be the basis by which goals and objectives are established and by which decisions regarding the operation of the College are made.

To realize the full potential of the College mission, the College operates with an open-admission policy which allows any individual to attend college who may not have qualified for admission by traditional standards. This open-admission policy with the resulting diverse student body and potential student body necessitates that the College find effective, quality educational activities to help each student determine realistic educational goals, discover individual abilities and interests, and develop his or her potential to its fullest.

ADMISSIONS PROCEDURES

Entrance Requirements

Shawnee State Community College will provide access to the college through an open-admissions policy which:

A. Admits high school graduates as enrollment ceilings permit.

B. Admits students that have successfully completed the General Education Development Test for high school equivalency as enrollment ceilings permit.

C. Admits students over 18 years of age without a high school diploma or a GED as part-time students (less than 12 hours credit) as enrollment ceilings permit. The student may be full-time with the Dean of Student Services approval. Upon successful passing of one quarter of part-time course work, the student will be eligible for full-time enrollment.

D. Admits high school students on a part-time basis with written recommendation from the student's high school principal or counselor and written consent from the student's parent or guardian. Letters of permission and recommendation are required for each quarter of enrollment. Enrollment will be limited to less than 12 hours of credit per quarter.

E. Admits students that have attended other colleges or universitites as enrollment ceilings permit. Evidence of honorable dismissal is required of transfer students.

F. Admits senior citizens on a non-credit, no-fee basis as enrollment ceilings permit.

G. Admits foreign students with F-1 visas, satisfactory language test scores, and sufficient available funds for two years of maintenance and fees.

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 $15 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 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 admissons 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.

Admissions Procedures For Foreign Students

The applicant files (1) an admissions application, (2) complete official transcripts and pertinent certificates for all secondary and post-secondary work (an official translation must accompany transcripts and certificates which are not in English — do not submit documents for which there is only one copy. Documents submitted in support of an application cannot be returned to owner) (3) results of the test of English as a foreign language (TOEFL) if the applicant's native language is not English. Applicants must score a total of 500 to be admitted without restriction. Applicants scoring 450-499 will be reviewed by the Director of Admissions with possible admission under a restricted course load and specific courses. Students with scores of less than 450 and without additional supporting evidence will not be admitted. (4) such evidence as may be required by the college concerning the applicant's ability to meet the financial obligations of a student in the United States.

The Shawnee State Community College budget for a self supporting single student is $4,740.00 for the 1982-83 academic year. The applicant must present a statement from a U.S. bank indicating that the applicant has resources equal to the amount required for two years of education or $10,000.00 and that these resources will be available to the applicant.

Immigration regulations prevent applicants from earning any substantial portion of this amount. There are virtually no scholarships available to students from abroad.

Due to the special problems which may be encountered by a student from abroad, upon arrival the student will be assigned a counselor by the Vice-President of Student Services.

Payment of the $15.00 non-refundable application fee may be deferred until registration.

Further information concerning the TOEFL can be obtained by writing the Educational Testing Service, Box 592, Princeton, New Jersey, 08540.

Once the student receives an acceptance letter, he will also receive an I-20 form to be used in securing a student visa. Questions pertaining to your visa should be directed to the nearest immigration office.

Students must show evidence of a non-immigrant "F-1" student status visa to be eligible to register.

Senior Citizens

Shawnee State encourages senior citizens (60 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, however, senior citizens can receive credit by paying tuition and fees.

*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 resonsible 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 15 minutes. If the class meets once a week for 3-5 hours, the students must remain in the classroom for 45 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 Records Office. Grades will not be issued orally.

Description of Grades

Grade	Description	Quality Points
A	Excellent	4.00
A-		3.67
B+		3.33
B	Good	3.00
B-		2.67
C+		2.33
C	Average	2.00
C-		1.67
D+		1.33
D	Poor	1.00
D-		0.67
F	Failing	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.

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. Students may not take over one class per quarter on a pass/fail basis without approval of the Dean of Student Services.

Course Credit by Examination

Students have the opportunity to fulfill requirements for selected courses offered at Shawnee State Community College by examination. Students interested in pursuing this educational option should first secure the advice of a college counselor (Academic courses) or program director (Technical courses) as to its appropriateness for the student's program of study. Since all courses are not available on a "by examination" basis, the student should then contact the appropriate college dean. The college dean, after consultation with appropriate faculty, will then make a determination as to the feasibility of the student's request.

A fee of $30.00 is charged for Course Credit by Examination.

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 of more.

Credit given by examination does not apply toward the 30 hour residency requirement for graduation.

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.

Credit given through the College Level Examination Program does not apply toward the 30 hour residency requirement for graduation.

Repeating Course Work

Students may repeat courses which they have previously completed. In order for the final transcript to reflect only the highest grade earned, the student must complete a course deletion form in the records office.

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.

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 the 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
86-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 curing 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.

Course Credit By Arrangement

Students have the opportunity to fulfill requirements for selected courses offered at Shawnee State Community College by arrangement. Students interested in pursuing this educational option should first secure the advice of a college counselor (Academic courses) or program director (Technical courses) as to its appropriateness for the student's program of study. Since all courses are not available on a "by arrangement", the student should then contact the appropriate college dean. The college dean, after consultation with appropriate faculty, will then make a determination as to the feasibility of the student's request.

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.

Residency Status

A resident of Ohio for all education purposes shall be:

1. A dependent student living with a parent who has lived in Ohio for 12 months.
2. A person who has resided in Ohio for 12 months before enrolling in school.
3. A person who is living and employed in Ohio and going to college part time.
4. A person on active duty in the U.S. Military, who is stationed in Ohio.

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. Students with an accumulative grade point ratio of 3.7 or above prior to the quarter of graduation will be graduated with high 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 the Director of Admissions immediately.

Students may request transcripts from the Student Services Office. There is no charge for the first transcript. Subsequent transcripts are $2.00 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. Fees may be paid by cash, check, money order Visa, or Master Card. 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	$280.00	$310.00
Full Time Student (12-20 cr. hrs.)		
Part Time Student (1-11 cr. hrs.)	26.00 per cr. hr	28.00 per cr. hr.
General Fee		
Full Time Student	45.00	45.00
Activity Fee		
Full Time Student	5.00	5.00
Part Time Student	5.00	5.00
Lab Fees	see below	
Extra fee for each quarter hour in excess of 20 hours	26.00 per cr. hr.	28.00 per cr. hr.
Credit by Examination	30.00 per course	30.00 per course
Course by Arrangement	40.00 per cr. hr.	40.00 per cr. hr.
Graduation Fee	30.00	30.00

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

Bad Check Policy

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

A check returned for insufficient funds is a federal offense and constitutes nonpayment of your obligation to Shawnee State Community College.

Therefore, any student that has a check returned for insufficient funds, and the same is not cleared by the fourteenth day of the quarter, shall be considered in noncompliance with institutional policy and will be administratively dismissed.

Any student administratively dismissed due to a bad check has no recourse for readmission for the **current** quarter.

Lab Fees

See the course description section for identification of classes with lab fee charges. The fee per class is available at any of the following offices:

Business Office Admissions Office Library

Student Insurance

Shawnee is providing all full time students with the benefit of a very good comprehensive health insurance policy. With your Fall Quarter billing, you may enroll 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.

Refund of Fees

Continuing students dropping hours by change order prior to or during the first fourteen (14) 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 fourteenth (14th) 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 no officially withdraw *are not* eligible for any refund and fees assessed are due and payable.

Time of Withdrawal (Regular Term)	**Refund**
1 to 14 calendar days	100% of Tuition
15 to 20 calendar days	50% of Instructional fee
over 20 calendar days	No refund

Time of Withdrawal (5 week session)	**Refund**
1 to 4 calendar days	100% of Tuition
5 to 8 calendar days	60% of Instructional fee
over 8 calendar 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 concerning the above information should be referred to the Business Office.

Late Registration and Late Payment Policy

A late registration fee of $25.00 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 $15.00 application fee, non-refundable, must accompany all admission applications.

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 $2.00 per copy.

Graduation Fee

A $30.00 graduation fee is required prior to the issuance of an official college diploma.

STUDENT ACTIVITIES

Music and Drama

The music and theatre departments at Shawnee State Community 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 a 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 can be found in the Shawnee Student Handbook located in the library and in each counselor's office. The institution seeks to establish an atmosphere of openess and it is in this spirit that these guidelines are offered.

College Rules 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 the 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 (possesion 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 — Shawnee Student Handbook

Information can be found in the Shawnee Student Handbook on Ohio House Bill No. 1219, College Policy to Review Student's Records and the Grievance Procedure for Student Senate Affairs. Handbooks are available in the Library and 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 1983-84

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
8. Swimming

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.

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.

Counseling services are available to students, alumni, and their families at no cost upon requst at the Student Services offices.

Professional Counselors and Building Location:

Dotty Welch	Commons Building
Richard R. Howard	Commons Building
Eugene Wilson	Commons Building
Tom Davidson	Business & Engineering Building
Fred Chrisman	Riffe Building
Dr. Paul D. Crabtree	Commons Building

Counseling sessions are confidential.

Student Services Offices are open from 8:00 a.m. to 6:00 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 education consists of three areas:

1. Pre-college courses in mathemetics, biology chemistry, physics, English, reading development, and vocabulary development are offered 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.

2. A peer tutoring program is also available to students upon faculty or counselor recommendation. A student may receive academic tutoring of up to three hours per week for a course in which he is experiencing academic difficulty. If he is interested in receiving the service, he should contact the instructor of the course, the Director of Developmental Education, or a student services counselor. If he is interested in being a tutor, he should see the Director of Developmental Education. tutors are reimbursed for their tutoring time.

3. The Learning Center allows for individualized learning with various instructional programs such as videocassettes, audiocassettes, slide programs, filmstrips, and computer-assisted instruction.

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 PELL Grant, and the Supplemental Educational Opportunity Grant (SEOG). Grants are not repaid. Interested students should contact the Financial Aids Office.

Loans: 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 State Approving Agency 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 makes 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 the Commons Building.

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

Housing

There are approximately 100 spaces available in college approved housing in close proximity to the College. These housing units are managed by a developer who is totally responsible for their operation.

Student Parking

Parking for students is available behind and to the east of Massie Hall. Parking is available on a first-come first-serve basis unless otherwise posted.

Handicapped Parking

Students of Shawnee State Community College that are subject to a physiological defect or deficiency which restricts or limits their mobility may apply to the Vice-President of Student Services for a sentinel key card to the restricted parking lot.

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, WIRO and WNXT radio and Teleprompter Cable TV.

Libraries

Library services are available to serve the needs of students. 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 indentification in utilizing the library and student activities. Students must present evidence of registration certification at the time the I.D. card is received.

SHAWNEE STATE COMMUNITY COLLEGE

ASSOCIATE OF ARTS DEGREE

ASSOCIATE OF SCIENCE 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 and Associate of Science Degrees, 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 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 preprofessional 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.

Associate of Arts/Associate of Science

(College or University Parallel Programs)

Courses offered under the A.A. or A.S. Degrees at Shawnee State resemble those courses typically offered during the first two years at a baccalaureate institutuion. 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. & A.S. Degrees have 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/Associate of Science

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

2.00 cumulative average required for graduation.

Associate of Arts

I. Core Requirements

Designed primarily for those desiring two years of general education with an emphasis in the arts, social sciences, or humanities.

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 hrs. min.)

At least two courses from one area:
- A. Biological Sciences (Bio. 111 or above)
- B. Chemistry (Chem. 121, 122, or Chem. 141, 142, 143)
- C. Geology
- D. Physics
- E. Physical Sciences
- F. Mathematics (Math. 120, 121, 130-32, 150, 201-203)

C. Social Sciences (12-15 hrs.)

Courses covering two areas:
- A. Economics (Econ. 101, 102)
- B. Psychology
- C. Geography
- D. Government
- E. History
- F. Sociology
- G. Anthropology

D. Humanities (20 hrs. min.)

Courses covering two areas:
- A. Philosophy
- B. Comparative Arts
- C. Humanities
- D. Art
- E. Modern Language
- F. Music
- G. Theater
- H. Literature/English

E. Health/Physical Education (2-4 qtr. hrs.)

Two activity courses or Health 202.

II. Concentration Area.

Selected Specialized Courses

Associate of Science

I. Core Requirements

Designed primarily for those desiring two years of general education with an emphasis in the sciences and mathematics.

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/Mathematics (20 hrs. min.)

At least two courses from one area:
- A. Biological Sciences (Bio. 111 or above)
- B. Chemistry (Chem. 121, 122, or Chem. 141, 142, 143)
- C. Geology
- D. Physics
- E. Physical Sciences
- 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
   - C. Geography
   - D. Government
   - E. History
   - F. Sociology
   - G. Anthropology
2. (Humanities) (12-15 qtr. hrs.)
   - A. Philosophy
   - B. Comparative Arts
   - C. Humanities
   - D. Art
   - E. Modern Language
   - F. Music
   - G. Theater
   - H. Literature

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

Two activity courses of Health 202.

II. Concentration

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/Social Science

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

Business Administration
Government
History
Pre-Law
Psychology
Social Work
Sociology

Humanities/Fine Arts

Art
Communication (General)
Comparative Arts
English
Journalism
Theater

Mathematics/Sciences

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

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
[1]Science (Core Requirements — See Page 14)	12
Modern Math (Math 120 & 121 — Elem. Topics in Math)	10
[2]Speech 101 or 102	3
Psy. 101, General	4
English (Eng. 111, 112, 115, 140 A, B, C, D)	8
[3]Social Sciences (Electives) (Core Requirements—See Page 14)	8
Physical Education	1
Total	46

Sophomore	Hours
[3]Science (Electives) (Core Requirements—See Page 14)	12
Ling. 270	5
Music 160, 161	6
HPER 202 Personal and Community Health	4
HPER 270 Phy. Ed. for the Elem. Teacher	3
HPER (Activity Courses)	1
Art for the Elem. Teacher I, II	6
Education Psy. (275)	5
Humaniites Electives (Core Requirements—See Page 14)	4
Total	46

1. Three courses required—must include at least one course in Biology and one in the 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.

*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
English (111, 112, 115, 140 A, B, C, D)	8
Psychology 101	4
Social Sciences (Core Requirements — See Page 14)	8
Natural Sciences (Core Requirements — must include lab)	8
Humanities (Core Requirements—See Page 14)	8
Physical Education	1
Electives (Math 150, Psy. 131, Psy. 241	8
Total	45

Sophomore	Hours
Speech 101 or 102	3
HPER 202 (Per,. and Comm. Health)	4
HPER 250 (Recreational Leadership)	3
Art 201, 202 (Art for the Elem. School I, II)	6
Math (Math 120 or higher)	5
Music 160, 161	6
Physical Education	1
Electives	12
Psyc. 275	5
Total	45

NOTE: 30 hours required at 200 level for graduation

EDUCATION (BIOLOGY—GENERAL SCIENCE)

Freshman	Hours
English (111, 112, 115, 140 A, B, C, D)	8
Chemistry 141, 142, 143	12
Biology 111, 112, 113	16
*Math 201, 202	10
Physical Education	2
Total	48

Sophomore	Hours
Speech 101 or 102	3
Physics 201, 202, 203	12
Humanities (Core Requirements—See Page 14)	12
Social Sciences (Core Requirements—Psy. 101 required)	12
Psychology 275 (Educ. Psy.)	5
Electives (Sciences)	4
Total	48

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

EDUCATION (CHEMISTRY—GENERAL SCIENCE)

Freshman	Hours
English (111, 112, 115, 140 A, B, C, D)	8
Chemistry 141, 142, 143	12
*Math 201, 202, 203	15
Humanities (Core Requirements—See Page 14)	8
Social Sciences (Core Requirements—Psy. 101 required)	4
Physical Education	1
Total	48

Sophomore	Hours
Chemistry 205, 206 207	12
Physics 201, 202, 203	12
Social Sciences Elective	4
Psychology 275 (Educ. Psy.)	5
Chemistry 225 and 224	10
Physical Education	1
Speech 101 or 102	3
Total	47

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

EDUCATION — COMMUNICATIONS (ENGLISH EMPHASIS)

Freshman	Hours
English (111, 112, 115, 140 A, B, C, D)	8
Natural Sciences/Math (Core Requirements—1 science, 1 math) (Math 120 or higher)	12
Social Sciences (Core Requirements—Psy. 101 required)	12
Humanities (Core Requirements—See Page 14)	12
Physical Education	1
Total	45

Sophomore	Hours
Psychology 275	5
Speech 101 or 102	3
Speech 105 (Intro. to Mass. Comm.)	4
Speech 220 or Thar. 220 (Oral Inter. of Lit.)	4
Speech 215 (Discussion)	4
Physical Education	1
English 201, 202, or 203	4
English 204, 205, or 206	4
English 225 or 226	4
Electives (English)	4
English (General)	8
Total	45

COMMUNICATIONS — SPEECH EMPHASIS

Freshman	Hours
English 111, 112, 115, 140 A, B, C, D	8
Speech 102	3
Natural Sciences/Math (At least 1 course in each) (Math 120 or higher)	12
Social Sciences (Core Requirements—Psy. 101 required)	12
Humanities (Core Requirements—See Page 14)	12
Total	47

Sophomore	Hours
Psychology 275 (Educ. Psy.)	5
Thar. (Elective)	3
Journalism 231 (News Reporting)	4
English 201, 202, or 203	4
Physical Ed.	2
Total	18
Speech 105 (Intro. to Mass. Comm.)	4
Speech 215 (Group Discussion)	4
Speech 220 or Thar. 220 (Oral Interp.)	4
Electives	20
	32
Total	50

ENGLISH—ENGLISH COMPREHENSIVE

Freshman	Hours
English 111, 112, 115, 140 A, B, C, D	8
Speech 101 or 102	3
Sciences/Math (At least 1 science and 1 math) (Math 120 or higher)	12
Social Sciences (Core Requirements—Psy. 101 required)	8
Humanities (Core Requirements—See Page 14)	8
Physical Education	2
Electives	4
Total	45

Sophomore	Hours
Social Science (Core Requirements—See Page 14)	4
Humanities (Core Requirements—See Page 14)	4
Psychology 275 (Educ. Psy.)	5
English 201, 202, or 203	4
English 204, 205, 206	8
English 225 and 226	8
Electives (Must include 1 English course above freshman level)	12
Total	45

EDUCATION — GENERAL SPEECH (SPEECH EMPHASIS)

Freshman	Hours
Speech 101, 102	6
Speech 105 (Intro. to Mass. Comm.)	4
English 111, 112, 115, 140 A, B, C, D	8
Natural Sciences/Math (At least 1 course in each) (Math 120 or higher)	12
Psychology 101	4
Humanities (Core Requirements—See Page 14)	12
Total	46

Sophomore	Hours
Psychology 275 (Educ. Psy.)	5
Social Sciences (Core Requirements—See Page 14)	8
Physical Ed.	2
Thar. 220 or Speech 220 (Oral Inter.)	4
Speech 215 (Group Discussion)	4
Electives (Thar. 215, Thar. 100)	Min. 5
Electives (General)	17
Total	45

EDUCATION — GENERAL SPEECH (THEATER EMPHASIS)

Freshman	Hours
Speech 101, 102	6
English 111, 112, 115, 140 A, B, C, D	8
Natural Sciences/Math (At least 1 course in each) (Math 120 or higher)	12
Social Sciences (Core Requirements—Psy. 101 required)	8
Humanities (Core Requirements—See Page 14)	12
Total	46

Sophomore	Hours
Psychology 275 (Educ. Psy.)	5
Social Sciences (Core Requirements—See Page 14)	4
Physical Ed.	2
Thar. (Electives)	27
Electives	6
Total	44

Note: 30 hours required at 200 level for graduation.

EDUCATION — HEALTH

Freshman	Hours
English 111, 112, 115, 140 A, B, C, D	4
Speech (101, 102) one course	3
HPER 261 (Introduction to P.E. & Health)	2
Psychology 101	4
Sociology 101	4
Biology 111	5
Math (1 course) (Math 120 or higher)	4-5
Comparative Arts and/or Philosophy	8
HPER 227 (First Aid)	4
HPER 234 (Laboratory Experience in Phys. Ed.)	2
HPER 110 (3 Activity Classes)	3
HPER 295 (Independent Study)	2
Natural Sciences (Core Requirements—See Page 14)	4
Total	49-50

Sophomore	Hours
English (111, 112, 115, 140 A. B. C. D)	4
Psychology 275 (Educ. Psy.)	5
Comparative Arts and/or Philosophy	4
Biology 290B, 291B (Anatomy & Psysiology I, II)	10
HPER 202 (Personal and Community Health)	4
HPER 110 (3 Activity Classes)	3
HPER 204 (Drugs, Alcohol and Tobacco)	4
HPER Electives	11
Total	45

EDUCATION — PHYSICAL EDUCATION*

Freshman	Hours
English 111, 112, 115, 140 A, B, C, D	4
Speech (101, 102) one course	3
HPER 261 (Introduction to P.E. & Health)	2
Psychology 101	4
Social Science (Elective)	4
Biology 111	5
Math (1 course) (Math 120 or higher)	4-5
Comparative Arts and/or Philosophy	8
HPER 227 (First Aid)	4
HPER 234 (Laboratory Experience in Phys. Ed.)	2
HPER 110 (3 Activity Classes)	3
HPER 295 (Independent Study)	2
Natural Sciences (Core Requirements—See Page 14)	4
Total	49-50

Sophomore	Hours
English (111, 112, 115, 140 A, B, C, D)	4
Psychology 275 (Educ. Psy.)	5
Comparative Arts and/or Philosophy	4
Biology 290B, 291B (Anatomy & Physiology I, II)	10
HPER 202 (Personal and Community Health)	4
HPER 110 (3 Activity Classes)	3
HPER 250 (Recreation)	4
HPER 204 (Drugs, Alcohol and Tobacco)	4
HPER 239 Athletic Officiating Football	6
240 Athletic Officiating Basketball	
241 Athletic Officiating Baseball	
HPER 281 (Administration of Intramural Athletics	4
Total	48

*Ohio University: Geol. 0101 or Geog. 0101 and Chem. 0121 required additionally by the College of Health & Human Services.

EDUCATION — GENERAL SPEECH (SPEECH EMPHASIS)

Freshman	Hours
English 111, 112, 115, 140 A, B, C, D	8
Chemistry 141, 142, 143	12
*Math 201, 202, 203	15
Humanities (Core Requirements—See Page 14)	4
Social Sciences (Core Requirements—Psy. 101 required	4
Physical Education	2
Speech 101 or 102	3
Total	48

Sophomore	Hours
Physics 201, 202, 203	12
Humanities (Core Requirements—See Page 14)	8
Psychology 275 (Educ. Psy.)	5
Social Sciences (Core Requirements—See Page 14)	8
Electives (Sciences)	12
Total	45

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

EDUCATION — SOCIAL STUDIES*

Freshman	Hours
English 111, 112, 115, 140 A, B, C, D	8
Laboratory Sciences (two quarter sequence)	8-10
Mathematics (Math 120 or higher)	4-5
Humanities (Core Requirements—See Page 14)	12
History 101, 102, and 103	12
Psychology	4
Total	48-51

Sophomore	Hours
History 201, 202, and 203	12
Government 101 and 102	8
Humanities elective (200 level)	8
Geography 101	4
Psychology 275 (Educ. Psy.)	5
Sociology 101	4
Anthropology 201	5
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.

Note: 30 hours required at 200 level for graduation.

CONCENTRATION AREAS

Humanities/Fine Arts

Art
Communication (General)
Comparative Arts
*English
Journalism
Theater

*Students interested in transferring to Ohio University should consult with the Director of the O.U. Resident Credit Center for specific foreign language requirements.

PRE-ART MAJOR

Freshman	Hours
English 111, 112, 115, 140 A, B, C, D	8
Natural Sciences (Core Requirements—See Page 14)	12
Social Sciences (Core Requirements—See Page 14)	12
Art 100 (Fundamentals of Vis. Art)	4
Comparative Arts (101, 102, 103)	9
Physical Education	1
Total	46

Sophomore	Hours
Speech 101 or 102	3
Art 101, 102, 1043 (Studio Foundations)	15
Art 221, 222, 223, (Painting I, II, & III) and/or Art 231, 232, 233 (Ceramics I, II, & III	12
Art 271 (Life Drawing I)	4
Art 261 (Art History I)	4
Physical Education	1
Electives	4
Art Electives	8
Total	51

COMPARATIVE ARTS CONCENTRATION

Freshman	Hours
Speech I or Speech II	3
English (111, 112, 115 140 A, B, C, D)	8
Natural Sciences (Core Requirements—See Page 14)	12
Social Sciences (Core Requirements—See Page 14)	12
Comparative Arts 101, 102, 103	9
Physical Education	2
Total	46

Sophomore	Hours
Music (choose 15 hours)	15
Theater (choose 15 hours)	15
Thar. 100 level 9	
Thar. 200 level 6	
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—COMMUNICATIONS (GENERAL) MAJOR

Freshman	Hours
English 111, 112, 115, 140 A, B, C, D	8
Natural Sciences (Core Requirements—See Page 14)	12
Social Science (Core Requirements—See Page 14)	12
Humanities (Core Requirements—See Page 14)	12
Physical Education	2
Total	46

Sophomore	Hours
Speech 101 or 101	3
Jour. 105, or Speech 105 (Intro. to Mass Comm.)	4
Speech 215 (Group Discussion)	4
Thar. 210 or 215 (Acting), or Sp. 220/Thar. 220 (Oral Interp.)	3
Psychology 101 (Principles of Psychology	4
Electives	27
Total	45

PRE-ENGLISH MAJOR

Freshman	Hours
English 111, 112, 115, 140 A, B, C, D	8
Humanities (Core Requirements—See Page 14)	12
Language 111, 112, 113	12*
Natural Sciences (Core Requirements—See Page 14)	12
P. E. or Health	2
Total	46

Sophomore	Hours
Speech 102	3
English (201, 202, 203)	4
English (204, 205, 206)	4
English 225, 226	8
Language 211, 212, 213	12*
Social Science (Core Requirements—See Page 14)	12
English Elective	4
Total	47

*Dependent upon previous language experience and college to which the student transfers.

Note: 30 hours required at 200 level for graduation.

PRE-JOURNALISM

Freshman	Hours
English 111, 112, 115, 140 A, B, C, D	8
Government 102 (Logic)	4
Natural Sciences (Core Requirements—See Page 14)	12
Philosophy 101, 102, 103 or Lang. 111, 112, 113	12
Journalism 105 (Intro. to Mass Comm.)	4
Soc. 201 (Current Social Problems)	4
Physical Education	1
Total	45

Sophomore	Hours
Speech 102	3
Economics 101, 102	8
History 201, 202, 203 or History 111, 112, 113	12
Psychology 101	4
Journalism 231 (News Reporting)	4
Physical Education	1
Electives (Social Sciences)	13
Total	45

PRE-THEATER MAJOR

Freshman	Hours
English (111, 112, 115 140 A, B, C, D)	8
Natural Sciences (Core Requirements—See Page 14)	12
Social Sciences (Core Requirements—See Page 14)	12
Humanities (Core Requirements—See Page 14)	12
Physical Education	1
Total	45

Sophomore	Hours
Speech 101 or 102	3
3 English Classes at 200 level or above	12
Thar. Electives	29
Total	45

Note: 30 hours required at 200 level for graduation.

CONCENTRATION AREAS

Mathematics/Sciences

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

*Students interested in transferring to Ohio University should consult with the Director of the O.U. Resident Credit Center for specific foreign language requirements.

PRE-BOTONY 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
Total	51

Sophomore	Hours
Chemistry 205, 206, 207	12
Biology 211	5
Biology 225	5
Biology 210	5
Social Sciences (Core Requirements—See Page 14)	12
Humanities (Core Requirements—See Page 14)	12
Total	51

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

PRE-DENTISTRY MAJOR

Freshman	Hours
English 111, 112, 115, 140 A, B, C, D	8
Speech 102	3
Chemistry 141, 142, 143	12
*Math 201, 202	10
Biology 111, 113	11
Biology 225	5
Physical Education	2
Total	51

Sophomore	Hours
Chemistry 205, 206, 207 224	17
Physics 201, 202, 203	12
Social Sciences (Core Requirements—See Page 14)	12
Humanities Electives (Core Requirements—See Page 14)	12
Total	53

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

PRE-CHEMISTRY MAJOR

Freshman	Hours
English 111, 112, 115, 140 A, B, C, D	8
Speech 102	3
Chemistry 141, 142, 143	12
*Math Calculus 201, 202, 203	15
Humanities Elective (Core Requirements—See Page 14)	4
Social Sciences (Core Requirements—See Page 14)	4
Physical Education	1
Total	47

Sophomore	Hours
Chemistry 205, 206, 207	12
Physics 201, 202, 203	12
Humanities Elective (Core Requirements—See Page 14)	8
Social Sciences (Core Requirements—See Page 14)	8
Chemistry 224 & 225	10
Physical Education	1
Total	51

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

PRE-ENGINEERING MAJOR

Freshman **Hours**

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

PRE—FORESTRY MAJOR

Freshman	Hours
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
Total	51

Sophomore

See counselor for additional information regarding the Forestry School Transfer.

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

Note: 30 hours required at 200 level for graduation.

PRE-MEDICAL TECHNOLOGY MAJOR

Freshman	Hours
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
Total	46

Sophomore	Hours
Chemistry 205, 206, 207	12
Chemistry 224 & 225	10
General Genetics (Biology 225)	5
Social Sciences (Core Requirements—See Page 14)	12
Humanities Elective (Core Requirements—See Page 14)	12
Total	51

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

PRE-MEDICINE MAJOR

Freshman	Hours
English 111, 112, 115, 140 A, B, C, D)	8
Speech 102	3
Chemistry 141, 142, 143	12
Biology 111, 113	11
*Math 201, 202	10
Social Sciences (Core Requirements—See Page 14)	4
Physical Education	2
Total	50

Sophomore	Hours
Chemistry 205, 206, 207, 224	17
Biology 225	5
Physics 201, 202, 203	12
Social Sciences (Core Requirements—See Page 14)	8
Humanities Elective (Core Requirements—See Page 14)	12
Total	54

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

PRE-MICROBIOLOGY or PUBLIC HEALTH & SANITATION 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	5
Biology 225	5
Social Science	4
Total	53

Sophomore	Hours
Chemistry 205, 206, 207	17
Physics 201, 202, 203	12
Social Sciences (Core Requirements—See Page 14)	8
Humanities Elective (Core Requirements—See Page 14)	12
Physical Education	2
Total	51

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

Note: 30 hours required at 200 level for graduation.

PRE-OPTOMETRY MAJOR

Freshman	Hours
English 111, 112, 115, 140 A, B, C, D	8
Speech 102	3
Chemistry 141, 142, 143	12
Biology 111, 113	11
*Math 201, 202	10
Psychology 101	4
Physical Education	2
Total	50

Sophomore	Hours
Chemistry 205, 206, 207 224	17
Physics 201, 202, 203	12
Social Sciences (Core Requirements—See Page 14)	12
Humanities Elective (Core Requirements—See Page 14)	12
Total	53

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

PRE-PHARMACY MAJOR

Freshman	Hours
English 111, 112, 115, 140 A, B, C, D)	8
Speech 102	3
Chemistry 141, 142, 143	12
Biology 111, 113	11
*Math 201, 202	10
Economics 101	4
Total	48

Sophomore	Hours
Chemistry 205, 206, 207, 224	17
Physics 201, 202, 203	12
Social Sciences (Core Requirements—See Page 14)	8
Physical Education	2
Humanities (Core Requirements—See Page 14)	12
Total	51

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

PRE-PHYSICAL THERAPY MAJOR

Freshman	Hours
English 111, 112, 115, 140 A, B, C, D)	8
Chemistry 141, 142, 143	12
Biology 111, 113	11
Biology 225	5
Physical Education 202	4
Psychology 173	5
Math 150 or Psychology 261	5
Total	50

Sophomore	Hours
Biology 290B, 291B (Anatomy & Physiology I, II)	10
Speech 102	3
Sociology 101	4
Physics 201, 202	8
Psychology 275	5
Psychology 270	5
Humanities Elective (Core Requirements—See Page 14)	12
Social Sciences	4
Total	51

PRE-VETERINARY MAJOR

Freshman	Hours
English 111, 112, 115, 140 A, B, C, D	8
Speech 102	3
*Math 201, 202	10
Chemistry 141, 142, 143	12
Biology 111, 113	11
Zoology 225	5
Physical Education	2
Total	51

Sophomore	Hours
Chemistry 205, 206, 207, 224	17
Physics 201, 202, 203	12
Social Sciences (Core Requirements—See Page 14)	12
Humanities (Core Requirements—See Page 14)	12
Total	53

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

Note: 30 hours required at 200 level for graduation.

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 14)	8
Biology 225 — Genetics	5
Humanities Elective (Core Requirements—See Page 14)	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

*Students interested in transferring to Ohio University should consult with the Director of the O.U. Resident Credit Center for specific foreign language requirements.

PRE-BUSINESS ADMINISTRATION MAJOR

Freshman	Hours
English 111, 112, 115, 140 A, B, C, D	8
[1]Social Sciences	8
*Math 106 & 201	10
Economics 101, 102	8
Natural Sciences	12
Physical Education	2
Total	48

Sophomore	Hours
Humanities (Core Requirements—See Page 14)	12
Social Sciences	4
Business Law 250	4
Accounting 101, 102, 103	12
Speech 102 (Public Speaking)	3
QM 201 (Quantitative Methods) & Edpt 102	8
Electives [RMMT 0102 RMMT 0201 Suggested]	8
Total	51

[1]Recommended: Government 101, 102
Sociology 101,
Psychology 101, 131

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

PRE-HISTORY MAJOR

Freshman	Hours
English 111, 112, 115, 140 A, B, C, D	8
Philosophy 101 (Fundamentals)	4
History 111, 112, 113 (United States)	12
Foreign Language or Humanities/Arts	12
Natural Science (2 courses in the same area)	8
Physical Education	2
Total	46

Sophomore	Hours
Speech 102	3
History 201, 202, 203 (West Civ)	12
Philosophy 102 (Logic)	4
Humanities	4
Natural Science	4
History Electives	6
Electives	12
Total	45

GOVERNMENT MAJOR

Freshman	Hours
English 111, 112, 115, 140 A, B, C, D	8
Natural Science (Core Requirements—See Page 14)	12
Physical Education	2
Language or Humanities/Arts 200 level	12
Government 101, 102	8
Philosophy (102 or 103)	4
Total	46

Sophomore	Hours
Speech 102	3
History (111, 112, 113)	12
Any three courses from the following:	15
Govt. 201 (Urban Politics)	
Govt. 203 (Pol. in the American States)	
Govt. 205 (Appalachian Politics)	
Govt. 204 (Intro. to World Politics)	
Govt. 229 (Current Pol. Topics)	
Soc. Sci. 210 (Introduction to Urban Politics)	
Electives	12
Math 150 (Elem. Stat. for Soc. & Behavioral Sciences)	4
Total	46

*Total 20 hrs. needed in Humanities.

PRE-LAW MAJOR

Freshman	Hours
English 111, 112, 113, 115, 140 A, B, C, D	8
Philosophy 102 (Logic), 103 (Moral)	8
Business Law 250, 260	8
Lab Science (2 quarter sequence)	8
Government 101, 102	8
Speech 102 (Public Speaking)	3
Electives (200 level)	4
Total	47

Sophomore	Hours
History 111, 112, 113	12
Economics 101, 102	8
Psychology 101 (Introduction)	4
Physical Education	2
Electives (200 level courses)	19
Total	45

*Total 20 hrs. needed in Humanities.

Note: 30 hours required at 200 level for graduation.

PRE-PSYCHOLOGY MAJOR

Freshman

	Hours
English 111, 112, 115, 140 A, B, C, D	8
Humanities	8
Natural Sciences (Core Requirements—Biology 111, 112 recommended	12
Language or Humanities/Arts	12
Psychology 101	4
Math 150 (Elem. Stat. for Soc. & Behav. Science)	4
Total	48

Sophomore

	Hours
Speech 102	3
Philosophy	4
Sociology 101 (Prin. of Sociology)	4
Sociology 210 (Current Social Problems)	4
P.E. or Health	2-4
Psychology (Electives)	13-15
Electives	12
Total	45

PRE—SOCIOLOGY MAJOR

Freshman

	Hours
English 111, 112, 115, 140 A, B, C, D	8
Humanities (Core Requirements—See Page 14)	8
Natural Sciences (Core Requirements—Biology 111, 112 recommended	12
Language or Humanities/Arts	12
Sociology 101 (Principles of Sociology)	4
Physical Education	2
Total	46

Sophomore

	Hours
Speech 102	3
Humanities (Core Requirements—See Page 14)	4
Math 150 (Elem. Stat. for Soc. & Behav. Sciences	4
Psychology 101	4
Anthropology 201	4
Sociology Electives	5
Electives	13
Total	12
	45

PRE—SOCIAL WORK MAJOR

Freshman

	Hours
English 111, 112, 115, 140 A, B, C, D	8
Psychology 101 (General Psychology)	4
Psychology 173 (Child and Adolescent)	4
Sociology 101 (Principles of Sociology)	4
Natural Sciences (Core Requirements—Biology 111, 112 recommended)	12
Government (101 or 102)	4
Philosophy 102 (Moral Philosophy)	4
Physical Education	2
Electives	4
Total	46

Sophomore

	Hours
Speech 102	3
Math 150 (Elem. Stat. for Soc. & Behav. Sciences	4
Economics 101, 102	8
Anthropology 201	5
Sociology 202 (Intro. to Family Sociology)	4
Government 201 (Urban Politics) or 205 (Appalachian Politics)	4-5
Humanities (Core Requirements—See Page 14)	8
Electives (Humanities)	9-10
Total	46

Note: 30 hours required at 200 level for graduation.

BUSINESS TECHNOLOGIES

(ASSOCIATE OF APPLIED BUSINESS DEGREE)

ACCOUNTING

Business Management

Retail Management
Business Management
Banking/Finance
Real Estate

DATA PROCESSING AND COMPUTER TECHNOLOGY

Secretarial

General
Executive

ACCOUNTING TECHNOLOGY

CAREERS IN ACCOUNTING

Management (Industrial) Accounting

The management accountant is trained to determine the financial consequences of management decisions. The reports and analyses of the management accountant are essential ingredients of most management decisions about the finance investments and pricing policies. More than anyone else on the management team, the management accountant participates in virtually every phase of the business problem solving and decision making process. Because of the accountant's role in this process, he or she has many times advanced to a top management position within the company.

Governmental Accounting

All organizations need accounting information. Government and other non-profit organizations are no exception. The federal government hires accountants in most of its agencies. Three prominent agencies are the Internal Revenue Service, the General Accounting Office and the Defense Contract Audit Agency. State and local government units hire accountants in their tax divisions and in general accounting function. Schools and hospitals are major users of accounting services. Many opportunities exist for those interested in governmental accounting.

Public Accounting and the CPA

For the protection of the public the CPA is expected to possess certain professional qualifications. The Uniform CPA Examination is designed to measure the technical competency, the exercise of good judgment, and the understanding of professional responsibility of each man or woman who chooses this career in accounting. The public accountant is a true independent professional person with the stature as that of a doctor or lawyer. In public accounting many opportunities exist for professional growth whether you practice as a sole practitioner or as part of a larger firm.

FIRST YEAR CURRICULUM ACCOUNTING

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
	FIRST QUARTER				
Acct 0101	Accounting I	T	3	4	4
Engl 0111	Contemporary Writing Skills I	G	5	0	4
ExST 0120	Business Machines I	T	3	0	3
Math 0105	Business Math	B	5	0	4
BMNT0101	Introduction to Business	B	4	0	3
			20	4	18
	SECOND QUARTER				
Acct 0102	Accounting II	T	3	4	4
Engl 0112	Contemporary Writing Skills II	G	5	0	4
Econ 0101	Principles of Economics I	B	5	0	4
*Math 0101	Basic Algebra (See Advisor)	B	5	0	4
BMNT0201	Principles of Management	B	4	0	4
			22	4	20
	THIRD QUARTER				
Acct 0103	Accounting III	T	3	4	4
Acct 0104	Tax Accounting	T	3	3	4
Engl 0115	Comp. and Mass Comm.	G	5	0	4
	Business Elective**	T	3	3	4
Econ 0102	Principles of Economics II	B	5	0	4
			19	10	20

*Students with adequate high school mathematics should elect Math 0130 if intending to pursue advanced degrees.

SECOND YEAR CURRICULUM ACCOUNTING/PROFESSIONAL EMPHASIS

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
	FOURTH QUARTER				
Acct 0211	Intermediate Accounting I	T	3	4	4
Acct 0221	Cost Accounting I	T	3	4	4
Acct 0205	Principles of Finance	T	3	0	3
BusL 0250	Business Law I	B	4	0	4
Psyc 0101	Principles of Psychology	G	5	0	4
			18	8	19
	FIFTH QUARTER				
Acct 0212	Intermediate Accounting II	T	3	4	4
Acct 0222	Cost Accounting II	T	3	4	4
BMNT0242	Business Communications	G	3	2	3
EDPT 0102	BASIC Language I	T	2	3	3
Spch 0101	Speech I	G	3	0	3
			14	13	17
	SIXTH QUARTER				
Acct 0213	Intermediate Accounting II	T	3	4	4
Acct 0241	Auditing	T	3	3	3
EDPT	Elective**	T	3	4	4
Soci 0101	Principles of Sociology	G	5	0	4
BMNT0202	Personnel Management	T	3	0	3
			17	11	18

SECOND YEAR CURRICULUM ACCOUNTING/MANAGEMENT EMPHASIS

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
	FOURTH QUARTER				
Acct 0221	Cost Accounting I	T	3	4	4
Acct 0205	Principles of Finance	T	3	0	3
BusL 0250	Business Law I	B	4	0	4
Psyc 0101	Principles of Psychology	G	5	0	4
Acct 0211	Intermediate Accounting I	T	3	4	4
			18	8	19
	FIFTH QUARTER				
Acct 0222	Cost Accounting II	T	3	4	4
BusL 0260	Business Law II	B	4	0	4
EDPT 0102	BASIC Language I	T	2	3	3
Spch 0101	Speech I	G	3	0	3
	Business Elective**				4
			12	7	18
	SIXTH QUARTER				
Acct 0110	Payroll Records/Accounting	T	2	3	3
EDPT	Elective**	T	3	4	4
Soci 0101	Principles of Sociology	G	5	0	4
BMNT0202	Personnel Management	G	3	0	3
	Business Elective**				4-5
			13	7	18-19

**BUSINESS ELECTIVES (See Advisor):

Acct 0231 - Governmental Accounting (4)
BMNT 0102 - Marketing (4)
BMNT 0240 - Industrial Relations (4)
BMNT 0241 - Labor Relations (4)
EDPT 0103 - BASIC Language II (3)
EDPT 0104 - COBOL Programming I (4)
EDPT 0105 - COBOL Programming II (4)
EDPT 0201 - Systems Analysis & Design (4)
EsST 0101 - Typing I (3)
ExST 0121 - Introcution to Word Processing (4)
Math 0106 - Business Statistics (4)
Math 0131 - College Algebra II (4)
Math 0201 - Calculus I (5)
RMMT 0235 - Advertising (3)
QMet 0200 - Quantitative Methods I (4)
QMet 0201 - Quantitative Methods II (4)

BUSINESS MANAGEMENT TECHNOLOGY

With Majors in:

Retail Management
Banking/Finance
Business Management
Real Estate

The Associate Degree in Business Management

The Associate degree in Business Management is designed to provide the student with the knowledge, understanding, and skills required for entry-level management positions. The successful student is provided access to a career path leading to a variety of challenging and rewarding middle-management positions in business, service organization, industry, and financial institutions.

The Core Curriculum

Flexibility is a key feature of the Business Management curriculum.. Students will choose 18-24 credit hours within one of the four specialized areas, shown on the following page, as their area of emphasis. The remainder of the required 45 technical elective hours may be chosen from the remaining three areas of specialization or any other approved business courses offered at Shawnee State. This provides the student the opportunity to design a program compatible to their individualized interest and career goals.

BUSINESS MANAGEMENT CURRICULUM

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
	FIRST QUARTER				
Engl 0111	Contemporary Writing Skills I	G	5	0	4
Math 0105	Business Math	B	5	0	4
Acct 0101	Accounting I	B	3	4	4
	Technical Elective	T	4-6	4	4-6
			19-21	8	16-18
	SECOND QUARTER				
Engl 0112	Contemporary Writing Skills II	G	5	0	4
Acct 0102	Accounting II	T	3	4	4
Econ 0101	Principles of Economics I	B	5	0	4
	Technical Elective	T	4-6	4	4-6
			17-19	8	16-18
	THIRD QUARTER				
Engl 0115	Composition and Mass Comm.	G	5	0	4
Econ 0102	Principles of Economics II	B	5	0	4
	Technical Elective	T	8-10	8	8-10
			8-20	8	16-18
	FOURTH QUARTER				
Psyc 0101	Principles of Psychology	G	5	0	4
Engl 0121	Technical Writing	G	3	0	3
BusL 0250	Business Law I	B	4	0	4
	Technical Elective	T	4-8	8	6-8
			16-20	8	17-19
	FIFTH QUARTER				
Soci 0101	Principles of Sociology	G	5	0	4
BusL 0251	Business Law II	B	4	0	4
	Technical Elective	T	8-10	0	8-10
			17-19	0	16-18
	SIXTH QUARTER				
Spch 0101	Speech I	G	3	0	3
Psyc 0131	Human Adjustment	G	3	0	3
	Technical Elective	T	10-12	0	10-12
			16-18	0	16-18

Retail Management

Retailing involves all those activities related to the sale of consumer goods to consumers. The retailing segment of our economy provides jobs for about 17% of all employed people. These jobs are in small "mom and pop" stores and giant corporate chains in nearly every part of the U.S.

Successful management trainees in retailing can move into a number of challenging jobs. Department managers, assistant buyer or buyer, sales manager, merchandise manager, assistant store manager, and store manager are but a few of the possibilities.

If you would like an emphasis in Retailing in the Business Management program, you should take the following courses as part of your technical electives:

Course No.	Course	Class Hrs.	Lab Hrs.	Cr. Hrs.
RMMT 0103	Introduction to Retailing	5	0	4
RMMT 0104	Salesmanship	3	2	3
RMMT 0223	Retail Buying	4	0	4
RMMT 0225	Marketing Case Studies	4	0	4
BAFT 0105	Installment Credit	4	0	4
RMMT 0223	Sales Promotion	4	2	4
RMMT 0235	Advertising	3	2	3

Banking/Finance

The specialization in Banking and Finance is designed to provide individuals interested in a career in banking, savings and loan, credit unions, or credit departments of retail companies with the basic knowledge and skills required to gain employment and to advance to managerial level occupations. There are a large number of lower and middle level management positions in most financial institutions that a student would be qualified to fill with this specialty and the requested experience. Some of the managerial positions available in banks are loan officer, trust officer, collections officer, branch manager, and cashier.

The Banking and Finance curriculum parallels those required by the American Institute of Banking.

If your area of emphasis is Banking and Finance, you should plan to take the following courses as a part of technical electives required in the Business Management program:

Course No.	Course	Class Hrs.	Lab Hrs.	Cr. Hrs.
BAFT 0101	Banking and Finance I	2	3	3
BAFT 0102	Banking and Finance II	2	3	3
BAFT 0105	Installment Credit	4	0	4
BAFT 0106	Principles of Bank Operations	4	0	4
BAFT 0202	Home Mortgage Lending	3	3	4
BAFT 0204	Investments I	4	0	4
BAFT 0205	Investments II	4	0	4

Business Management

The Business Management option is a general business curriculum appropriate for three types of students.

First, the option provides a general business background for those who want to work in business but haven't decided on a specific career area. With some experience and, perhaps, additional specialized courses, this option can lead into management trainee programs in most types of business and industry.

Second, this option is appropriate for those with a technical degree or background who want to move into managerial positions.

Third, the curriculum provides an excellent business background for individuals who want to operate their own small business.

If you fit one of the above three categories, you should choose from the following courses for your technical electives:

Course No.	Course	Code	Class Hrs.	Lab Hrs.
BMNT 0101	Introduction to Business	4	0	3
BMNT 0102	Marketing	5	0	4
BAFT 0105	Installment Credit	4	0	4
BMNT 0240	Industrial Relations	4	0	4
BMNT 0241	Labor Relations	4	0	4
BMNT 0242	Business Communications	3	2	3
BMNT 0201	Principles of Management	4	0	4
BMNT 0202	Personnel Management	3	0	3
ACCT 0205	Principles of Finance	3	0	3
RMMT 0235	Advertising	3	2	3
RMMT 0225	Marketing Case Studies	4	0	4

Real Estate

If you have an interest in becoming a real estate agent, real estate broker, appraiser, or manager of a real estate firm, the real estate specialization of the Business Management program is for you.

Successful completion of specific courses in the curriculum meets the requirements of Ohio law and qualifies the student to sit for the Real Estate Salesman's and Real Estate Broker's examination. The curriculum also prepares the student for the Graduate Real Estate Institute examination.

If your area of emphasis is Real Estate, you should choose from the following courses for your technical electives:

Course No.	Course	Class Hrs.	Lab Hrs.	Cr. Hrs.
REST 0210	Real Estate Principles & Practices	4	0	4
REST 0211	Real Estate Brokerage	4	0	4
REST 0212	Real Estate Law	4	0	4
REST 0213	Real Estate Finance	4	0	4
REST 0214	Real Estate Appraisal	4	0	4
REST 0215	Special Topics in Real Estate	4	0	4

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.

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 indentifies 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 69 for the Real Estate Courses and their course description offered at Shawnee State.

NOTES

DATA PROCESSING AND COMPUTER TECHNOLOGY

The Data Processing and Computer Technology Associate Degree Program at Shawnee State Community 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 and 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.
	FIRST QUARTER				
Engl 0111	Contemporary Writing Skills I	G	5	0	4
Acct 0101	Accounting I	B	3	4	4
*Math	Math	B	5	0	4
EDPT 0101	Basic & Assembler Programmer	T	2	3	3
			15	7	15
	SECOND QUARTER				
Engl 0112	Contemporary Writing Skills II	G	5	0	4
Acct 0102	Accounting II	B	3	4	4
*Math	Math	B	5	0	4
EDPT 0102	BASIC Language I	T	2	3	3
EDPT 0106	RPG II Language	T	3	4	4
			18	11	19
	THIRD QUARTER				
Engl 0115	Composition and Mass Comm.	G	5	0	4
Acct 0103	Accounting III	T	3	4	4
Math 0106	Business Statistics	B	4	0	4
EDPT 0103	BASIC Language II	T	2	3	3
EDPT 0206	FORTRAN IV	T	3	4	4
			17	11	19
	FOURTH QUARTER				
Engl 0121	Technical Writing	G	3	0	3
Soci 0101	Principles of Sociology	G	5	0	4
BusL 0250	Business Law I	B	4	0	4
EDPT 0201	Systems Analysis & Design	T	3	3	4
EDPT 0104	COBOL Programming I	T	3	4	4
			18	7	18
	FIFTH QUARTER				
BMNT0201	Principles of Management	B	4	0	4
Econ 0101	Principles of Economics I	B	5	0	4
EDPT 0202	Computer Operations Manag.	T	3	0	3
EDPT 0203	Business Computer Projects I	T	3	4	4
EDPT 0105	COBOL Programming II	T	3	4	4
			18	8	19
	SIXTH QUARTER				
Spch 0101	Speech I	G	3	0	3
Psyc 0101	Principles of Psychology	G	5	0	4
EDPT 0204	Business Computer Projects II	T	3	4	4
EDPT 0205	Business Data Syst. & Comm.	T	2	3	3
EDPT 0207	PASCAL	T	3	4	4
	and/or				
EDPT 0261	Acctng. w/D.P. Applications	T	3	4	4
			16	11	18

*Math sequence for Data Processing: Basic Algebra, College Algebra I, College Algebra II, Trigonometry, and Analytic Geometry or Calculus I. Advisor to determine math sequence. Students may take any math sequence from the above list as long as they have 8 credit hours and 10 contact hours for the two-year degree.

SECRETARIAL TECHNOLOGY

With Majors In
Executive Secretarial (Shorthand Required)
General Secretarial (Non-Shorthand Program)

Job Opportunities

Positions available after completion of one of the Secretarial Majors 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.

FIRST YEAR CURRICULUM
GENERAL AND EXECUTIVE SECRETARIAL MAJORS

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
	FIRST QUARTER				
Engl 0111	Contemporary Writing Skills I	G	5	0	4
Math 0105	Business Mathematics	B	5	0	4
BMNT0101	Introduction to Business	B	4	0	3
ExSt 0101	Typing I	T	2	3	3
or					
	**Business Elective	T	3-4	2-3	3-4
*ExST0111	Shorthand I	T	3	2	3
Or					
	**Business Elective	T	3-4	2-3	3-4
			19-22	5-6	17-19

**Previous Typing and Shorthand Training

Students who have had prior instructions in typing and shorthand before coming to Shawnee State Community College may enroll automatically in Shorthand II and/or Typing II. The student must take a business elective in place of Typing I and Shorthand I. This substitution must be approved by the secretarial advisor.

	SECOND QUARTER				
Engl 0112	Contemporary Writing Skills II	G	5	0	4
ExST0102	Typing II	T	2	3	3
*ExST0112	Shorthand II	T	3	2	3
***Acct 0101	Accounting I	T	3	4	4
Soci 0101	Principles of Sociology	G	5	0	4
			18	9	18

***Accounting Substitution

Basic Accounting (Acct 0100), which is for CAREER ORIENTED STUDENTS ONLY, may be substituted for Acct 0101 (Accounting I). This substitution must be approved by the secretarial advisor.

		THIRD QUARTER				
Engl	0115	Composition & Mass Comm.	G	5	0	4
ExST	0120	Business Machines I	T	3	0	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
EDPT	0102	BASIC Language I	T	2	3	3
				18	10	19

SECOND YEAR CURRICULUM
GENERAL AND EXECUTIVE SECRETARIAL MAJORS

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
	FOURTH QUARTER				
ExST0231	Records Management	T	3	0	3
BusL 0250	Business Law I	B	4	0	4
ExST0222	Dictation & Transcription II	T	3	2	3
*ExST0214	Shorthand IV	T	3	2	3
ExST0104	Typing IV	T	2	3	3
ExST0241	Secretarial Practices I	T	3	2	3
			18	9	19

	FIFTH QUARTER				
ExST0242	Secretarial Practices II	T	3	2	3
Spch 0101	Speech I	G	3	0	3
Psyc 0101	Principles of Psychology	G	5	0	4
*ExST0215	Shorthand V	T	3	2	3
Econ 0101	Principles of Econ I	B	5	0	4
ExST0105	Typing V	T	2	3	3
			21	7	20

	SIXTH QUARTER				
Psyc 0173	Human Growth and Development	B	3	0	4
BMNT0202	Personnel Management	B	3	0	3
Acct 0110	Payroll Records & Accounting	T	2	3	3
*ExST0216	Shorthand VI	T	0	3	2
ExST0243	Secretarial Practices III	T	0	15	5
			8	21	16

*GENERAL SECRETARIAL MAJORS MUST ELECT BASIC BUSINESS COURSES INSTEAD OF SHORTHAND.

MEDICAL AND LEGAL SPECIALIZATION

If enough of the EXECUTIVE SECRETARIAL MAJORS want to specialize in legal and medical to warrant the formation of these classes, their last three quarters would adhere to the following format:

MEDICAL SPECIALIZATION

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
	FOURTH QUARTER				
MDST0241	Medical Secretarial Practices I	T	2	3	3
BusL 0250	Business Law I	B	4	0	4
MDST0111	Medical Shorthand I	T	2	3	3
MDST0221	Medical Dictation & Transcription I	T	3	2	3
MDST0223	Medical Terminology I	T	3	0	3
	General Studies Elective	G	0	0	3
			14	8	19
	FIFTH QUARTER				
MDST0242	Medical Secretarial Practices II	T	2	3	3
Spch 0101	Speech I	G	3	0	3
Psyc 0101	Principles of Psychology	G	5	0	4
MDST0224	Medical-Terminology II	T	2	3	3
MDST0112	Medical Shorthand II	T	2	3	3
			14	9	16
	SIXTH QUARTER				
MDST0222	Medical Dictation & Trans. II	T	5	0	4
BMNT0202	Personnel Management	B	3	0	3
ExST 0243	Secretarial Practices III	T	0	15	5
ExST 0121	Intro. to Word Processing	T	5	0	4
			13	15	16

LEGAL SPECIALIZATION

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
	FOURTH QUARTER				
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 & Trans. 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
	FIFTH QUARTER				
BusL 0260	Business Law II	B	4	0	4
Spch 0101	Speech I	G	3	0	3
Psyc 0101	Principles of Psychology	G	5	0	4
LgST 0224	Legal Terminology & Judicial Procedures II	T	2	3	3
LgST 0112	Legal Shorthand II	T	2	3	3
			16	6	17
	SIXTH QUARTER				
LgST 0222	Legal Dictation & Trans. II	T	5	0	4
BMNT0202	Personnel Management	B	3	0	3
ExST 0243	Secretarial Practices III	T	0	15	5
ExST 0121	Intro. to Word Processing	T	5	0	4
			13	15	16

ALLIED HEALTH TECHNOLOGIES

(ASSOCIATE OF APPLIED SCIENCE DEGREE)

Associate Degree Nursing
Dental Hygiene
Medical Laboratory
Radiologic Technology
Respiratory Technology

CERTIFICATE PROGRAMS

(One Year)

Emergency Medical Technician — Paramedic
Respiratory Therapy Technician
Practical Nursing

ALLIED HEALTH TECHNOLOGIES

ADMISSION PROCEDURES

All Applicants to Allied Health Programs must submit:

1. Application and non-refundable $15 Application Fee
2. High School Transcript by the school or copy of GED with scores forwarded to the Director of Admissions.
3. Letters of recommendation from two (2) persons who are not relatives forwarded to the Director of Admissions.

Applicants to Allied Health programs who are currently enrolled at Shawnee State Community College must obtain a grade point average of 2.0 in courses which are required of the degree program.

Additional requirements by program are:

DENTAL HYGIENE:

1. Complete the Autobiography Sheet and return to the Director of Admissions.
2. High school average of at least 2.5 on a 4.0 scale.
3. Complete algebra, biology, and chemistry on high school or college level.
4. A natural science score of at least 16 on ACT (results forwarded to the Director of Admissions.)
5. Conference with program director when file is complete and criteria is met.
6. After the conference, the student may be required to do a three-day observation in a dentist's office and send a summary of the observation to the Director of Dental Hygiene. The Director may also request that an acknowledgment be submitted by the dental office involved.
7. Applicants will be accepted on the condition that the required physical examination is satisfactory. This is to be done by the applicant's physician prior to August 1 with the results forwarded to the Director of Dental Hygiene.

MEDICAL LABORATORY;

1. Write a brief description of abilities and background, including outstanding accomplishments, and explain why you want to take the program. This should not exceed three typewritten pages. Forward this to the Director of Admissions.
2. High school average of at least 2.5 on a 4.0 scale.
3. Complete algebra, biology, and chemistry on a high school or college level.
4. A natural science score of at least 16 on the ACT (results forwarded to the Director of Admissions.)
5. Conference with program director when file is complete and criteria is met.
6. Applicants will be accepted on the condition that the required physical examination is satisfactory. This is to be done by the applicant's physician prior to August 1 with the results forwarded to the Director of Dental Hygiene.

RADIOLOGIC TECHNOLOGY OR RESPIRATORY THERAPY TECHNICIAN:

1. Complete the Autobiography Sheet and return to the Director of Admissions.
2. High school average of at least 2.5 on a 4.0 scale.
3. Complete algebra, biology, and chemistry on high school or college level.
4. A natural science score of at least 16 on ACT (results forwarded to the Director of Admissions.)
5. Conference with program director when file is complete and criteria is met.
6. Applicants will be accepted on the condition that the required physical examination is satisfactory. This is to be done by the applicant's physician prior to August 1 with the results forwarded to the Director of the appropriate program (Radiologic or Respiratory.)

ASSOCIATE DEGREE NURSING:

1. High school average of at least 2.5 on a 4.0 scale.
2. High school level algebra, biology, and chemistry with a grade of "C" or better.
3. Complete the Autobiography Sheet and return to the Director of Admissions.
4. ACT scores of 16 or better in English, math, social studies, and natural sciences with a composite of 16 or better (results forwarded to the Director of Admissions.)
5. Conference with program director when file is complete and criteria is met.
6. Applicants will be accepted into the program pending the results of a physical examination.

PRACTICAL NURSING:

1. High school averge of at least 2.0 on a 4.0 scale.
2. Scores above the 40th percentile in all areas of the Entrance Examination.
3. Complete the Autobiography Sheet and return to the Director of Admissions.
4. Applicants will be accepted on the condition that the required physical examination is satisfactory. This is to be done by the applicant's physician during the month preceding the starting date. An appropriate form will be provided.
5. Applicants should have strong background in science and math.

EMERGENCY MEDICAL TECHNICIAN-PARAMEDIC

1. Send a copy of current driver's license and copy of EMT-A license to the Director of Admissions.
2. If applicant is a certified EMT-A, one letter of recommendation should be from the applicant's squad chief.
3. Applicant must take a proficiency exam offered by the College and receive a 70% or better to be eligible for the Advanced EMT-A class.
   a. If applicant is a state certified EMT-A, he may begin the second quarter after taking a proficiency exam offered by the college and receiving a score of 80% or above.
   b. If applicant is not a state certified EMT-A, he must begin the first quarter, taking and passing the EMT-A course and EMT-A orientation course offered by the College. Before entering the second quarter, he must take a proficiency exam offered by the College and receive a score of 80% or above.
   c. If applicant is a certified Advanced EMT-A who has passed the Advanced EMT-A courses with an 80% or above, he must take a proficiency exam offered by the College and receive a score of 80% or above. He may then begin the second quarter by taking Paramedic Skills II.
   d. If applicant is a certified Advanced EMT-A who has passed the Advanced EMT-A course with a 79% or below, he must take a proficiency exam offered by the College and receive a score of 80% or above. He may then begin the second quarter by taking Paramedic Skills I and II.
4. Complete the Autobiography Sheet and return to the Director of Admissions.
5. Applicant must sign an agreement for a Bureau of Criminal Investigation check.
6. Conference with program director when file is complete and criteria is met.
7. Completion of physical examination.
8. After completion of the program, must take and pass an Advanced Cardiac Life Support Examination.
9. A grade of "C" or better in high school biology or 2.0 or better in a developmental biology course is necessary.

Please Note: It is important to understand that fulfilling the above criteria does not automatically guarantee the applicant acceptance into the particular program. All interviewed applicants are subsequently ranked. Since the number of qualified applicants exceeds the number of vacancies, the director and admissions committee reserves and exercises the right to select only those applicants that exhibit the most promise of academic and professional success.

DENTAL HYGIENE

Dental hygiene is a vital health service component of dentistry which emphasizes oral health and the prevention of oral diseases.

Most dental hygienists are employed in private dental offices or clinics and work under the supervision of the dentist. The hygienist's main function is performing oral prophylaxis — the scaling and polishing of the patient's teeth to remove soft and hard deposits. They also perform other procedures: dental charting and oral examination, exposing and processing dental radiographs, fluoride treatments, and preliminary impressions for study models. The hygienist also places a great deal of emphasis on dental health education — home care, brushing/flossing, and diet/nutritional counseling.

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 student's teeth and reporting 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.

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.

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
	FIRST QUARTER				
Chem 0121	Inorganic Chemistry	B	3	3	4
DtHy 0121	Clinical Dental Hygiene I	T	2	6	4
Biol 0290	Anatomy & Physiology I	B	4	3	5
DtHy 0111	Oral Anatomy I	T	3	0	3
			12	12	16
	SECOND QUARTER				
Chem 0122	Organic Chemistry	B	3	3	4
DtHy 0122	Clinical Dental Hygiene II	T	2	6	4
Biol 0291	Anatomy & Physiology II	B	4	3	5
DtHY 0101A	Radiology I	T	1	0	1
DtHy 0112	Oral Anatomy II	T	3	0	3
			13	12	17
	THIRD QUARTER				
DtHy 0202	Periodontics	T	3	0	3
DtHy 0101B	Radiology II	T	1	3	2
DtHy 0102	Gen & Oral Histology and Embryology	T	3	0	3
DtHy 0123	Clinical Dental Hygiene III	T	1	8	4
Biol 0235	Microbiology		4	3	5
			12	14	17
	SUMMER QUARTER				
DtHy 0124	Clnical Dental Hygiene IV	T	2	12	6
DtHy 0103	Dental Materials	T	3	6	5
DtHy 0205	Dental Health Education	T	3	0	3
Engl 0111	Contemp. Writing Skills I	G	5	0	4
			13	18	18
	FOURTH QUARTER				
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
Engl 0112	Contemp, Writing Skills II	G	5	0	4
			17	12	19
	FIFTH QUARTER				
DtHy 0204	Pharmacology and 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
DtHy 0250*	Expanded Functions I (Laboratory fee required)	T	2	6	4
	SIXTH QUARTER				
DtHy 0127	Clinical Dental Hygiene VII	T	1	12	5
Psyc 0101	Principles of Psychology	G	5	0	4
	Electives				3
Engl 0115	Comp. & Mass. Comm.	G	5	0	4
			11	12	16
DtHy 0251*	Expanded Functions II (Laboratory fee required)	T	0	8	2

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.

***Expanded Functions Program**

The Expanded Functions Program is a two-quarter elective program consisting of DtHy 0250 and DtHy 0251. This program prepares the dental auxiliary to perform placement of restorations, rubber dam, dental bases, and to utilize four-handed dentistry techniques under a dentist's supervision. The student must also file for admission into this program. (See Program Director.) This program series will be offered each winter and spring quarter to a limited class enrollment.

MEDICAL LABORATORY TECHNOLOGY

Medical Laboratory Technology, a medically oriented discipline, occupies an essential and responsible position in laboratory medicine. Physicians rely on the laboratory staff and the results of their analyses to aid them in determining the presence and extent of disease, as well as implications pertaining to the cause of disease. They also provide data needed to evaluate the effectiveness of treatment and patient management. Researchers in the medical sciences also depend on the special skills of medically oriented laboratory workers for analyses and observations which are essential to the progress of their research.

The Associate degree Medical Laboratory Technician works under the supervision of a pathologist or technologist and is qualified to perform a wide variety of analytical works on patient specimens in the areas of hematology, chemistry, microbiology, immunoserology, immunohematology, and urinalysis. Individuals must be accurate and conscientious, with manual dexterity and an interest in science, have an inquiring mind, and a recognition of their responsibility for human lives.

The Associate degree Medical Laboratory Technology program is designed to provide basic educational background and the clinical environment in which students can acquire knowledge, skills, and competence to properly perform routine and selected specialized analyses in a clinical laboratory.

The curriculum consists of eight academic quarters, which includes six quarters of general education; general sciences, including clinical laboratory and related subjects; and two quarters of internship in one of the affiliated hospitals.

Certification

Upon successful completion of this program, the student will receive the Associate of Applied Science degree and is eligible to take the American Society of Clinical Pathologist's Board of Registry Examination to obtain certification as a Medical Laboratory Technician MLT (ASCP) or to take the National Certification Agency for Clinical Laboratory Personnel Examination to obtain certification as a Clinical Laboratory Technician CLT (NCA).

Accreditation

The MLT-AD program is fully accredited by the Committee on Allied Health Education and Accreditation of the American Medical Association, in collaboration with the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS).

Employment Opportunities

Positions for certified Medical Laboratory Technicians are available in hospitals laboratories, independent laboratories, public health facilities, the armed forces, physicians' offices and clinics, pharmaceutical and industrial firms, research and educational institutions, and as technical and sales representatives for biomedical supplies and instruments.

Scholarships

A Medical Laboratory Scholarship covering two-year tuitions is awarded each year to a high school graduate who demonstrates academic excellence and has been accepted into the Medical Laboratory Technology program.

MEDICAL LABORATORY CURRICULUM

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
	FIRST QUARTER				
Engl 0111	Contemporary Writing Skills I	G	5	0	4
*Math	Math	B	5	0	4
**Chem0121	Inorganic Chemistry	B	3	3	4
Biol 0290	Anatomy & Physiology I	B	4	3	5
MLTC0111	Med. Tech. Orientation II	T	1	1	1
			18	7	18
	SECOND QUARTER				
Engl 0112	Contemporary Writing Skills II	G	5	0	4
*Math	Math	B	5	0	4
Chem 0122	Organic Chemistry	B	3	3	4
Biol 0291	Anatomy & Physiology II	B	4	3	5
MLTC 0112	Med. Tech. Orientation II	T	1	1	1
			18	7	18
	THIRD QUARTER				
Chem 0123	Physiological Chemistry	B	3	3	4
Biol 0235	Microbiology	B	4	3	5
MLTC 0209	Hematology I	T	2	6	4
MLTC 0201	Urinalysis	T	2	3	3
			11	15	16
	FOURTH QUARTER				
Engl 0121	Technical Writing	G	4	0	3
MLTC 0211	Instrumentation	T	2	6	4
Spch 0101	Speech I	G	3	0	3
MLTC 0207	Clinical Bacteriology	T	3	6	5
			12	12	15
	FIFTH QUARTER				
MLTC 0212	Clinical Chemistry I	T	2	6	4
MLTC 0210	Hematology II	T	2	6	4
MLTC 204	Parasitology	T	1	2	1
MLTC 0202	Immunoserology	T	3	3	4
Psyc 0101	Principles of Psychology	G	5	0	4
			13	17	17
	SIXTH QUARTER				
MLTC 0213	Clinical Chemistry II	T	2	6	4
Soci 0101	Principles of Sociology	G	4	0	4
MLTC 0203	Blood Banking	T	2	6	4
MLTC 0205	Mycology	T	1	2	1
			9	14	13
	SEVENTH & EIGHTH QUARTERS				
MLTC 0220	Clinical Practicum	T	0	40	13

*Math 101, 106, 108, 109, 130, 131, 201, and 202.

Refer to course descriptions and prerequisites on Page 80. Math sequence is determined by proficiency testing and by approval of program director.

**Students who are planning to continue their education toward a Baccalaureate degree are advised to register for Chem 141, 142.

NOTE:

1. Only those students who have been officially accepted into the program or received program director approval may take the courses beginning with the MLTC prefixes.
2. Eligibility for clinical practicum, as well as to continue in the Medical Laboratory Technology program, requires that students must maintain a 2.000 accumulative G.P.A. and a minimum of a "C" in all MLTC courses.

NOTES

RADIOLOGIC TECHNOLOGY

The Radiologic Technology curriculum will prepare the graduate as a Radiographer. The Radiographer works under the supervision of a medical radiologist or physician in hospital radiology departments, clinics, commercial x-ray laboratories, or doctor's offices. The responsibility of the radiographer 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 intrepretations.

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, supporting technical courses, supporting technical courses, and specialized courses in radiography. The second year of the program consists of participation in clinical education scheduled in the affiliated hospitals along with advanced radiologic technology courses.

Experience in the radiology departments of the affiliated hospitals provides the opportunities for the practical application of knowledge learned in the college classroom. This experience in the hospital is a vital part of the program, since it enables the student to 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.

RADOLOGIC TECHNOLOGY CURRICULUM

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
	FIRST QUARTER				
Rd1T 0200	Basic Patient Care	T	3	2	3
Rd1T 0101	Radiologic Technology I	T	3	2	3
Biol 0290B	Anatomy & Physiology I	B	4	3	5
Engl 0111	Contemp. Writing Skills I	G	5	0	4
Math 0108	Allied Health Math I	B	5	0	4
			20	7	19
	SECOND QUARTER				
Rd1T 0102	Radiologic Technology II	T	2	2	2
Rd1T 0201	Radiographic Exposure	T	3	2	2
Biol 0291B	Anatomy and Physiology II	B	4	3	5
Engl 0112	Contemp. Writing Skills II	G	5	0	4
Psci 0105	Physical Science	B	4	3	5
			18	13	19
	THIRD QUARTER				
Rd1T 0103	Radiologic Technology III	T	3	2	3
Rd1T 0110	Radiologic Electricity —Electronics	T	3	1	3
Chem 0121	Inorganic Chemistry	B	3	3	4
Engl 0115	Comp. & Mass Comm.	G	5	0	4
Rd1T 0211	Clinical Experience I	T	0	16	2
			14	22	16
	FOURTH QUARTER				
Rd1T 0104	Radiologic Technology IV	T	3	2	3
Rd1T 0111	Radiologic Physics	T	3	3	4
Psyc 0101	Principles of Psychology	G	5	0	4
Engl 0121	Technical Writing	G	3	0	3
Rd1T 0212	Clinical Experience II	T	0	16	2
			14	21	16
	FIFTH QUARTER				
Rd1T 0105	Radiologic Technology V	T	4	0	4
Rd1T 0213	Clinical Experience III	T	0	32	6
Rd1T 0221	Seminar I (Processing)	T	2	0	2
			6	32	12
	SIXTH QUARTER				
Rd1T 0106	Radiologic Technology VI	T	4	0	4
Rd1T 0214	Clinical Experience IV	T	0	32	6
Rd1T 0222	Seminar II	T	2	0	2
			6	32	12
	SEVENTH QUARTER				
Rd1T 0107	Radiologic Technology VII	T	4	0	4
Rd1T 0215	Clinical Experience V	T	0	24	4
Rd1T 0223	Seminar III	T	2	0	2
Soci 0101	Principles of Sociology	G	5	0	4
			11	24	14
	EIGHTH QUARTER				
Rd1T 0108	Radiologic Technology VII	T	4	0	4
Rd1T 0216	Clinical Experience VI	T	0	24	0
Rd1T 0224	Seminar IV	T	2	0	2
Spch 0101	Speech I	G	3	0	3
			9	24	13

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 Rd1T prefix.

RESPIRATORY THERAPY TECHNICIAN/TECHNOLOGY PROGRAMS

Respiratory Therapy is an allied health specialty employed under medical direction in the treatment, management, control, diagnostic evaluation, and care of patients with deficiencies and abnormalities associated with the process of breathing. At present the field of respiratory therapy has two levels of practitioners, the therapist and technician levels. The respiratory therapist is a graduate of a two-year educational program, the respiratory therapy technician is a graduate of a one-year program. Respiratory therapists and technicians are respected members of the medical community involved in a wide variety of life-saving and life-supporting situations. Working side by side with physicians, nurses, and others on the health care team they care called upon to treat patients ranging in age from newborns to senior citizens. Their duties range from the daily administration of such therapies as oxygen administration, humidification and nebulization, and postural drainage of lung secretions to the use of highly sophisticated equipment, monitoring devices, and techniques in around-the-clock care to individuals who otherwise would not be able to survive such life-threatening conditions as head injuries and chest wounds. Other practitioners spend all or part of their time working in laboratories where they help evaluate the type and extent of a patients' illness and the effectiveness of the patient's current treatment. Other practitioners work in specialized areas of health care including education, management, home care, sales, research, and specialized areas of patient care such as care of the newborn infant.

Respiratory Therapy Technician Program Description

The one-year (four-quarter) curriculum of the Respiratory Therapy Technician Program is designed to prepare selected individuals to qualify as contributing members of the health care team. Individuals enrolled in the program participate in classroom and laboratory learning experiences at the college in order to gain the conceptual understanding of the practice of respiratory therapy. Students also participate in clinical learning experineces at hospitals in this area to develop their clinical skills through application of these concepts.

After successful completion of the program, graduates are eligible to take the entry-level certification examination administered by the National Board for Respiratory Care. Successful completion of that examination entitles the individual to the Certified Respiratory Therapy Technician (C.R.T.T.) credential.

Respiratory Therapist Program Description

In 1980 the Ohio Board of Regents approved the creation of a second year of formal education in respiratory therapy at Shawnee State Community College to further the educational opportunities for the qualified respiratory therapy technician. To be considered for admission into the second year of study the applicant must have successfully completed the first four-quarter sequence of study, received the Certificate of Achievement, and completed one year of full-time profession-related employment. The graduate of the two-year (eight quarter) program will receive the Associate of Applied Science degree and become eligible for the registry examinations administered by the National Board for Respiratory Care. Successful completion of these examinations (two) and the entry-level certification examination entitles the individual to the Registered Respiratory Therapist (R.R.T.) credential. Further educational opportunities are also available to the graduate from the Bachelor of Science or Masters degree from Ohio University.

Accreditation

The Respiratory Therapy Technician Program is fully accredited by the American Medical Association. As of January, 1983, accreditation by the American Medical Association was pending for the two-year Respiratory Therapist Program.

Employment Opportunities

Regardless of which level of education or credentialing you choose to pursue, you will find many employment opportunities in the field. The profession has grown so quickly since its inception in the late 1940s that demand for manpower has exceeded supply, making the respiratory care practitioner's talents a precious commodity in most medical institutions. In addition, many clinics, nursing homes, and home care programs are beginning to realize the potential benefits of having a trained respiratory therapist or technician on staff. Coupled with the ever-increasing number of cardiopulmonary disorders being diagnosed, these demands ensure that individuals who enter the profession will enjoy good career opportunities.

RESPIRATORY THERAPY TECHNICIAN/TECHNOLOGY CURRICULUMS

RESPIRATORY THERAPY TECHNICIAN CURRICULUM

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
	FIRST QUARTER				
Math 0108 OR	Allied Health Math I	B	5	0	4
Math 0101	Basic Algebra				
Chem0121	Inorganic Chemistry	B	3	3	4
Biol 0200	Anatomy and Physiology	B	4	3	5
*RpTT0101	Intro. to Resp. Therapy	T	1	0	1
RpTT0102	Fundamentals of Resp. Care	T	4	3	5
RpTT0110	Clinical Practice I	T	0	4	1
			17	13	20
	SECOND QUARTER				
Engl 0111	Contemp. Writing Skills I	G	5	0	4
RpTT 0121	Cardiopulmonary Physiology	T	5	0	5
RpTT 0111	Clinical Practice II	T	0	24	6
RpTT 0202	Pharmacology	T	4	0	4
			14	24	19
	THIRD QUARTER				
RpTT 0112	Clinical Practice III	T	0	24	6
RpTT 0201	Respiratory Pathophysiology	T	5	0	5
RpTT 0211	Respiratory Critical Care I	T	2	3	3
Biol 0235A	Microbiology	B	3	3	4
			10	30	18
	FOURTH QUARTER				
RpTT 0113	Clinical Practice IV	T	0	32	8
RpTT 0212	Respiratory Procedures II	T	3	3	4
RpTT 0211A	Respiratory Critical Care II	T	2	0	2
			5	35	14

*This course will be offered during the summer quarter prior to the beginning of the program. Students will be strongly encouraged to enroll in this course at this time to reduce the credit hour load during the Fall quarter and to facilitate their understanding of the program content and the scope of the profession of respiratory therapy.

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

RESPIRATORY THERAPY TECHNOLOGY

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
	FIFTH QUARTER				
Biol 0290	Anatomy and Physiology	B	4	3	5
RpTT 0213	Clinial Application of Respiratory Care	T	2	3	3
			6	6	8
	SIXTH QUARTER				
Biol 0291	Anatomy & Physiology	B	4	3	5
Phys 0201	Physics (Mechanics)	B	3	3	4
RpTT 0214	Clinical Practice V	T	0	8	2
RpTT 0215	Neonatal Respiratory Care	T	2	3	3
RpTT 0216	Clinical Practice VI	T	0	8	2
			9	25	16
	SEVENTH QUARTER				
Engl 0121	Technical Writing	G	3	0	3
RpTT 0217	Advanced Cardiopulmonary and Renal Physiology	T	4	0	4
RpTT 0218	Resp. Therapy Departmental Organ. and Administration	T	2	3	3
RpTT 0219	Pulmonary Diagnostics	T	2	3	3
RpTT 0220	Clinical Practice VII	T	0	8	2
			11	14	16
	EIGHTH QUARTER				
RpTT 0221	Topics in Clinical Medicine	T	3	0	3
RpTT 0222	Ethical and Legal Considerations	T	2	0	2
RpTT 0223	Respiratory Therapy Seminar (Optional)	T	2	0	2
	Humanities-Soci. Elective.	G	5	0	4
			10-12	0	9-11

Please Note: Only those students who have been officially accepted into the program or have received permission from the program director may take the courses beginning with the RpTT prefix.

Program is designed to begin in the summer quarter. Courses may be taken on a part-time basis to fit the individual students' needs. However, the RpTT 0214, 0215, and 0216 sequence must be taken in the Fall quarter and the RpTT 0219-0220 sequence must be taken in the Winter quarter.

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, doctors' offices and clinics, and selected public health agencies.

Accreditation

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

ASSOCIATE DEGREE NURSING CURRICULUM

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
	FIRST QUARTER				
ADNr0101	Nursing I	T	5	9	8
Biol 0290B	Prin. of Anat. & Physiology I	B	4	3	5
*Engl 0111	Contemp. Writing Skills I	G	5	0	4
			14	12	17
	SECOND QUARTER				
ADNr 0102	Nursing II	T	5	9	8
Biol 0291B	Prin. of Anat. & Physiology II	B	4	3	5
Psyc 0101	Prin. of Psychology	G	4	0	4
			13	12	17
	THIRD QUARTER				
ADNr 0103	Nursing III	T	5	9	8
Psci 0105	Physical Science	B	4	3	5
Psyc 0173	Human Growth & Devel.	G	4	0	4
			12	15	17

SUMMER QUARTER—Optional: The following courses may be taken summer or during second year as designated.

Biol 0235B	Microbiology I or Fourth Quarter	B	3	4	5
Soci 0101	Prin. of Sociology or Fifth Quarter	G	4	0	4
*Engl 0112	Contemp. Writing Skills II or Fifth Quarter	G	5	0	4
			12	4	13

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
	FOURTH QUARTER				
ADNr 0201	Nursing IV (5 weeks)	T	6	12	5
ADNr 0202	Nursing V (5 weeks)	T	6	12	5
ADNr 0203	Nursing VI	T	2	0	2
Biol 0235	Microbiology I	B	4	3	4
			12/wk	15/wk	17
	FIFTH QUARTER				
ADNr0204	Nursing VII	T	6	12	10
Soci 0101	Prin. of Sociology	G	4	0	4
*Engl 0112	Contemp. Writing Skills II	G	5	0	4
			15	12	18
	SIXTH QUARTER				
ADNr0205	Nursing VIII	T	4	15	9
ADNr0206	Nursing IX	T	3	0	3
**Required Elective		G	4/5		4/5
			11/12	15	16/17

*English sequence for Associate Degree Nursing:
English 111, 112, 115, 140 A, B, C, or D; advisor will determine English sequence.

****ONE** of the following electives:
Psych 0270
HPER 0202 or HPER 0227
Soci 0201 or Soci 0202
or Soci 0203 or Soci 0205
or Soci 0210

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.

All suggested or equivalent courses listed for the first four quarters must be completed prior to continuing into the second year.

PRACTICAL NURSING

Nursing is considered a personal service to a patient, planned to consider the individual personality as well as the 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.

Accreditation

The Practical Nursing Program has full approval by the State of Ohio Board of Nursing Education and Nurse Registration and is accredited by the North Central Association of Colleges and Secondary Schools.

PRACTICAL NURSING CURRICULUM

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Clin. Hrs.	Cr. Hrs.
	FIRST QUARTER					
LPNr 0101	Body Struc. & Function	B	4	2	0	4
LPNr 0111	Practical Nursing 1	T	6	4	12	10
Psyc 0101	Prin. of Psychology	G	5	0	0	4
			15	6	12	18
	SECOND QUARTER					
LPNr 0110	Nutrition	B	2	0	0	2
*LPNr 0112	Practical Nursing II	T	8	5	14	6
*LPNr 0115	Practical Nursing V	T	9	5	14	6
Soci 0101	Prin. of Sociology	G	5	0	0	4
			24	10	28	18
	THIRD QUARTER					
*LPNr 0113	Practical Nursing III	T	12	2	14	8
*LPNr 0116	Practical Nursing VI	T	12	2	14	8
			24	4	28	16
	FOURTH QUARTER					
*LPNr 0114	Practical Nursing IV	T	12	2	21	9
			12	2	21	9

*Half-quarter courses

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

EMT — PARAMEDIC PROGRAM

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 functions of an EMT-A, under the revised code of Ohio, the paramedic is further certified to perform the following life support or intensive care techniques: cardiac monitoring, defibrilation, intubation, and adminstration of appropriate drugs and intravenous fluids. These functions are performed in conjunction with a cooperating licensed medical doctor, doctor of ostepathic medicine and surgery, or a physician advisory board.

Accreditation

The EMT-A program has received full accreditation from Trade and Industry Education, the organization responsible for certification of Ohio's EMT-A's.

The Paramedic program has received full accreditation from the Ohio Board of Regents, the organization responsible for certification of Ohio EMT-P's. OBR Cert. No. 5-3-005.

EMERGENCY MEDICAL TECHNICIAN — PARAMEDIC CURRICULUM

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Clin. Hrs.	Cr. Hrs.
	FIRST QUARTER					
Engl 0111	Contemp. Writing Skills	G	5	0	0	4
EMTA 0101	EMT Orientation	T	2	0	0	2
EMTA 0102	Emergency Victim Care	T	8	0	0	8
Biol 0290B	Anatomy & Physiology	B	4	3	0	5
			19	3	0	19
	SECOND QUARTER					
Engl 0112	Contemp. Writing Skills II	G	5	0	0	4
Biol 0291B	Anatomy & Physiology II	B	4	3	0	5
EMTP 0101	Paramedic Skills I	T	3	3	3	5
EMTP 0102	Paramedic Skills II	T	2	3	0	3
			14	9	3	17
	THIRD QUARTER					
RMMT0201	Prin. of Management	B	4	0	0	4
*EMTP 0103	Paramedic Skills III	T	8	3	3	11
			12	3	3	15
	FOURTH QUARTER					
	Elective **	G	3-4	0	0	3-4
*EMTP 0104	Paramedic Skills IV	T	8	0	6	10
			11-12	0	6	13-14

*Includes on squad experience by arrangement. Paramedic Skills III includes 30 hours on squad. Paramedic Skills IV includes 60 hours on squad.

**Should be either Speech, Sociology, or Psychology.

EMTA 0105	Advanced EMT-A Course	T	3	2	3	4

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.

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.

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.

SERVICE TECHNICIAN (dealership) — Utilizes modern test equipment to diagnose and correct malfunctions on the new family of sophisticated automobiles.

MANAGER/TECHNICIAN (self-employed) — Establishes and manages a specialty shop or general service facility.

AUTOMOTIVE CURRICULUM

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
	FIRST QUARTER				
AuDI 0101	Fuels and Lubricants	T	2	3	3
AuDi 0102	Basic Electricity	T	2	5	4
AuDI 0121	Principles of Internal Combustion Engines	T	3	9	6
Math 0101	Basic Algebra	B	5	0	4
			12	17	17
	SECOND QUARTER				
AuDI 0111	Electrical and Fuel Systems I	T	3	6	5
Engl 0111	Contemporary Writing Skills I	G	5	0	4
Math 0130	College Algebra I	B	5	0	4
BMNT0101	Introduction to Business	G	5	0	4
Weld 0201	Combined Welding I	T	1	6	3
			19	12	20
	THIRD QUARTER				
AuDI 0112	Electrical and Fuel Systems II	T	3	6	5
Engl 0112	Contemporary Writing Skills II	G	5	0	4
Engl 0115	Composition and Mass Comm.	G	5	0	4
Econ 0101	Principles of Economics I	B	5	0	4
			18	6	17
	FOURTH QUARTER				
Auto 0201	Power Drive Train	T	3	4	5
Auto 0223	Air Conditioning & Brake Syst.	T	2	4	3
EnDr 0101	Engineering Drawing I	T	1	5	3
RMMT0223	Sales Promotion	G	4	2	4
Phys 0201	Physics (Mechanics)	B	3	3	4
			13	18	19
	FIFTH QUARTER				
Psyc 0101	Principles of Psychology	G	5	0	4
Auto 0211	Testing and Repair	T	4	9	6
Auto 0212	Chassis	T	3	6	6
Engl 0121	Technical Writing	G	3	0	3
			15	15	19
	SIXTH QUARTER				
Auto 0221	Service Area	T	0	6	2
Auto 0224	Automatic Transmissions	T	3	6	5
Auto 0225	Service Management Practices	T	4	0	4
Spch 0101	Speech I	G	3	0	3
EMng 0206	Hydraulics & Pneumatics	T	3	2	3
			13	14	17

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, 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.
	FIRST QUARTER				
Engl 0111	Contemp. Writing Skills I	G	5	0	4
Math 0130	College Algebra I	B	5	0	4
Econ 0101	Economics I	B	5	0	4
CEng 0101	Intro. to Surveying	T	3	0	3
EnDR 0101	Engineering Drawing I	T	1	5	3
			19	5	18
	SECOND QUARTER				
Engl 0112	Contemp. Writing Skills II	G	5	0	4
Math 0131	College Algebra II	B	5	0	4
Phys 0201	Physics I (Mechanics)	B	3	3	4
CEng 0111	Surveying I	T	2	5	3
EnDR 0102	Engineering Drawing II	T	1	5	3
			16	13	18
	THIRD QUARTER				
Engl 0115	Comp. & Mass. Comm.	G	5	0	4
Math 0132	Trig. & Anal. Geometry	B	5	0	4
Phys 0202	Physics II (Electricity)	B	3	3	4
CEng 0112	Surveying II	T	2	5	3
EnDr 0103	Engineering Drawing III	T	1	5	3
			16	13	18
	FOURTH QUARTER				
Engl 0121	Technical Writing	G	3	0	3
Phys 0203	Physics III (Heat, Light & Sound)	G	3	3	4
CEng 0211	Highway Construction I	T	5	0	4
CEng 0113	Route Surveying I	T	2	6	3
CEng 0203	Statics	T	4	0	3
			17	9	17
	FIFTH QUARTER				
CEng 0202	Civil Engineering Law	T	2	0	2
CEng 0207	Strength of Materials I	T	3	2	3
CEng 0204	Construction Supervision	T	3	0	3
ENGR0101	First Aid & Safety	T	1	1	1
Psyc 0101	Prin. of Psychology	G	5	0	4
CEng 0205	Hydraulics for Civil Engr.	T	2	1	2
CEng 0114	Route Surveying II	T	2	5	3
			18	9	18
	SIXTH QUARTER				
CEng 0206	Engr. Prob. & Field Inspec.	T	0	3	1
CEng 0212	Highway Construction II	T	5	0	4
CEng 0201	Concrete Design	T	4	2	4
CEng 0208	Soil Materials & Testing	T	2	3	3
CEng 0115	Surveying for Civil Engineers	T	4	0	3
Soci 0101	Prin. of Sociology	G	5	0	4
			19	8	19

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

SERVICE TECHNICIANS — 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. They utilize modern equipment to service and repair a variety of malfunctions on diesel engines and heavy-duty drive components.

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

LABORATORY 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.

LUBRICATION 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.

DIESEL CURRICULUM

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
	FIRST QUARTER				
AuDi 0101	Fuels and Lubricants	T	2	3	3
AuDi 0102	Basic Electricity	T	2	5	4
AuDi 0121	Prin. of Internal Combustion Engines	T	3	9	6
Math 0101	Basic Algebra	B	5	0	4
			12	17	17
	SECOND QUARTER				
AuDi 0111	Electrical and Fuel Systems I	T	3	6	5
Engl 0111	Contemp. Writing Skills I	G	5	0	4
Math 0130	College Algebra I	B	5	0	4
BMNT0101	Introduction to Business	G	5	0	4
			18	6	17
	THIRD QUARTER				
AuDi 0112	Electrical and Fuel Systems II	T	3	6	5
Engl 0112	Contemp. Writing Skills II	G	5	0	4
EnDr 0101	Engineering Drawing I	T	1	5	3
Econ 0101	Principles of Economics I	B	5	0	4
			14	11	16
	FOURTH QUARTER				
DSEL 0202	Diesel Engines I	T	4	6	6
DSEL 0211	Diesel Fuel Injection	T	4	6	6
Phys 0201	Physics (Mechanics)	B	3	3	4
			11	15	16
	FIFTH QUARTER				
DSEL 0203	Diesel Engines II	T	4	6	6
DSEL 0222	Heavy Duty Automatic Trans.	T	2	4	3
Weld 0201	Combined Welding I	T	1	6	3
Engl 0121	Technical Writing	G	3	0	3
Psyc 0101	Principles of Psychology	G	5	0	4
			15	16	19
	SIXTH QUARTER				
DSEL 0201	Heavy Duty Drives	T	4	6	6
DSEL 0221	Service & Maintenance Manag.	T	4	0	4
DSEL 0223	Heavy Duty Chassis & Brake Systems	T	2	5	4
EMng 0206	Hydraulics & Pneumatics	T	3	2	3
Spch 0101	Speech I	G	3	0	3
			16	13	20

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 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.

ELECTRIC 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.
	FIRST QUARTER				
Engl 0111	Contemp. Writing Skills I	G	5	0	4
Math 0130	College Algebra I	B	5	0	4
Econ 0101	Economics I	B	5	0	4
EMng 0111	Electrical Fundamentals I	T	3	3	4
EnDr 0101	Engineering Drawing I	T	1	5	3
			19	8	19
	SECOND QUARTER				
Engl 0112	Contemp. Writing Skills II	G	5	0	4
Math 0131	College Algebra II	B	5	0	4
Phys 0201	Physics I (Mechanics)	B	3	3	4
EMng 0101	Electro-Mechanical Devices	T	2	3	3
EMng 0112	Elect. Fundamentals II	T	3	3	4
			18	9	18
	THIRD QUARTER				
Engl 0115	Comp. & Mass Comm.	G	5	0	4
Math 0132	Trig. & Anal. Geometry	B	5	0	4
Phys 0202	Physics (Electricity)	B	3	3	4
EMng 0121	Electronics I	T	2	5	4
EMng 0103	Electro-Mechanical Drawing	T	1	3	2
			16	11	18
	FOURTH QUARTER				
Engl 0121	Technical Writing I	G	3	0	3
Phys 0203	Phys. (Heat, Light & Sound)	G	3	3	4
EMng 0201	Intro. Electro-Mech. Syst.	T	2	3	3
EMng 0202	Mechanical Analysis	T	3	3	4
EMng 0203	Mechanics and Dynamics	T	1	3	2
EMng 0122	Electronics II	T	2	4	3
			14	16	19
	FIFTH QUARTER				
Soci 0101	Prin. of Sociology	G	5	0	4
EMng 0211	Electronics Logic Circuits I	T	2	5	3
EMng 0204	Control Devices	T	2	5	3
EMng 0205	Automatic Control Systems	T	3	3	4
EMng 0206	Hydraulics & Pneumatics	T	3	2	3
Engr 0101	First Aid and Safety	T	1	1	1
			16	14	18
	SIXTH QUARTER				
Psyc 0101	Prin. of Psychology	G	5	0	4
EMng 0212	Electronic Logic Circuits II	T	2	5	3
EMng 0207	Electro-Mechanical Design	T	1	6	3
EMng 0208	Electro-Mechanical Systems	T	2	4	3
Engr 0209	Industrial Supervision	T	3	0	3
			13	15	16

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

NOTES

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 ability, and drive, the technician can advance to repair, troubleshooting, and assisting in design. 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 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 mechanical functions requiring the use of tools (screwdriver, wrench, pliers, electrical drill, soldering iron). Ability to read both instrumentation and electronic schematic diagams 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 calibrations 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 — Devises, sets up, and operates electronic instrumentation and related electromechanical or electrohydraulic apparatus involved in operational and environmental testing of machines and electrical equipment, and translates test data for subsequent use by engineering personnel in making engineering design and evaluation decision.

PLANT MAINTENANCE ENGINEERING CURRICULUM

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
	FIRST QUARTER				
Engl 0111	Contemp. Writing Skills I	G	5	0	4
Math 0101	Basic Algebra	B	5	0	4
PMnt 0101	DC Circuits and Machines	T	2	5	4
EnDr 0101	Engineering Drawing I	T	1	5	3
	Technical Elective	T			1-3
			13	10	16-18
	SECOND QUARTER				
Engl 0112	Contemp. Writing Skills II	G	5	0	4
Math 0130	College Algebra I	B	5	0	4
PMnt 0102	AC Circuits and Machines	T	2	5	4
Phys 0201	Physics (Mechanics)	B	3	3	4
EnDr 0100	Blueprint Reading	T	2	0	2
			17	8	18
	THIRD QUARTER				
Engl 0115	Comp. and Mass Comm.	G	5	0	4
Math 0131	College Algebra II	B	5	0	4
PMnt 0111	Industrial Electronics	T	2	5	4
Chem 0202	Process Instrumentation	T	3	3	4
PMnt 0103	Industrial Electricity	T	2	5	3
			17	13	19
	FOURTH QUARTER				
Engl 0121	Technical Writing I	G	3	0	3
PMnt 0201	Instrumentation Electronics	T	3	6	5
Psyc 0101	Principles of Psychology	G	5	0	4
PMnt 0211	Fluid Mechanics I	T	3	3	4
Engr 0101	First Aid and Safety	T	1	1	1
EMng 0206	Hydraulics and Pnuematics	T	3	2	3
			18	12	20
	FIFTH QUARTER				
PMnt 0224	Industrial Control I	T	3	3	4
PMnt 0212	Fluid Mechanics II	T	3	3	4
Econ 0101	Principles of Economics I	G	5	0	4
PMnt 0221	Instrument Fundamentals I	T	3	4	4
			14	10	16
	SIXTH QUARTER				
Engr 0209	Industrial Supervision	T	3	0	3
PMnt 0222	Instrument Fundamentals II	T	3	4	4
PMnt 0223	Measurement Principles	T	3	4	4
PMnt 0225	Industrial Control II	T	3	3	4
			12	11	15

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 precent; 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 one of 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' contributors 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.

TECHNICIAN 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	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
	FIRST QUARTER				
Engl 0111	Contemp. Writing Skills I	G	5	0	4
Chem 0141	Chemistry I	B	3	3	4
Math 0130	College Algebra I	B	5	0	4
PEng 0102	Machine Tools	T	1	3	2
PEng 0101	Intro. to Plastics/ Chemical Tech.	T	3	2	3
			17	8	17
	SECOND QUARTER				
Engl 0112	Contemp. Writing Skills II	G	5	0	4
Math 0131	College Algebra II	B	5	0	4
EnDr 0101	Engineering Drawing I	T	1	6	3
Chem 0142	Chemistry II	B	3	3	4
Engr 0209	Industrial Supervision	T	3	0	3
			17	9	18'
	THIRD QUARTER				
Engl 0115	Comp. and Mass Comm.	G	5	0	4
Chem 0143	Chemistry III: Quantitative Analysis	B	3	3	4
Math 0132	Trigonometry & Analytic Geometry	B	5	0	4
	Technical Elective	T	6-8	3	6-8
			19-21	6	18-20
	FOURTH QUARTER				
Engl 0121	Technical Writing	G	3	0	3
PEng 0206	Intro. to Chemical Engineering	T	3	2	3
Phys 0201	Physics (Mechanics)	B	3	3	4
	Technical Elective	T	5-6	5-6	7
			14-15	10-11	17
	FIFTH QUARTER				
Econ 0101	Prin. of Economics I	B	5	0	4
Engr 0101	First Aid and Safety	T	1	1	1
Phys 0202	Physics (Electricity)	B	3	3	4
	Technical Electives	T	6-7	5-8	7-9
			15-16	9-12	16-18
	SIXTH QUARTER				
Phys 0203	Physics (Heat, Light, Sound)	B	3	3	4
PEng 0202	Production Control & Planning	T	3	3	4
PEng 0207	Fundamentals of Process Equip. and Maintenance	T	2	0	2
	Technical Elective	T	6	6	8
			14	12	18

Students may elect a different sequence of math with advisor approval. Students who choose plastics courses as electives may choose to take Chemistry 0122 in place of Chemistry 0143 with advisor approval.

Chemical Electives

Chem 0202 — Process Instrumentation (4)
Chem 0205 — Organic Chemistry (4)
Chem 0206 — Organic Chemistry (4)
Chem 0207 — Organic Chemistry (4)
Chem 0211 — Unit Operations I (4)
Chem 0212 — Unit Operations II (4)
Chem 0224 — Instrumental Analysis I (5)
Chem 0225 — Instrumental Analysis II (5)

Plastics Electives

PEng 0103 — Extrusion Molding (3)
PEng 0104 — Thermo-Forming (3)
PEng 0105 — Injection Molding (3)
PEng 0201 — Plastics Finishing (4)
PEng 0203 — Testing of Plastic Materials (3)
PEng 0205 — Plant Layout & Materials Handling (3)
PEng 0209 — Fabrication and Manufacturing of Plastic Products (4)
PEng 0210 — Properties of Materials (4)

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 are also 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.

WELDING TECHNOLOGY CURRICULUM

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
	FIRST QUARTER				
Engl 0111	Contemp. Writing Skills I	G	5	0	4
Econ 0101	Principles of Economics I	G	5	0	4
Math 0105	Business Math	B	5	0	4
Weld 0101	Welding Symbols and Prints	T	4	0	4
Weld 0111	Basic Oxy-Acetylene Welding	T	1	8	4
			20	8	20
	SECOND QUARTER				
Engl 0111	Contemp. Writing Skills II	G	5	0	4
Math 0101	Basic Algebra	B	5	0	4
BMNT0101	Introduction to Business	G	5	0	4
Weld 0201	Combined Welding I	T	1	8	4
Weld 0113	Basic Arc Welding	T	1	10	4
			17	18	20
	THIRD QUARTER				
Engl 0115	Comp. and Mass Comm.	G	5	0	4
Math 0130	College Algebra I	B	5	0	4
Weld 0102	Template Layout and Construction	T	4	0	4
Weld 0112	Basic Inert Gas Welding	T	1	5	3
Weld 0114	Advanced Arc Welding	T	1	8	4
			16	13	19
	FOURTH QUARTER				
Spch 0101	Speech I	G	3	0	3
Engr 0209	Industrial Supervision	T	3	0	3
Weld 0202	Combined Welding II	T	1	8	4
Weld 0211	Advanced Structural Welding	T	1	8	4
Weld 0122	Welding Metallurgy	T	4	0	3
			12	16	17
	FIFTH QUARTER				
Engl 0121	Technical Writing	G	3	0	3
Psyc 0101	Psychology	G	5	0	4
Weld 0203	Combined Welding III	T	1	8	4
Weld 0212	Pipe Welding	T	1	15	6
			10	23	17
	SIXTH QUARTER				
Soci 0101	Sociology	G	5	0	4
Weld 0213	Advanced Pipe Welding	T	1	8	4
Weld 0216	Welding Certification and Testing	T	1	15	6
Weld 0214	Advanced Inert Gas Welding	T	1	6	3
			8	29	17

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

PUBLIC SERVICE TECHNOLOGY

(ASSOCIATE OF APPLIED SCIENCE DEGREE)

Social Services Technology

NATURAL RESOURCES TECHNOLOGY

(ASSOCIATE OF APPLIED SCIENCE DEGREE)

Recreation and Parks Management

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.

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.
	FIRST QUARTER				
Engl 0111	Contemp. Writing Skills I	G	5	0	4
Soci 0101	Prin. of Sociology	G	5	0	4
Psyc 0101	Prin. of Psychology	G	5	0	4
Pscy 0173	Human Growth & Devel.	B	3	2	4
SSTc 0102	Intro. to Social Services	T	3	2	3
			21	4	19
	SECOND QUARTER				
Engl 0112	Contemp. Writing Skills II	G	5	0	4
SSTc 0103	Contemp. Social Problems	B	4	0	3
SSTc 0107	Sociology of Education	B	5	0	4
Psyc 0131	Human Adjustment	B	3	0	3
SSTc 0104	Personal Growth & Devel.	T	2	0	2
SSTc 0111	Social Serv. Internship I	T	0	6	2
			19	6	18
	THIRD QUARTER				
Engl 0115	Comp. & Mass Comm.	G	5	0	4
SSTc 0105	Marriage and the Family	T	3	1	3
Spch 0101	Speech I	G	3	0	3
SSTc 0106	Rehabilitation	T	2	0	2
Psyc 0270	Abnormal Psychology	G	5	0	4
SSTc 0112	Social Serv. Internship II	T	0	6	2
			18	7	18
	FOURTH QUARTER				
SSTc 0201	Public & Child Welfare	T	3	2	3
CorT 0102	Criminology	T	4	0	3
SSTc 0212	Penology & Corrections	T	3	3	4
SSTc 0204	Social Group Work	T	2	0	2
Econ 0101	Prin. of Economics I	B	5	0	4
SSTc 0113	Social Serv. Internship III	T	0	6	2
			17	11	18
	FIFTH QUARTER				
Econ 0206	Consumer Economics	B	5	0	4
SSTc 0205	Historic Background to Urban Society	B	3	2	3
SSTc 0210	Medical Sociology	T	3	0	3
SSTc 0207	U.S. Minority Groups	T	3	0	3
SSTc 0114	Social Serv. Internship IV	T	0	6	2
CorT 0103	Juvenile Delinquency	T	4	0	3
			18	8	18
	SIXTH QUARTER				
SSTc 0208	Community & Community Resources	T	3	2	3
SSTc 0209	Interviewing & Counseling	T	1	3	2
SSTc 0203	Gerontology	T	4	0	3
SSTc 0211	Social Prob. & Police Relations	T	2	3	3
	Electives	G	3	0	3
SSTc 0115	Social Serv. Internship V	T	0	6	2
			13	14	16

NATURAL RESOURCES TECHOLOGY
(ASSOCIATE OF APPLIED SCIENCE DEGREE)

RECREATION AND PARKS MANAGEMENT

The Recreation and Parks 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 as maintenance, and serve as supervisor for personnel under his control. The Recreation and Parks technician will be able to develop recreational programs and give instructions in all areas of recreation.

An integral part of the Recreation and Parks Management 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 Recreation and Parks.

Job Opportunities

Positions available in Recreation and Parks Management Technology:

ASSISTANT PARK MANAGER — Supervises and coordinates activites 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.

RECREATION & PARKS MANAGEMENT CURRICULUM

Course No.	Course	Code	Class Hrs.	Lab Hrs.	Cr. Hrs.
	FIRST QUARTER				
RAPM0101	Introduction to Recreation	T	2	3	3
Biol 0105	Field Biology	B	2	4	3
Engl 0111	Contemp. Writing Skills I	G	5	0	4
Math 0105	Business Math	B	5	0	4
Psyc 0101	Principles of Psychology	G	5	0	4
			19	7	18
	SECOND QUARTER				
RAPM0102	Soil Management	T	2	3	3
Biol 0215	General Ecology	B	2	3	3
HPER 0227	First Aid	T	4	0	4
HPER 0110	Physical Education Activity	T	0	2	1
Engl 0112	Contemp. Writing Skills II	G	5	0	4
Math 0101	Basic Algebra	B	5	0	4
			18	8	19
	THIRD QUARTER				
RAPM0103	Hydrology and Water Quality	T	2	4	3
RAPM0104	Taxonomy of Vertebrates	T	3	3	4
HPER 0110	Physical Education Activity	T	0	2	1
Engl 0115	Comp. and Mass Comm.	G	5	0	4
Math 0130	College Algebra	B	5	0	4
CEng 0111	Surveying I	T	2	5	3
			17	14	19
	SUMMER QUARTER				
RAPM0121	Parks and Recreation Internship	T	0	40	6
	FOURTH QUARTER				
RAPM0201	Outdoor Recreation	T	2	6	4
RAPM0202	Forest Management and Recreation	T	3	6	4
RAPM0203	Maintenance of Recreation Areas	T	3	6	4
Soci 0101	Principles of Sociology	G	5	0	4
HPER 0110	Physical Education Activity	T	0	2	1
			13	17	17
	FIFTH QUARTER				
RAPM0204	Fiscal Operations	T	2	4	3
RAPM0205	Recreation Park Layout and Design	T	1	6	3
RAPM0206	Seminar	T	2	0	2
RAPM0207	Orientation to Employment	T	1	1	1
HPER 0281	Administration of Intramural Athletics	T	4	0	4
Spch 0101	Speech	G	3	0	3
			13	11	16
	SIXTH QUARTER				
RAPM0208	Water Recreation	T	2	4	3
RAPM0209	Park Protection	T	1	4	2
RAPM0210	Wildlife Management	T	2	4	3
HPER 0110	Physical Education Activity	T	0	2	1
HPER 0110	Physical Education Activity	T	0	2	1
HPER 0250	Recreation Leadership	T	4	0	4
			9	16	14

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.

SIX DEGREES

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

1 — Elementary Education
2 — General Business
3 — Nursing
4 — Criminal Justice
5 — General Studies
6 — Computer Systems in Business

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 Community 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 Vice-President 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 V.P. 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 V.P. 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 V.P. 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 V.P. 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 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 Community College adheres to state articulation guidelines recently adopted by the Ohio Board of Regents.

DEVELOPMENTAL COURSES

The developmental courses have been designed to assist students with inadequate preparation for college and to stimulate the progress of other students. Students with little preparation or a history of academic difficulty may want to consider these courses before taking other college courses. All developmental courses carry college credit, but they do not count toward fulfilling degree requirements for graduation.

Math 100A — 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.

Chem 100A — 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 are intended to increase student's familiarity with terms and chemical process.

Biol 100A — 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 are intended to increase student's familiarity with terms and chemical process.

Phys 100A — 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 0201. 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.

Engl 100A — Fundamental Writing (4)

This is a transitional course for the student who feels he has a basic weakness in reading or writing skills or one who has been away from classroom work for a number of years and recognizes the need for a better foundation for more advanced classroom work. Areas of concentration are (1) reading comprehension, (2) vocabulary development, (3) sentence and paragraph structure.

Engl 0090 — Vocabulary Development (2)

Emphasis is placed on development of skills necessary for building vocabulary.

Engl 0004 — Reading Development (2)

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.)

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

STUDENT SERVICES COURSES

The following rationing courses have been developed as special interest courses for students attending Shawnee State Community College. While Credit may be awarded at 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 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 skill 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 0008 — Memory Development (1)

Associative learning skills are explored and developed.

SSCr 0010 — TA/Self Concept (1)

Transactional analysis and value clarification are used to assist student in gaining self knowledge.

SSCr 0012 — Parenting/Parents (1)

Family life, structure, development and support are investigated with regard to family relationships.

SSCr 0013 — College Orientation (1)

This course has been developed to assist students in gaining and understanding of opportunities, majors, and procedures at Shawnee State Community College.

COURSE DESCRIPTIONS

ACCOUNTING

Acct 0100 — Basic Accounting (4)
An introduction to fundamental accounting concepts and procedures as required by small businesses. For individuals desiring one course in accounting only. NOT FOR ACCOUNTING MAJORS.

***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)
Prereq. Acct 0102.
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 0110 — Payroll Records/Accounting (3)
Prereq. Acct 0101 or 0100.
A basic course in the maintenance of personnel and payroll records as required by the Fair Labor Standards Act and the various federal and state laws covering the withholding and payment of payroll related taxes.

Acct 0205 — Principles of Finance (3)
Prereq. Acct 0102.
Forms of business organization; corporate securities, financing through securities, sources and management of working capital, administration of income, expansion and combination, reorganization, 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 0203 — Accounting Projects I (3)
Prereq. Departmental Permission (See Accounting Advisor).
A special course designed to permit the accounting student to work on special projects under the supervision of an instructor with expertise in the area of the student's project. The special projects course will enable the accounting student to apply the accounting theory as covered in other courses.

Acct 0231 — Governmental Accounting (4)
Prereq. Acct 0211.
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 0240 — Accounting Projects II (3)
Prereq. Departmental Permission (See Accounting Advisor).
A special course designed to permit the accounting student to work on special projects under the supervision of an instructor with expertise in the area of the student's project. The special projects course will enable the accounting student to apply the accounting student to apply the accounting theory as covered in other courses.

Acct 0241 — Auditing (3)
Prereq. Acct 0212 and 0222.
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 0291 — Advanced Accounting I (4)
Prereq. Acct 0213.
The course is a continuation of financial accounting theory as applied to special corporation problems including parent-subsidiary structures requiring consolidated reporting.

Acct 0292 — Advanced Accounting II (4)
Prereq. Acct 0291
A continuation of financial accounting theory as applied to special situations such as partnerships, estates and trusts, and special sales contracts.

Acct 0310 — Field Experience (3)
Prereq. AICPA Level II Achievement Test with equivalent of college senior or Accreditation Council of Accountancy Examination (see accounting advisor).
Provides qualified students with professional business training and experience in an actual job environment.

Acct 0311 — Field Experience II (3)
Prereq. Acct 0310 and AICPA Level II Achievement Test with equivalent of college senior or Accreditation Council of Accountancy Examination (see accounting advisor).
Provides qualified students with professional business training and experience in an actual job environment.

***Denotes classes with Lab fees.**

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 culture sequences.

Anth 0250 — Principles of Cultural Anthropology (4)
Preq. 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 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 — Photography I (4)
Introduction to Art and techniques of Photography.

Arts 0211 — Photography II (4)
Prereq. Arts 0210.
Continuation of Arts 0210 (offered on demand only).

Arts 0212 — Photography III (4)
Prereq. Arts 0211.
Continuation of Arts 0211 (offered on demand only).

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 through the previous two courses.

****Arts 0224 — Watercolor I (4)**
The focus of this course wil be on the use of watercolor as an expressive media.

****Arts 0225 — Watercolor II (4)**
Prereq.. Arts 0224
A continuation and expansion of ideas and conceptualizations gained through Arts 0224.

***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 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 basic 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 emploring 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. Offered on demand only.

****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. Offered on demand only.

****Art 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 centry.

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.

***Denotes classes with Lab fees.**
****Offered on demand only.**

****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 credit).

****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 TECHNOLOGY

***AuDI 0101 Fuels and Lubricants (3)**
A Lecture-Laboratory course involving 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 Lecture-Laboratory course designed to familiarize the student with the fundamentals of electrical theory, circuits, motors, generators, and alternators. The laboratory will provide an opportunity to construct several automotive electrical circuits and use electrical measuring instruments. This course is an introductory experience designed to provide a foundation for advanced work. Basic hand tools are required.

***AuDI 0111 — Electrical and Fuel Systems I (5)**
Prereq. AuDi 0102.
A Lecture-Laboratory course designed to provide the student with an opportunity to apply electrical and electronic fundamentals to the operation of automotive-diesel charging systems, starting systems, lighting and accessory circuits. Carburetion fundamentals are explored in depth and emission control systems are introduced. Basic hand tools are required.

***AuDI 0112 — Electrical and Fuel Systems II (5)**
Prereq. AuDi 0111.
A Lecture-Laboratory course emphasizing the theory and testing of breaker point and electronic ignition systems. Electronic fuel injection and turbocharging are introduced. Basic hand tools are required.

***AuDI 0121 — Principles of Internal Combustion Engines (6)**
A Lecture-Laboratory course emphasizing the design, construction and operation of modern internal combustion engines. Four stroke cycle, two stroke cycle, diesel, rotary and turbine engines will be included. Basic hand tools are required.

***AUTO 0201 — Power Drive Train (5)**
A Lecture-Laboratory Course covering the theory, disassembly, inspection, reassembly and adjustment of differentials, three and four speed manual transmissions and four speed manual transaxles. Related drive train components are also discussed. Basic hand tools are required.

***AUTO 0211 — Testing and Repair (6)**
Prereq. AuDi 0101, AuDi 0102, AuDi 0111, AuDi 0112, AuDi 0121. A Lecture-Laboratory experience designed for the advanced student. Correct diagnosis of difficult electrical and fuel system malfunctions are practiced utilizing all laboratory resources. Basic hand tools are required.

***AUTO 0212 — Chassis (6)**
A Lecture-Laboratory course including contemporary front and rear suspension systems. Steering system geometry is discussed and front end alignments are performed. Basic hand tools are required.

***AUTO 0221 — Service Area (2)**
Prereq. AuDi 0101, AuDi 0102, AuDi 0111, AudDi 0112, AuDi 0121, AUTO 0201, AUTO 0212, AUTO 0223.
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 in previous courses. Special emphasis is placed on the vehicle service needs which are most frequently requested in modern commercial service centers. Basic hand tools are required.

***AUTO 0223 — Air Conditioning and Brake Systems (3)**
A Lecture-Laboratory course including heating and air conditioning theory as applied to modern passenger car systems. Diagnostic procedures are emphasized and common service operations are performed. The course also includes a study of the design, theory of operation, and service procedure on passenger-car disc and drum brake systems. Basic hand tools are required.

***AUTO 0224 — Automatic Transmissions (5)**
A Lecture-Laboratory course emphasizing the design, construction and operation of passenger-car automatic transmissions and transaxle assemblies. Students disassemble, inspect, and reassemble selected General Motors, Chrysler, and Ford units demonstrating correct troubleshooting and service procedures. Basic hand tools are required.

AUTO 0225 — Service Management Practices (4)
A Lecture-Discussion course covering the principles involved in management of automotive service facilities. Content includes establishing objectives, organizational problems. personnel management, merchandising, pricing, warranty claims, and customer relations.

BIOLOGICAL SCIENCES

Biol 100A — 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 are intended to increase the student's familiarity with terms and chemical process.

***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. 2 lec. 4 lab.

***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 (6)**
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. 4 labs.

***Biol 0200 — Human Anatomy and Physiology (5)**
A general survey of the structure and function of the human body. Not applicable for students requiring Biol 0290 and 0291. 4 lec. 2 labs.

***Denotes classes with Lab fees.**
****Offered on demand only.**

****Biol 0210 — Trees and Shrubs (5)**

Prereq. Biol 112. Fall Quarter. (Offered on demand only). 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. Spring Quarter. (Offered on demand only). 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 environmnet, 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. (Offered on demand only.)
Principles and concepts of genetics as revealed by classical and modern investigation. 5 lec.

***Biol 0235 — 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. 4 lec. 4 labs.

***Biol 0290 — Principles of Anatomy and Physiology I 5 hrs. cr. (4 lec 3 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. 4 lec. 3 lab.

***Biol 0291 — 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. 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.

***Denotes classes with lab fees.**
****Offered on demand only.**

BUSINESS MANAGEMENT

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 and yields, and outlets for individual and institutional funds.

BAFT 0105 — Installment Credit (4)

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

BAFT 0106 — Principles of Bank Operations (4)

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 0202 — Home Mortgage Lending (4)

A course covering the basic principles of home mortgage lending. A study of the procedures used 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 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 analysis necessary before making wise investment decisions.

BAFT 0205 — 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.

BMNT 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.

BMNT 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.

BMNT 0201 — 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 intrical concepts in performing the management functions.

BMNT 0202 — Personnel Management (3)

The philosophy, principles, and methods of personnel managment; organizational structure, areas of responsibility and authority, policy making, procurement and placement, training, evaluation, wage and salary administration and benefit programs.

BMNT 0240 — Industrial Relations (4)
The methods of employer-employee relations, emphasizing the position of the employer; personnel policies and practices, compliances with law and regulations with labor unions.

BMNT 0241 — Labor Relations (4)
This course is concerned with collective bargaining, contract or labor agreements, workmen's compensation laws, apprentice training, and jurisdictional disputes.

BMNT 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 report as means of communication.

REST 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 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.

REST 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.

REST 0212 — Real Estate Law (4)
Real Estate Law includes all of the areas of law commonly concerned with the typical real estate practitioner and investory-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.

REST 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.

REST 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.

REST 0215 — Special Topics 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, Real Estate Law, Real Estate Finance, Real Estate Appraisal, Real Estate Brokerage.

***Denotes classes with Lab fees.**
****Offered on demand only.**

RMMN 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 from 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 — Marketing Case Studies (4)
To give the student an opportunity to report and discuss marketing problems in a group situation. Problems discussed are concerned with areas of marketing management, production planning and development, marketing research, industrial buying behavior, market segmentation, price objectives, advertising, and international marketing environment.

***RMMT 0233 — Sales Promotion (4)**
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 (3)
An independent research study of a particular area of the retailing industry which interests the student.
Prereq. Sophomore standing, permission of full-time retail instructor and Introduction to Retailing.

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 100A — 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 are intended to increase student's familiarity with terms and chemical process.

***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, keytones, organic acids, esters, amines, and aromatic compounds. 3 lec. 3 lab.

***Chem 0123 — Physiological 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 lec. 3 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: Quantitive Analysis (4)**

Prereq. Chem 0142
An introduction to ionic equilibrium and principles of quantitative analysis. Emphasis placed upon classical gravimetric and volumetric analysis. 3 lec. 3 lab.

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

Introduction to measurement and control systems for temperature pressure, and fluid flow. Dynamic response characeristics 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 lab.

***Chem 0206 — Organic Chemistry (4)**

Prereq. Chem 0205.
Continuation of 205. See 205 course description. 3 lec. 3 lab.

***Chem 0207 — Organic Chemistry (4)**

Prereq. Chem 0206
Continuation of 205-206. See 205 description. 3 lec. 3 lab.

***Chem 0211 — Unit Operations I (4)**

Prereq. Math 131 and PEng 0206.
Fundamentals of distillation, filtration, drying extraction, mixing, adsorption, 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 — Instrumental Analysis I (5)**

Prereq. Chem 0143.
An introduction to methods of chemical analysis by spectophotometry. The topics include U.V./visible, infrared, atomic absorption, flame emission, and X-ray methods. 3 lec. 3 lab.

***Chem 0225 — Instrumental Analysis II (5)**

Prereq. Chem 0224.
An introduction to methods of chemical analysis by chromatography and electroanalytical chemistry. Topics include solvent extraction; various types of chromatography including gas, liquid, ion exchange, thin layer, and paper; potentiometric, coulometric, and amperometric titrations; electrodeposition; and polarography. 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. Introductoy 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 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 applicaton of route surveys.

CEng 0115 — Surveying for Civil Engineers (3)

Prereq. CEng 0114.
Advanced surveying methods. Boundary surveys, United States Public Land Surveys, fundamental survey control and the state coordinate systems, planning and estimating from topographic maps, celestial observations, mine survey, city survey, new precision surveying instruments and methods geodimeter and one second theodolite.

***CEng 0201 — Concrete Design I (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.

***Denotes classes with Lab fees.**

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 in 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.
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 visitation, office computation; 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 intertia 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 0101 — Survey of the Arts (4)

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 (4)

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 (4)

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.

***Denotes classes with Lab fees.**

CORRECTIONS

CorT 0203 — Criminology (3)

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.

DATA PROCESSING

***EDPT 0101 — Basic & Assembler Programmer (3)**

The assembly language instructions and coding techniques are introduced with programs written using auxiliary storage, interrupt processing, and table processing. All programs are tested and thoroughly documented.

***EDPT 0102 — BASIC Language I (3)**

This course provides an introduction to data processing and the programming language BASIC. No prior experience either programming or using computers is required. Some knowledge of basic algebra is necessary to understand the use of mathematical expressions in the BASIC language. Practical examples and exercises will teach the student the capabilities of BASIC and how to write functional BASIC programs.

***EDPT 0103 — BASIC Language II (3)**

Prereq. EDPT 0102.
This course teaches advanced BASIC programming techniques under the RSTS/E system. Students will learn how to use system function calls and how to optimize file creation and access. Students will be trained to write programs using terminal Input/Output features and to perform interjob communication.

***EDPT 0104 — COBOL Programming I (4)**

The student will study in depth the COBOL language. Use of files on disks, print routines, use of terminals, and documentation will be stressed. Many problems will be assigned to move theory into practice.

***EDPT 0105 — COBOL Programming II (4)**

Prereq. EDPT 0104.
A deeper study of COBOL. More complex problems will be assigned using tables and various utility programs available from the manufacturer. New instructions and different ways of using them will be examined.

***EDPT 0106 — RPG II Language (4)**

This is another computer language. It is a fast way to program. Normally used to produce reports for management. All rules of programming apply, but various forms are required to produce output and care must be used to fill in exact details.

***EDPT 0201 — Systems Analysis & Design (4)**

Prereq. EDTP 0101 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 0202 — Computer Operations Management (3)

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

***EDPT 0203 — Business Computer Projects I (4)**

Prereq. two programming languages or department permission.
Students will work in groups to do a complete systems proposal, design testing, debugging, and implementation.

***EDPT 0204 — Business Computer Projects II (4)**
Prereq. EDPT 0203.
Programs will be assigned on an individual basis. Certain commands will be required within the program. Students will be told to look in manuals how to use these commands and what their limitations are.

***EDPT 0205 — Business Data Systems & Communications (3)**
Prereq. one computer language or department permission.
A study of man-machine interactions through teleprocessing and telecommunication systems. Emphasis of current time-sharing 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 0130.
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 business problems.

***EDPT 0207 — PASCAL Language (4)**
This course provides an introduction to the programming language PASCAL. Some knowledge of basic algebra is helpful in understanding the rules that govern the formation and use of mathematical expressions in the PASCAL language. Use of Input/Output statements, loops, subprograms, arrays and files are covered.

***EDPT 0261 — Accounting With D.P. Applications (4)**
To have the students understand the need for accounting and how it relates to Data Processing. To show how a computer can be used to aid the accountant. To have the students understand that the computer is a tool to be used in accounting and to point out ways it can be used to aid accounting.

DENTAL HYGIENE

DtHy 0101A — Radiology I (1)
Didactic instruction in the history and development of the dental x-ray. Emphasis on the nature and properties of the x-ray) ma, Kvp, exposure time, target film distance, film speed, shortcone, longcone, SCP instrumentation, etc. Theory of the fundamentals of oral radiographic techniques. Regulations and safety precautions, as well as the uses of x-ray in dentistry.

DtHy 0101B — Radiology II (2)
Continuation of Radiology I. Emphasis on technique, film placement, tube angulation, exposure, "bisect the angle" and XCP techniques. Darkroom instruction — processing and duplication, adverse factors affecting darkroom procedures. Mounting of films, examining radiographs and recognizing normal landmarks, as well as abnormalities. Laboratory instruction will be in depth as to technique. Throughout the second year, specific minimum numbers and types of radiographs will be required clinically.

DtHy 0102 — General and Oral Histology and Embryology (3)
Study of the development of tissues and structures from a histological and embryological basis. Emphasis is on development of tissues of the teeth and the periodontal supporting structures.

***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 — Oral Anatomy I (3)
A study of tooth form, function and occlusion including the supporting tissues of the teeth and oral environment, emphasis on dental vocabulary, terminology, and the relationship of the permanent and deciouous dentition to Clinical Dental Hygiene.

***Denotes classes with Lab fees.**

DtHy 0112 — Oral Anatomy II (3)
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 supply and blood supply. Detailed study of the topographical and functional anatomy of the oral cavity and pharynx.

***DtHy 0121 — Clinical Dental Hygiene I (4)**
The introduction to the profession including history and development of Dental Hygiene; medicodental terminology; principles of preventive dentistry, the roles of plaque, nutrition, and fluoride in relationship to dental caries and gingival inflammation; principles and methods of patient education, plaque removal and control; the prevention of disease transmission; etiology of plaque, calculus, and stains; the importance of complete patient records and screening techniques; guidelines for professional appearance; patient records and screening techniques; guidelines for professional appearance; patient/operator positioning, basic instrumentation, design and construction of instruments, lab practice on typodonts for manual dexterity in the control and use of instruments, and the transferring of acquired skills to a living object.

***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 diagnostic data collection. Skill practices included are detection of hard and soft deposits, scaling and polishing techniques. Study of occlusion, periodontal evaluation and probing, techniques for fluoride application, oral hygiene assessment, patient education, and management techniques.

***DtHy 0123 — Clinical Dental Hygiene III (4)**
A continuation and application of previously learned techniques and procedures of dental hygiene care and services performed in the clinic atmosphere as they would be in practice. Advanced skills include desensitization and principles and technique for instrument sharpening, and sequencing treatment planning for individual patients.

***DtHy 0124 — Clinical Dental Hygiee IV (6)**
A continuation of Clinic III techniques and procedures. An in-depth study of medical emergencies in the dental office, their treatment and prevention.

***DtHy 0125 — Clinical Dental Hygiene V (5)**
A continuation of clinic procedure and practices with emphasis on nutritional counseling and practical patients. Advanced skills include the use of radiographs in evaluation and charting, use of ultrasonic scaling device, amalgam polishing, and fabrication of study models. Further study in root planning; curettage; periodontal packs; suture removal, as well as care for the special needs patient.

***DtHy 0126 — Clinical Dental Hygiene VI (5)**
The continuation of clinical procedures with emphasis on nutritional counseling, trial state board patient, and dental specialty office rotations. Ethics and legal factors involved with the profession are discussed. Career placement through resumes and interviews are also considered.

***DtHy 0127 — Clinical Dental Hygiene VII (5)**
Complete dental hygiene care involving the use of advanced technical skills. Seminars are included.

DtHy 0201 — General and Oral Pathology (3)
An introduction to pathology. Process 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 supporting structures of the teeth. Etiologies and classifications of periodontal disease are discussed. The treatment of periodontal disease is discussed in relation to the etiologies.

DtHy 0203 — Nutrition (3)

A study of general nutrition and its role in promoting health. Includes composition and functions of nutrients and their digestion and metabolism. The student is also exposed to select topics such as nutrition labeling, "health" foods, food preparation, breast feeding, and current concerns in world nutrition. Emphasis is placed on planning nutritious diets.

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 methods 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)

An introduction to the broad field of public health with emphasis on the development of dental public health programs. A simplified approach to the knowledge of those public health tools needed by the dental professional to assist in designing and operating a dental public health program. Participation in a dental public health project is included in this course.

DtHy 0250 — Expanded Functions I (4)

To introduce the student to the restoration of cavity preparations with amalgam and tooth-colored materials in a simulated clinical environment. The student will be evaluated on performance immediately following the completion of the clinical procedure.

DtHy 0251 — Expanded Functions II (2)

To give the student practice in the restoration of cavity preparation in a real clinical environment. The student will complete a sufficient number of restorations to qualify them for expanded functions in the dental office under the supervision of a dentist.

DIESEL

***DSEL 0201 — Heavy Duty Drives (6)**

A comprehensive study of typical heavy-duty power transmission units used in trucks, tractors, and crawlers. Units include clutches, transmissions, differentials, drive axles, track drives, propeller shafts, universal joints, power take-offs, and winches. Basic hand tools are required.

***DSEL 0202 — Diesel Engines I (6)**

A Lecture-Laboratory course emphasizing the design, construction, and operation of two and four stroke cycle diesel engines. A turbo-charged engine is completely disassembled, inspected, reassembled, and adjusted to satisfactory running condition. Basic hand tools required.

***DSEL 0203 — Diesel Engines II (6)**

Prereq. DSEL 0202.
A Lecture-Laboratory course with special emphasis on fuel injection systems. A supercharged diesel engine is disassembled, inspected, reassembled, and adjusted to satisfactory running condition. Basic hand tools are required.

***DSEL 0211 — Diesel Fuel Injection (6)**

This course is a lecture and laboratory combination including a study of diesel fuels, primary and secondary fuel distribution, and injection systems. Instruction is provided on common rail systems, unit injectors, and primary pump systems as used on trucks and heavy equipment applications. Basic hand tools are required.

***Denotes classes with Lab fees.**

DSEL 0221 — Service and Maintenance Management (4)

A Lecture-Discussion 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.

***DSEL 0222 — Heavy Duty Automatic Transmission (3)**

A Lecture-Laboratory course including the theory of torque convertors, power transmission, planetary systems and hydraulic controls. Students participate in the disassembly, inspection adjustment, and reassembly of modern heavy duty automatic transmissions. Basic hand tools are required.

***DSEL 0223 — Heavy Duty Chassis and Brake Systems (4)**

A Lecture-Laboratory course including the study of suspension systems, tires, wheels, rims, and axles. Several brake systems such as engine, air, power assist, cam and wedge, and disc are discussed. Basic hand tools are required.

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 0096 — Electro Concepts (4)

A survey course in the basic concepts of electricity and electronics. Basic DC circuits are studied as the concepts of Ohm's Law, resistance, capacitance, inductance, power, and energy are introduced. AC circuits involving reactance, impedance, phasors, and power factors are studied. DC and AC rotating machines are surveyed. A superficial study of elementary solid state electronics is offered. This course is not for Electro-Mechanical majors and is not applicable toward an Associate degree.

***EMng 0101 — Electro-Mechanical Devices (3)**

Prereq. EMng 0112 concurrently or advisor approval.
An introduction to devices where both electrical and mechnical 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 machines 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 0204 or concurrent with EMng 0204, Math 0132, or advisor approval.
Automatic Control Systems, along with Control Devices, describes complete electro-mechanical systems. Emphasis is given to closed loop analog systems. The micro-computer is programmed and interfaced with input and output transducers to build complete automatic control systems.

***Denotes classes with Lab fees.**

***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, 0203, 0211, 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 solid state, integrated electronic logic. Practical applications of Boolean algebra, logic gates, binary pulse circuits, number systems, and computer arithmetic.

***EMng 0212 — Electronic Logic Circuits II (3)**

Prereq. EMng 0211 or advisor approval.
Continuation of Logic Circuits I. Integrated circuit applications which includes combinational and sequential logic. Printed circuits, counters, registers, decoders, signal converters, and microprocessor based microcomputers.

EMERGENCY MEDICAL TECHNICIAN — PARAMEDIC

EMT-A 0101 — EMT Orientation (2)

Introduction to the roles and responsibilities of the EMT. This course includes relations to victims, other medical personnel, and other officials. Emphasis is also on medical terminology.

EMT-A 0102 — Emergency Victim Care (8)

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 cardiopulmonary, 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. This is the state of Ohio EMT-A course.

***EMT-A 0105 — Advanced EMT-A Course (4)**

This course is designed to take the basic skills and knowledge gained in the basic EMT-A course and build on them in the areas of patient assessment, respiratory distress, and shock. At the same time, the student will be introduced to advanced skills such as MAST, esophageal obturator airways and IV therapy.

***EMT-P 0101 — Paramedic Skills I (5)**

This course is designed to take the basic skills and knowledge gained in the basic EMT-A course and expand them in the areas of shock and fluid therapy, body systems and patient assessment, and respiratory emergencies. Advanced skills taught in this course include IV therapy, itubation both esophageal and endotracheal, and MAST. This course includes DOT Paramedic Program Modules I, II, III AND VII.

Module I Role of EMT
II Human Systems & Pt. Assessment
III Shock & Fluid Therapy
VII Respiratory System.

***EMT-P 0102 — Paramedic Skills II (3)**

This course emphasizes gaining access to rescuing and transporting a patient. The recognition and control of certain hazards, such as explosive material, downed electrical wires, toxic gases, and radiation, are included. This course also deals with the use of radio communications equipment, including the transmission of voice communications and EKG transmission. This class also deals with FCC regulations with respect to the use of radio equipment, protocols, and procedures for the transfer of information to the supervising physician. This course includes DOT Paramedic Program Modules XV and XIV.

Module XV Telemetry & Communication
XVI Extrication & Rescue Techniques

***EMT-P 0103 — Paramedic Skills III (11)**

This course has an intensive emergency coronary care emphasis. Although much of the emphasis is placed on rhythm interpretation, this course also deals with pathophysiology, symptomalogy, and emergency treatment of coronary artery disease, MI, angina pectoris, congestive heart failure, and any other cardiac emergency. This course is also designed to introduce the student to the general groups of drugs and the classification of each. Therapeutic effect, indications, contraindications, correct dosage, and side effects of specific drugs used in emergency situations is taught with emphasis placed on those drugs used in cardiac emergencies. This course includes DOT Paramedic Program Modules VI and IV.

Module VI Cardiovascular System
IV General Pharmacology

***EMT-P 0104 — Paramedic Skills IV (10)**

This course is designed to take basic skills and knowledge already acquired by the student and build on them in the areas of Medical Emergencies, Obstetric/Gyn Emergencies, Musculoskeletal and Soft Tissue Injuries, and Pediatrics and Neonatal Transport. More emphasis is placed on clinical and on squad experience where the student will be able to inner-relate all he has learned. This course includes DOT Paramedic Program Modules VII, VIII, IX, X, XI, XII, and XIII.

Module VII Central Nervous System
VIII Soft Tissue Injuries
IX Musculoskeletal System
X Medical Emergencies
XI Obstetric/Gyn Emergencies
XII Pediatrics & Neonatal Transport
XII Emergency Care of Emotionally Disturbed

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 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; scales; dimensions; fits and finish marks; surface roughness and lay, threads; rivets; tapers; and examples of blueprint reading.

***Denotes classes with Lab fees.**

***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 fundamental principles of engineering drawing through actual experience in both freehand 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, quantity takeoff, 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 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, 0140A, 140B, 140C, and 140D.

In additon, 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, 0115, 140A, 140B, 140C, and 140D

In addition, 3 hours of speech from Speech 0101 or Speech 0102 is required for students completing the Associate of Arts Degree or the Associate of Science Degree.

Students with serious deficiencies in reading and composition should take Engl 0100A before taking English 0111, 0112, 0115, 140A, 140B, 140C, and 140D.

Engl 0004 — Reading Development (2)

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.)

Engl 0090 — Vocabulary Development (2)

Emphasis is placed upon development of skills necessary for building vocabulary.

Engl 0100A — Fundamental Writing (4)

This is a transitional course for the student who feels he has a basic weakness in reading or writing skills or one who has been away from classroom work for a number of years and recognizes the need for a better foundation for more advanced classroom work. Areas of concentration are (1) reading comprehension, (2) vocabulary development, (3) sentence and paragraph structure.

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 Communications (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 OPENED TO 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 Feminine Images of Literature	4 hrs.
140-C Literature of Imagination	4 hrs.
140-D Literature of Black Authors	4 hrs.

****Engl 0200 — Introduction to Literature (4)**

This course introduces the student to the three genres of literature: fiction, poetry, and drama. It emphasizes skills, techniques, and the language of interpretation of literature. It provides students with information which will help them in further literature courses or in other purposeful or pleasurable reading.

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.
The course requires an intensive reading of selected poems from all periods of English and American literature and the study of poetic forms and techniques.

202-A Survey of British Poetry:	Part I 4 hrs.
202-B Survey of British Poetry:	Part II 4 hrs.
202-C Survey of American Poetry:	Part I 4 hrs.
202-D Survey of American Poetry:	Part II 4 hrs.

Engl 0203 — Introduction to Drama (4)

Prereq. 4 hrs. above 100.
Modern dramatic forms are analyzed. Selctions 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 100.
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 100.
Selected literary works are used which provide background for and examples of modern writing in today's world.

***Denotes classes with Lab fees.**
****Offered on demand only.**

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 American literature are studied.

****Engl 0232 — Creative Writing — Poetry (3 hrs.)**

Prereq. 8 hrs. above 100.
Creative writing — Poetry is a course for students interested in learning the techniques of poetic expression. Students will have experiences writing conventional blank, and free verse forms. (Not offered Winter Qtr.)

****Engl 0288 — Poetry Workshop (3)**

Prereq. Engl 0232.
Poetry Workshop is an advanced course in the writing of poetry. The emphasis will be placed on critiquing the writing of students in the class and on marketing for publication. (Offered winter and summer quarters.)

****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.

FRENCH

****Fren 0111 — Elementary French I (4)**

Beginning course of a three quarter, first year sequence. Basic grammatical concepts and patterns. Emphasis on development of reading, listening, comprehension, speaking, and writing skills. Basic text and workbook used.

****Fren 0112 — Elementary French II (4)**

Prereq. Fren 0111.
Continuation of Fren 0111. Basic text, workbook, and readings used.

****Fren 0113 — Elementary French III (4)**

Prereq. Fren 0112.
Continuation of Fren 0112. Basic text, workbook, and readings used.

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 interrelationships.

Geog 0201 — Environmental and Man (4)

Geographic survey of environmental changrs caused by man's activities. Focus on pollution of air and water and destruction of plant and animals 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**

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.

Geog 0243 — Geography of Appalachia (4)

A study of Appalachia from a geographical approach including a detailed examination of physical aspects (climate, soil, vegetation, minerals, and water resources), historical development both past and present, settlement patterns, and economic patterns of the region.

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 affecting 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. 4 lec.

GOVERNMENT

Govt 0100 — Introduction to the American Political System (4)

An elementary course in the basic fundamentals of the American political system at the national, state and local levels. Not recommended for those planning to transfer to another college or to a university.

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.

***Denotes classes with Lab fees.**
****Offered on demand only.**

****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 0290 — Pro Seminar in Practical Politics (4)**

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	Caving
110-I	Karate
110-J	Billiard
110-K	Dance
110-L	Canoeing
110-M	Beginning Tennis
110-N	Intermediate Tennis
110-O	Volleyball
110-P	Backpacking
110-Q	Cycling
110-R	Rock Climbing
110-S	Softball
110-T	Orienteering
110-U	Skiing
110-V	Swimming
110-W	Intermediate Swimming
110-X	Life Saving
110-Y	Jogging
110-Z	Diving
0111	Advanced Tennis

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 (4)

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 (4)

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. Qrt. Only)*

Rules, mechanics, and procedures in officiating. Practice under actual game conditions. State certification upon successful completion of state examination. OHSSA 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 0250 — Recreation Leadership (4)

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 (4)

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, rhythmics and innovative devices in helping to meet general and specific objectives in the intermediate grades. Designed for elementary education majors.

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 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 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 0201 — Western Civilization from Antiquity to the Renaissance (4)

Birth of civilization in Near East; culture of Greece and Rome; establishment of Christianity; formation and evolution of medieval European society; Renaissance.

Hist 0202 — Western Civilization from the Renaissance to the French Revolution (4)

Renaissance; rise of nation state system; Reformation; commercial and scientific revolutions; absolutism and constitutionalism; Enlightenment and the French Revolution.

Hist 0203 — Western Civilization from 1815 to the Present (4)

Industrial Revolution; spread of liberalism, nationalism and socialism; rise and fall of German bid for power in two world wars; Russian and Chinese revolutions and international communism; collapse of European empires in Africa and Asia; Cold War and the new Europe.

****Hist 0290A — Topics in History (2)**
****Hist 0290B — Topics in History (3)**
****Hist 0290C — Topics in History (4)**
This course will provide students and the instructor the opportunity to explore topics of special interest to them. Depending on enrollment, the course may be conducted as a traditional lecture/discussion class, special projects, or directed readings.

HUMANITIES

Humn 0101 — Tradition of Great Books (4)

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)

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)

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 Communications (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.

LINGUISTICS

Ling 0270 — The Nature of Language (5)

Nontechnical investigation into basic nature of human language.

***Denotes classes with Lab fees.**
****Offered on demand only.**

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 100A 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, start at the level appropriate for him.

Math 0100A — 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. (Does not count toward a degree.)

Math 0100B — Math Appreciation (4) (Offered on demand only)

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)

This course is for students with a good background in arithmetic but little or no background in algebra. It includes operations with integers, numbers properties, scientific notation, solving and graphing linear equations and inequalities, operations with polynomials, laws of exponents, and laws of radicals.

Math 0105 — Business Mathematics (4)

Brief review of arithmetic with emphasis on estimating answers. Simple algebra skills. Applications in the personal and business world including reconciliation of a checking account, markup, real estate taxes, depreciation, payroll, and payroll deductions, inventory valuation, and simple and compound interest on investments and loans. Use of calculators and microcomputers.

Math 0106 — Business Statistics (4)

Prereq. Math 0101.
An introduction to the vocabulary, concepts, presentation, and formulas of statistics as applied to business. Calculators and computers are incorporated into the course. Averages, measures of dispersion, understanding proper and improper uses of statistics, and probability and sampling theory, including tests of significance.

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; progressional quadratic equations; graphing quadratic functions; use of programmable calculator; basic statistical concepts.

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 ofAlgeraic 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 Vector.

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 & Behavioral Sciences (4)

Prereq. 3 yrs. of h.s. math or Algebra I *and* either Govt. 101, Psy. 101, or Soc. 101. (Not for mathematics 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)

Prereq. 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.

***Denotes class with Lab fees.**

MEDICAL LABORATORY TECHNICIAN

MLTC 0111 — Medical Laboratory Orientation I (1)

To introduce the student to the profession of medical laboratory technology and to the medical terminology associated with medical laboratory sciences. 1 lec. 1 lab.

MLTC 0112 — Medical Laboratory Orientation II (1)

Prereq. MLTC 0111.
Introduction to basic laboratory procedures. Emphasis will be placed on laboratory safety, bookkeeping, blood collection, pipetting and the use of basic laboratory instruments, such as microscope, centrifuge, analytical balance, spectrophotometer, etc. 1 lec. 1 lab.

***MLTC 0201 — Urinalysis (3)**

Physical, chemical and microscopic examination of urine. Theory and applications of various laboratory tests in relation to kidney function. Brief discussion of other important body fluids. 2 lec. 3 lab.

***MLTC 0202 — Immunoserology (4)**

Prereq. Biol 0235A.
Introduction to basic immunology with emphasis on the principles and applications of serological techniques in diagnostic tests. 3 lec. 3 labs.

***MLTC 0203 — Blood Banking (4)**

Prereq. MLTC 0202.
Lectures and laboratory procedures in blood banking. Principles of blood grouping and human blood groups inheritance. Routine procedures for pretransfusion testing, antibody screening and identification. Donor selection, blood collection and processing will be discussed. Hemolytic disesases of the newborn, preparations of blood components, their storage and utilization will also be introduced.

***MLTC 0204 — Parasitology (1)**

Prereq. Biol 0235A.
Introduction to medically important human parasites. Emphasis will be placed on collection, preservation and laboratory identification. 1 lec. 2 lab.

***MLTC 0205 — Mycology (1)**

Prereq. Biol 0235A.
Introduction to medically important fungi, the diseases they cause, and their laboratory diagnosis. 1 lec. 2 lab.

***MLTC 0207 — Clinical Bacteriology (5)**

Prereq. Biol 0235A.
Diagnostic procedures for identification of medically important bacteria. Emphasis will be placed upon staining, cultural, biochemical and serological characteristics of various pathogenic bacteria. 3 lec. 6 lab.

***MLTC 0209 — Hematology I (4)**

Basic laboratory methods in hematology, including cell counting, hemoglobinometry, cell morphology, etc. Detailed studies of blood cell maturation and development, abnormalities in peripheral blood and in bone marrow with emphasis on red cells and anemias. 2 lec. 6 lab.

***MLTC 0210 — Hematology II (4)**

Prereq. MLTC 0209.
Continuation of Hematology I with emphasis on white cells, leukemias and special procedures in the study of blood diseases. Detailed study of hemostatic mechanism and hemorrhagic disorders, as well as their laboratory evaluations, are included. 2 lec. 6 lab.

***MLTC 0211 — Instrumentation (4)**

Prereq. Chem 0123.
Introduction to instrumentation in the clinical laboratory. Emphasis is placed upon the theory of operation, essential components, mechanism of operation and applications of various laboratory instruments such as spectophotometer, fluorometer, atomic absorption spectrophotometer, flame emission photometer, coulometric titrator, automated analyzer, etc. 2 lec. 6 lab.

***MLTC 0212 — Clinical Chemistry I (4)**

Prereq. MLTC 0211.
Principles, practices and techniques of analysis of chemical components in serum, as well as other body fluids are studied. Emphasis is placed on the specific chemical reactions and/or analytical principles, sources of error, quality control, practical application and theoretical aspects of the above procedures as related to normal and abnormal states. 2 lec. 6 lab.

***Denotes classes with Lab fees.**
****Offered on demand only**

***MLTC 0213 — Clinical Chemistry II (4)**

Prereq. MLTC 0212.
Continuation of Clinical Chemistry I, MLTC 0212. 2 lec. 6 lab.

***MLTC 0220 — Clinical Practicum (13)**

Prereq. Completion of all required MLT courses with a minimum of "C' in each course and a minimum of 2.000 accumulative grade point average.
Two quarters (22 weeks) of internship providing a practical application of the skill and knowledge learned during the previous six quarters of the curriculum. Students are assigned to accredited hospital laboratories as trainees. The rotation schedule consists of four weeks in Hematology - Coagulation; six weeks of Chemistry; four weeks in Immunohematology-Immunoserology; four weeks in Microbiology; two weeks in Urinalysis; two weeks of electives.

MUSIC

Musi 0120 — Introduction to Music Literature (3)

Development of listening skills for understanding elements of musical style in historical perspective and signifiance of music as a fine art.

****Musi 0121 — Introduction to Baroque Music (2)**

Prereq. 120 or permission.
Study of selected works from Baroque style periods through readings, tapes and recordings.

****Musi 0122 — Introduction to Music of the Classical & 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 movements.

Musi 0170A, 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 0180A — College Chorus (2)

Prereq. Permission (audition) (4 lab. hours)

Musi 0180B — College Ensemble (2)

Mixed ensemble, some touring. (Membership by audition) (4 lab. hours.)

****Musi 0181 — College Band (2)**

Prereq. Permission (audition) (4 lab hrs.)

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

Only students officially accepted into the program or those with approval of the Program Director may take the courses with the ADNr prefix. All ADNr courses must be taken in sequence.

***ADNr 0101 — Nursing I - Fundmentals I (8)**

Prereq. Admission to the Associate Degree Nursing program. Introduction to the use of nursing process system to enable individuals to maintain or regain ability to meet daily living needs regardless of age. Emphasis will be placed on the assessment components of the nursing process. Fundamental skills and related scientific principles of nursing are presented. Laboratory practice provides the opportunity to develop beginning skills in both technical and interpersonal aspects of nursing. 5 lec. 9 lab.

ADNr 0102 — Nursing II - Fundamentals II (8)

Prereq. 2.0 average or better in courses required for fall quarter of first year. Development of basic nursing skills will be continued. A beginning study of medical-surgical nursing concepts relevant to all age groups will be presented. Utilization of all components of the nursing process is introduced.

ADNr 0103 — Nursing III - Nursing of Adults and Children I (8)

Prereq. 2.0 average or better in courses required in winter quarter of first year. Focuses on implementing the nursing process in meeting basic needs of the adult or child experiencing stressors related to safety and security, activity and rest, and sexual role satisfaction. Further development of technical skills will be included. 4 lec. 12 lab.

ADNr 0201 — Nursing IV - OB Maternal-Newborn Nursing (5)

Applies the nursing process in the study of the normal aspects of the maternal cycle and the normal, newborn infant. Common recurring stressors related to the maternal-newborn cycle are presented. Skills needed to provide family-centered nursing in normal and stress situations will be introduced. 6 lec. 12 lab. (5 week course)

ADNr 0202 — Nursing V - Mental Health and Illness (5)

Presents concepts of mental health and selected deviant emotional and mental responses to stress. Provides the student with the opportunity to increase self-awareness and develop beginning skills in the use of self. Application of the nursing process in providing nursing care for clients with specific behavior patterns is included. 6 lec. 12 lab. (5 week course)

ADNr 0203 — Nursing VI - Trends (2)

Concerns of nursing, past, present, and future are explored. Relationships of technical nurse to health professions and community are considered. Future personal development of individual technical nurses is discussed. Legal and ethical implications for nursing practice are examined. 3 lec. 0 lab.

ADNr 0204 — Nursing VII - Nursing of Adults and Children II (10)

Applies the nursing process in caring for adults and children experiencing stressors affecting oxygen transport and fluids and electrolytes balance 6 lec. 12 lab.

ADNr 0205 — Nursing VIII - Nursing of Adults and Children III (9)

Systematically apply the nursing process in caring for groups of patients. Synthesizes previous knowledge for utilization of the nursing process with adult and child clients experiencing stressors affecting nutrition and elimination. 4 lec. 15 lab.

ADNr 0206 — Nursing IX - Nursing Seminar (3)

The knowledge base essential to the practice of nursing is enlarged to include the role of the technical nurse as a member of the health team. A theoretical and practical approach to assessment and setting nursing care priorities will be explored. Transition from student role to graduate role will be explored. 3 lec. 0 lab.

***Denotes classes with Lab fees.**

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 contribution 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)**

This 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.

LPNr 0114 — Practical Nursing IV (9)

Prereq. LPNr 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 musculoskeletal 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.

LPNr 0115 — Practical Nursing V (6)

Prereq. LPNr 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.

LPNr 0116 — Practical Nursing VI (8)

Prereq. LPNr 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 post-partum; and study and care of the newborn. Concurrent learning experience is provided in Scioto Memorial Hospital and by observation in the Prenatal Clinic.

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, ideas 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 meterology and geology. Topics in meterology 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)**

Designed for nonscience majors. Fundamental ideas of 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)**

Designed for nonscience majors. Fundamental ideas of energy. Topics include heat, light, sound, electricity, solar energy, and nuclear energy. 3 lec. 3 labs.

***PSci 0104 — Physical World (4)**

Designed for nonscience majors. Fundamental ideas of astronomy. Topics include the solar system, stars, galazies, black holes and the history of ideas about the universe. 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.

****PSci 0290A — Topics in Physical Science (1)**
****PSci 0290B — Topics in Physical Science (2)**
****PSci 0290C — Topics in Physical Science (3)**
****PSci 0290D — Topics in Physical Science (4)**
Study of topics otherwise unavailable to students.

***Denotes classes with Lab fees.**
****Offered on demand only.**

PHYSICS

Phys 0100A — 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 0201. 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.

***Phys 0202 — 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. Electric power and energy. Electromagnetism and electromagnetic induction. Properties of alternating current, simple A-C circuits. Generators and motrs. 3 lec. 3 lab.

***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 0103 — Industrial Electricity (3)**

Prereq. PMnt 0101 and PMnt 0102.
This course is designed to familiarize the student with the National Electrical Code, to familiarize the student with practice used in industry to installing conduit, conduit fittings, electrical conductors, switching equipment, overload protection, and equipment.

PMnt 0111 — Industrial Electronics (4)

Prereq. PMnt 0101, 0102.
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)**

Prereq. PMnt 0111.
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 scalers, knput and output transducers, recording devices, ultrasonics, mechanical linkages, synchros. positions detectors and controls, carrier current transmission, telemetering and remote control.

PMnt 0211 — Fluid Mechanics I (4)
Prereq. Math 0101, Physics 0201.
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)

Prereq. PMnt 0211.
This is a continuation of Fluid Mechanics I and stresses the application of working formulas such as the Bernouli 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 (4)

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 (4)

Prereq. PMnt 0221.
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 of 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 I (4)

Prereq. PMnt 0221, 0211, 0212, 0222.
The student is introduced to basic industrial control circuits and schemes. This course includes pneumatic, hydraulic, electrical, and electronic control.

PMnt 0225 — Industrial Control II

Prereq. PMnt 0224.
This course is to familiarize the student on the procedures of changing the PC10 process plant from analog to digital control, using a program controller as the digital control device.

PLASTICS/CHEMICAL

***PEng 0101 — Introduction to Plastics/Chemicals (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.

***Denotes classes with Lab fees.**
****Offered on demand only.**

***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 blowing 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 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 & 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 Plastics 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, thermo-forming) will be discussed.

PSYCHOLOGY

Psyc 0100 — Learning Orientation (4)

The course will employ the use of nemonic 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 0105 — Career Planning (4)

An exploratory investigation of career planning.

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 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 — Topics in Psychology (1)**
***Psyc 0290B — Topics in Psychology (2)**
***Psyc 0290C — Topics in Psychology (3)**

Prereq. Permission of instructor is required.
Topics of special interest to students are investigated under the direction of the psychology staff. This course may be repeated, but not to exceed a total of six credit hours.

QUANTITATIVE METHODS

QMet 0201 — Introduction to Probabilities & Statistics

Sample designs, sampling distribution of sample statistics, and estimation (point and interval) of parameters. Beayesian and classical (hypothesis testing) decision theory, contingency table analysis and analysis of variance. Regression and correlation analysis.

RADIOLOGIC (X-RAY)

***RdIT 0101 — Radiologic Technology I (3)**

This course is designed to acquaint the new student with the goals, philosophies, and organizations of the radiography program and Radiology Department. Medical ethics, elementary radiation protection, and radiographic positioning of the chest and abdomen are covered. STUDENTS will be scheduled by the college 8 clock hours per week for hospital-based clinical education.

***RdIT 0102 — Radiologic Technology II (2)**

This course concentrates on radiographic positioning of the upper and lower extremities. STUDENTS will be scheduled by the college 8 clock hours per week for hospital-based clinical education.

***Denotes classes with Lab fees.**
****Offered on demand only.**

RdIT 0103 — Radiologic Technology III (3)

This course concentrates on radiographic positioning of the spine and skull.

RdIT 0104 — Radiologic Technology IV (3)

This course concentrates on radiographic procedures using contrast media, radiographic practices for surgery, pediatric radiography, and other specialized areas of radiography.

RdIT 0105 — Radiologic Technology V (4)

Discussion of cardiovascular special procedures and necessary equipment for these examinations.

RdIT 0106 — Radiologic Technology VI (4)

Advanced radiographic exposure techniques. Includes information on nuclear medicine, radiation therapy, ultrasound thermography, fluroscopy and image intensification.

RdIT 0107 — Radiologic Technology VII (4)

A series of lectures by guest physicians to acquaint the student with various pathologic conditions of the body and their impact on the radiographic process. Includes student participation in film evaluation and discussion of related journal articles.

RdIT 0108 — Radiologic Technology VIII (4)

American Registry Examination review and film evaluation.

RdIT 0110 — Radiologic Elecricity-electronics (3)

A study of the basic electrical-electronic principles associated with radiography. Topics include electrostatics, DC and AC currents, Ohm's Law, series and parallel circuits, magnetism, electromagnetic induction, transformers, and basic electronics.

RdIT 0111 — Radiologic Physics (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, methods of rectification, with special emphasis on modern x-ray tubes, three-phase generators, and basic x-ray circuits.

RdIT 0200 — Basic Patient Care (3)

The content of this course provides the student with knowledge and basic skills necessary for care of the patient. Includes medical and professional ethics and medical terminology.

***RdIT 0201 — Radiographic Exposure (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.

RdIT 0211 — Clinical Experience 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.

RdIT 0212 — Clinical Experience II (2)

Prereq. 0211.
Supervised sessions emphasizing the practical application of theory. Students will be scheduled as minimum of 16 clock hours each week for hospital-based clinical education.

RdIT 0213 — Clinical Experience 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 — Clinical Experience IV (6)

Prereq. 0213.
Supervised sessons emphasizing the practical application of theory. Students will be scheduled a minimum of 32 clock hours each week for hospital-based clinical education.

RdIT 0215 — Clinical Experience 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.

RdIT 0216 — Clinical Experience 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 (Radiographic Processing) (2)**
Includes discussions of film characteristics, artifacts, film storage and handling, processing room design and function, methods, principles and chemistry of processing systems, and silver reclamation.

RdIT 0222 — Seminar II (2)
Introduction to equipment maintenance and quality control in the Radiology Department. Maintenance of automatic processor and monitoring; screen-film contact testing, collimator accuracy, timer accuracy and accuracy of MA and KVp stations.

RdIT 0223 — Seminar III (2) (Principles of Radiobiology and Radiation Protection)
Interactions of radiation with matter, radiation biology, somatic and genetic effects of radiation, units of measurement, and protection principles for patients and operators.

RdIT 0224 — Seminar IV (2)
Students participation in areas such as ethics and responsibilities in the Radiology department. A problem of special interest requiring library and/or clinical study will be selected by the student and the instructor.

RECREATION AND PARKS MANAGEMENT

RAPM 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. 2 lec. 3 lab.

RAPM 0102 — Soils Management (3)
Prereq. or concurrent or permission of instructor. Field Biology.
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. 2 lec. 3 lab.

RAPM 0103 — Hydrology & Water Quality (3)
A detailed study of the hydrologic cycle and its many aspects along with the conservation of water and water resource development. Problems and concerns of water quality will be presented including: sources of pollution, water sampling and testing methods, waste water treatment, potable water sources and treatment, and short and long term effects of water pollution. 2 lec. 4 lab.

RAPM 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 indentification of mammals, birds, reptiles, amphibians, and fish will be emphasized in the lab.

RAPM 0121 — Parks and Recreation Internship (6)
Eleven weeks' supervised work experience. Supervisory visits by instructor. Weekly seminars for critique of experience. Weekly evaluation reports.

RAPM 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. 2 lec. 6 lab.

RAPM 0202 — Forest Management and Recreation (4)
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. 3 lec. 3 lab.

RAPM 0203 — Maintenance of Recreation Areas (4)
Maintenance of recreation areas including park grounds, water areas, turf, trees, buildings, vehicles, equipment, and paved areas. Additional emphasis on employee safety and the development of a maintenance plan. 3 lec. 6 lab.

RAPM 0204 — Fiscal Operations (3)
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. 2 lec. 4 lab.

RAPM 0205 — 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 attractivity and useability. Students are presented with problems of individual elements of park design. As each of these situations is 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. 1 lec. 6 lab.

RAPM 0206 — 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. 2 lec.

RAPM 0207 — 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. 1 lec. 1 lab.

RAPM 0208 — Water Recreation (3)
Prereq. or concurrent or permission of instructor; Introduction of Recreation & Outdoor Recreation.
Study of water-related recreational facilities such as mariinas, swimming areas, and fishing. Consideration will be given to boating laws, operation, and safety and all forms of water recreation. 2 lec. 4 lab.

RAPM 0209 — Parks Protection (2)
Prereq. or concurrent of permission of Instructor. Maintenance of Recreation Areas 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. 1 lec. 4 lab.

RAPM 0210 — 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. 2 lec. 4 lab.

***Denotes classes with Lab fees.**

RESPIRATORY THERAPY

RpTT 0101 — Introduction to Respiratory Therapy (1)
This course consists of (1) a series of lectures designed to introduce the student to the profession of respiratory therapy, the structure and administration of a respiratory therapy department, and to basic techniques of patient care; (2) a programmed learning experience designed to prepare the student in the proper utilization of medical terminology.

***RpTT 0102 — Fundamentals of Respiratory Care (5)**
This course consists of a series of lectures and laboratory experiences designed to introduce the student to the basic equipment utilized by the respiratory therapy technician and the clinical application of that equipment. It will include a discussion of the physical and chemical properties of medical gases, as well as their manufacture, storage, and safe handling. Additional emphasis will be placed on the indiciation, contraindication, hazards, and goal assessment for oxygen therapy, humidity and aerosol administration, bronchial hygiene and pulmonary drainage, I.P.P.B., sustained maximal inspiratory therapy, physical assessment, and infection control.

RpTT 0110 — Clinical Practice I (1)
This is an introduction to the clinical setting for the respiratory therapy technician. Orientation to the hospital environment including policies and procedures of the respiratory therapy department, the role of departmental personnel within their institution's function, charting and record keeping will be emphasized.

RpTT 0111 — Clinical Practice II (6)
Instruction in and practical application of procedures and equipment in the areas of medical gas systems, oxygen therapy, humidify and bland aerosol therapy, sustained maximal inspiratory maneuvers, physical assessment, infection control, and prophylactic and bland I.P.P.B.

RpTT 0112 — Clinical Practices III (6)
Instruction in and practical application of procedures and equipment in the areas of medicinal aerosol therapy, therapeutic, I.P.P.B., bronchial hygiene and pulmonary drainage, suctioning and sputum collection, care of the artificial airway, and continuous mechanical ventilation.

RpTT 0113 — Clinical Practice IV (8)
Instruction in and practical application of procedures and equipment in the areas of arterial sampling techniques, pulmonary function testing, EKG testing, pediatric and neonatal respiratory care, and advanced techniques, procedures, and monitoring of continuous mechanical ventilation.

RpTT 0121 — Cardiopulmonary Physiology (5)
This course consists of a series of lectures on the anatomical and physiological concepts and principles related to normal and abnormal lung function. Topics discussed will include a review of respiratory and cardiac anatomy and physiology, the process of ventilation, the mechanics of breathing, gas exchange, ventilation-perfusion relationships, gas transport, acid-base balance, and the control of ventilation.

RpTT 0201 — Respiratory Pathophysiology (5)
This course consists of a series of lectures focuses on the most commonly encountered cardiopulmonary diseases. Each disease entity will be explored as to its etiology, pathophysiology, progression, treatment, and prognosis. The course also includes discussions of the manifestations of pulmonary diseases and the clinical radiologic, and laboratory assessments utilized in the diagnosis and treatment of cardiopulmonary diseases.

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.

***Denotes classes with Lab fees.**

***RpTT 0211 — Respiratory Critical Care I (3)**
This course consists of a series of lectures and laboratory experiences focused on the role of respiratory failure in the adult patient. The discussion will attempt to follow the course of a patient from initial onset of decompensation, through mechanical ventilation and weaning, and finally to discontinuation of mechanical ventilation and extubation. The laboratory experiences are designed to explore the most commonly used procedures and equipment associated with continuous mechanical ventilation of the adult patient.

RpTT 0211A — Respiratory Critical Care II (2)
This course consists of a series of lectures focused on advanced concepts involved with the care of an adult patient receiving continuous mechanical ventilation. Specific emphasis will be placed on the areas of physiologic monitoring, analysis of cardiac arrhythmias, cardiac assist and monitoring devices, and the pathophysiologic interrelations of multiple organ failure and acute respiratory failure.

***RpTT 0212 — Respiratory Therapy Procedures II (4)**
Thic course consists of a series of lectures and laboratory experiences focused on the theoretical consideration, procedures performed and equipment utilized by the respiratory therapy technician in the content areas of pulmonary function testing, pulmonary rehabilitation, and neonatal mechanical ventilation.

RpTT 0213 — Clinical Application of Respiratory Care (3)
This course consists of a series of lectures and laboratory experiences designed to review the theoretical considerations, procedures performed, and equipment utilized by the respiratory therapy practitioner. It is the intent of this course to review the principles and practice of Respiratory Care so as to prepare the student for the transition from technician to therapist.

RpTT 0214 — Clinical Practice V (2)
This course will consist of a series of clinical lab lectures, practice sessions, and hospital experience modules. The clinical laboratory skills in assessing the patient with pulmonary disease, evaluation the efficacy of therapy, and training the student to function as a bedside physician assistant.

RpTT 0215 — Neonatal Respiratory Care (3)
This course consists of a series of lectures and laboratory experiences designed to explore the theoretical considerations, procedures performed, and equipment utilized in the areas of pediatric, neonatal, and perinatal respiratory care. Emphasis will be place don the pathophysiology and treatment of those disorders most commonly encountered.

RpTT 0216 — Clinical Practice VI (2)
This course will consist of series of clinical lab lectures, practice sessions, and hospital experience modules. The clinical laboratory lectures and practice sessions are designed to promote the students' skills in the area of advanced respiratory care with emphasis on the care and transport of the high risk neonate.

RpTT 0217 — Advanced Cardiopulmonary and Renal Physiology (4)
This is an advanced level course designed to provide the student with an in-depth analysis of the pulmonary, cardiovascular, and renal anatomy and physiology. These concepts will be related to the principles and practice of respiratory care with emphasis on the areas of respiratory pathophysiology.

RpTT 0218 — Respiratory Therapy Departmental Organization and Administration (3)
This is an introductory level course in the organization and management of a respiratory care department. Emphasis is placed on the principles and practice of personnel management as would be applicable to all levels of management.

RpTT 0219 — Pulmonary Diagnostics (3)
This course consists of a series of lectures and laboratory experiences designed to explore the theoretical considerations, procedures performed, and equipment utilized in the area of pulmonary function testing. Emphasis will be placed on advanced testing procedures and their interpretation and significance.

RpTT 0220 — Clinical Practice VII (2)
This course will consist of a series of clinical practice sessions and hospital experience modules designed to sharpen the students' skills in the area of pulmonary function studies. Emphasis will be placed on the performance of advanced procedures, their interpretation, and their significance.

RpTT 0221 — Topics in Clinical Medicine (3)
This course is (1) a series of lectures devoted to the clinical application of the theoretical considerations, procedures performed, and equipment utilized by the respiratory therapist in the topic area of respiratory critical care and (2) an analysis of current literature pertaining to the field of respiratory care.

RpTT 0222 — Ethical and Legal Considerations (2)
This course is a series of lectures and discussions designed to explore the ethical considerations of the practice of respiratory care and the associated legal implications, responsibilities, and processes.

RpTT 0223 — Therapy Seminar (2)
This is an independent research study into any specialty topic area of interest to the student. The student has the responsibility of (1) locating a sponsor proficient in the specialty area willing to meet with the student; (2) submitting a list of proposed behavioral objectives to the clinical coordinating and program director; (3) submitting three written reports of the students' progress and a final thesis summarizing what the student has learned, and (4) submission of weekly reports signed by the sponsor attesting to the students' attendance for in-house training at least two hours per week.

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, short tabulated reports, and manuscripts.

***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. All students will study the uses of the electronic typewriter.

ExST 0104 — Typing IV (3)
Prereq. Typing I, II, and III.
Typing IV consists of an introduction to a word processing system.

ExST 0105 — Typing V (3)
Prereq. Typing I, II, III, and IV.
Typing V consists of advanced word processing projects. The composed typewriter will also be introduced.

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, puncutation, and grammar.

ExST 0112 — Shorthand II (3)
Prereq. Shorthhand 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.

ExST 0113 — Shorthand III (3)
Prereq. Shorthand I and II.
A continuation of Shorthand II with greater emphasis on building speed and accuracy.

ExST 0214 — Shorthand IV (3)
Prereq. Shorthand I, II, and III.
Emphasizes speed building and increasing mailable copy rate.

ExST 0215 — Shorthand V (3)
Prereq. Shorthand I, II, III, and IV.
Further emphasizes speed in taking dictation and an increased mailable copy rate.

ExST 0216 — Shorthand VI (1)
Prereq. Shorthand I, II, III, IV, and V.
A course designed to increase each student's ability to take dictation at high rates of speed and transcribe it into mailable copy.

***ExST 0120 — Business Machines I (3)**
A course designed to develop the student's ability to use electronic calculators.

ExST 0121 — Introduction to Word Processing (4)
Prereq. Minimum typing speed of 30 wpm.
Word processing concepts and skills will be presented to the person with no previous training in word processing.

***ExST 0221 — Dictation and Transcription I (3)**
Prereq. Typing I, II, and III.
A course designed to develop the student's ability to use transcription equipment for mailable copy.

***ExST 0222 — Dictation and Transcription II (3)**
Prereq. Dictation and Transcription I; Typing I, II, & III; and Shorthand I, II, & III or three basic business electives.
A course designed to introduce the student to a medical and a legal vocabulary. The general majors will complete their course requirements using transcription equipment and the executive majors will use their shorthand skills.

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, and III; Shorthand I, II, and III, or three basic business electives for general majors; Records Management; Business Machines I; and Dictation and Transcription I.
This class is designed to emphasize the responsibilities and opportunities of a secretarial position. It encompasses a variety of secretarial duties such as: using word processing equipment, using transmittal services, assisting with travel arrangements, planning meetings, and presenting busines data. The personal qualities of a professional secretary and job opportunities available to the college-trained secretary are also discussed.

***ExST 0242 — Secretarial Practices II (3)**
Prereq. Secretarial Practices I, Dictation and Transcription II, Typing IV, and Shorthand IV or basic business elective.
This class will give the student the opportunity to complete a legal secretarial practices project and a medical secretarial practices project.

***ExST 0243 — Secretarial Practices III (5)**
Prereq. All classes in major that are required for graduation. General secretarial majors must have completed all basic business electives required in place of shorthand.
This class is an office simulation project which is completed in the classroom.

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.

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.

***Denotes classes with Lab fees.**

***MdST 0221 — Medical Dictation and Transcription I (3)**
Prereq. Typing I, II, & III and Shorthand I, II, and III.
Emphasis is on the development of mailable transcription from a transcribing machine, medical vocabulary building, and a review of punctuation and spelling.

***MdST 0222 — Medical Dictation and Transcription II (4)**
Continuation of MdST 0221. Emphasis is on mailable transcription to meet medical office standards.

MdST 0223 — Medical Terminology I (3)
Prereq. Shorthand I, II, & III.
Develops skill in writing and transcribing words and phrases occuring in the spoken and written language of medicine.

MdST 0224 — Medical Terminology II (3)
Continuation of MdST 0223.

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.

MdST 0242 — Medical Secretarial Practices II (2)
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.

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.

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.

***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.

***LgST 0222 — Legal Dictation and Transcription II (4)**
Continuation of LgST 0221. Emphasis is on mailable transcription to meet legal office standards.

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.

LgST 0224 — Legal Terminology & Judicial Procedures II (3)
Continuation of LgST 0223.

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.

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 or 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.

***Denotes classes with Lab fees.**
****Offered on demand only.**

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, courthship, marraige 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- 1115 — 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 organizations, 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 trips 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 — Interviewing and Counseling (2)
A study of interviewing and counseling techniques, in general, and their specific applications to social services. Some special emphasis to be considered are: improving clients' self-image, stimulating motivation, increasing one's ability to communicate, and helping clients to develop problem solving techniques.

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 to the 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.

****Soci 0290A — Topics in Sociology (1)**
****Soci 0290B — Topics in Sociology (2)**
****Soci 0290C — Topics in Sociology (3)**

Prereq. Permission of instructor is required.
Topics of special interest to students are investigated under the direction of the sociology staff. This course may be repeated, but not to exceed a total of six hours.

***Denotes classes with Lab fees.**

****Offered on demand only.**

SPANISH

****Span 0111 — Elementary Spanish (4)**

Development of comprehension, speaking and reading skills. Basic grammar. Lab required. Beginning course of 3-qtr. 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. 3 lab.

****Span 0212 — 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. 3 labs.

****Span 0213 — Intermediate Spanish II (4)**

Prereq. Span 0212 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. 3 lab.

SPEECH

Spch 0101 — Speech I (The Fundamentals of Human Communication) (3)

Introductory analysis of oral communication in human relationships with focus on variety of contexts including: dyadic, small group, and public communication experiences. Serves as survey of human communication processes. Mass lecture.

Spch 0102 — Speech II (Fundamentals of Public Speaking (3)

Principles of public speaking. Practice in presenting informative and persuasive speeches with emphasis on communicative process.

****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 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 0290A — Topics in Communication (1)**
****Spch 0290B — Topics in Communication (2)**
****Spch 0290C — Topics in Communication (3)**

Study of various topics otherwise not available to students.

THEATER

Thar 0105 — Practicum in Management (2-4)

Supervised lab practice in problems of theater publicity, finance, and house management. May be repeated.

Thar 0110 — Introduction to Performance (4)

Introductory study of acting and actor. Emphasizes preparation of self and text, exploration of space, development of physical and vocal freedom through improvisation and theater games.

Thar 0135 — Practicum in Production Design (2-4)

Supervised lab practice in design and execution of scenery, lighting, costumes, properties, and sound. May be repeated.

Thar 0170 — The Theater Experience (4)

Exploration of nature and function of theater as art form through exploration of performer/space/audience interrelationship. Attendance at selected rehearsals and performances. Theater productions augment lecture and discussion sessions. Attendance at selected professional theatrical performances may be included.

Thar 0201 — Children's Theatre (5)

A course designed to cover dramatic compositions and practical production procedures for child audiences.

Thar 0205 — Practicum in Management (2-4)

Supervised lab practice in problems of theater publicity, finance, and house management. May be repeated.

Thar 0210 — Acting I (4)

Prereq. Thar 0110 or instructor permission.
Principles and techniques of acting with major emphasis on developing trust and freedom. Warm-up techniques, theater games, improvisation, monologue exercises, and preliminary scoring techniques underline this introduction to work of actor.

Thar 0215 — Practicum in Acting (2-4)

m in Production Design (2-4)

Prereq. Instructor permission.
Supervised lab practice in rehearsal and public performance of roles. May be repeated.

Thar 0220 — Oral Interpretation (3)

Techniques in oral interpretation and development of intellectual and emotional responsiveness to meaning of literature.

Thar 0235 — Practicum in Production Design (2-4)

Prereq. Instructor permission.
Supervised lab practice in design and execution of scenery, lighting, costumes, properties, and sound. May be repeated.

Thar 0237 — Basic Makeup (1)

Prereq. Theater or instructor permission.
Theory and practice of stage makeup.

WELDING

Weld 0101 — Welding Symbols and Prints (4)

A study of blueprint details of how sturctures 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 0111 — Basic Oxy-Acetylene Welding (4)**

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 Intert Gas Welding (3)**

Prereq. Weld 0111 and Weld 0113.
A course in the fundamentals of gas metal arc welding and tungsten intert gas welding. Special emphasis is placed on welding ferrous metals with these processes.

***Denotes class with Lab fees.**

***Weld 0113 — Basic Arc Wedling (4)**

Prereq. Weld 0111.
A study of all types of welded joints, stressing care, maintenance, and the use of the arc welder in fabrication of steel structures.

Weld 0102 — Template Layout and Construction (4)

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 0201 — Combined Welding I (4)**

Prereq. Weld 0111.
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 0114 — Advanced Arc Welding (4)**

Prereq. Weld 0111, 0112, 0113.
A course designed to give the student more advanced practice in gas metal arc and tungsten intert gas arc welding. The course includes the welding of non-ferrous alloys and position welding with these processes.

***Weld 0202 — Combined Welding II (4)**

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 0211 — Advanced Structural Welding (4)**

This course is designed to teach the experienced welder how to certify on structural welding using Electric Arc and welding machines. It also teaches students how to prepare, weld, and test open grove joints in all positions.

Weld 0122 — Welding Metallurgy (3)

The study of steel classifications, heat treatment procedures, properties of ferrous and on-ferrous metals, and non-destructive testing.
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 gases for welding shielding.

***Weld 0203 — Combined Welding III (4)**

A combined welding course covering gas arc theory and practice, structured for students needing more than the offering of Combined Welding II.

***Weld 0212 — Pipe Welding (6)**

This course is designed to teach the experienced welder how to certify on pipe welding in all positions using Arc, Mig., and Tig welding machines. It also teaches students how to prepare, weld, and test open grove joints.

***Weld 0213 — Advanced Pipe Welding (4)**

A course desinged to produce an experienced welder perpared for rapid advancement in the field. It includes nonferrous welding, alloy castings, welding of pressures, vessels, pipe fabrication, and more intricate welding procedures and application.

***Weld 0214 — 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. This course includes the welding of non-ferrous alloys and position welding with these processes.

***Weld 0216 — Welding Certification and Testing (6)**

Prereq. Weld 0211, 0212, and 0213.
A continuing of Weld 0211. Advanced Structural Welding, and Weld 0212. Advanced Pipe Welding, for qualification and certificating testing. Certification papers will be given to all students passing the bend test.

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John G. Galyean, Ph.D. ..... Coordinator

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Jack Lucas, M.A. (part-time) ..... Coordinator

Public Relations

Sallie Schisler ..... Director/Coordinator

ACADEMIC FACULTY

HUMANITIES/SOCIAL SCIENCES

Nancy Barnett, English — B.A., Ohio University, M.A., Marshall University
Shirley Crothers, Music — B.S., Ohio State University; M.A., Ohio University
Emily Gulker, Speech/Theater — B.S. Ed., Ohio State University; M.A., Marshall University
Betty Hodgden, English — B.A., Otterbein College; M.A., Marshall University
John Kelley, History/Government — B.A., Marian College; M.A. History, Indiana University; Additional Graduate Work, Indiana University.
Shannon Kiser, Coordinator, English — B.S., Moorhead State University; M.A., University of Kentucky
Eleanor Marsh, Sociology/Anthropology — B.A., Washington State University; M.A., Washington State University
Kathleen Simon, English — A.B., M.A., Eastern Kentucky University.
Thomas D. Stead, Art — B.F.A., M.F.A., Ohio University
Jerry Walke, Psychology — B.S. Capital University; M.A., Ohio University; Ph.D., Ohio State University
Betty Waller, Physical Education — B.S.Ed., Miami University; M.S. Marshall University
Harry Weinbrecht, Athletic Director/Physical Education — B.S. Ed., Ohio University, M.S. PE., Xavier University
Robert L. Wilson, English — B.S., Kent State University; M.Ed., Xavier University; Ph.D., Florida State University

MATH/SCIENCE

R. Thomas Frazee, Chemistry — B.S., Marshall University; M.S., Iowa State
Sibylle Herrmann, Biological Science — B.S., Ohio University; M.S., University of Michigan
Ming-Hui Huang, Physics/Physical Science — B.S., Tunghai University; M.S., Ph.D., Ohio University
Phyllis Kegley, Mathematics — B.S., Ohio State University; M.A. Marshall University
Scott Oliver, Biological Science — B.A., Ohio University; D.D.S., Ohio State University
John Shupert, Mathematics B.S., Ohio University; M.A., Louisiana State University; M.A., University of Illinois
David Todt, Coordinator, Parks & Recreation/Biological Science — B.S., M.A., Miami University

TECHNICAL FACULTY

ALLIED HEALTH TECHNOLOGIES

Associate Degree Nursing
Joanne Abel, Director — B.S. Nursing, Alderson-Broaddus College; M.A. Behavioral Disorders and Special Education, West Virginia College of Graduate Studies
Anna Gampp, R.N. — BSN, Ohio State University; M.Ed., Ohio University
Gayle Massey, R.N. — BSN, Catherine Spalding College
Jane Mayo, R.N. — BSN, University of Kentucky
Sharon Scott, R.N. — B.S., Bowling Green University; M.Ed., Ohio University
Becky Thiel, R.N. — BSN, Ohio State University
Carol Ward, R.N. — BSN, Western Reserve University; MSN, Case Western Reserve University

Dental Hygiene
James R. Kadel, Director — B.S., Ohio State University; M.A. Cleveland State University - Vocational Education; D.D.S., Ohio State University College of Dentistry
Sheryl Allison — Certificate of Graduate Dental Hygienist, B.S., A.O.P., Ohio State University; M.Ed., Ohio University
Elizabeth A. Gowdy — A.A.S. Dental Hygiene, Scioto Technical College; B.S. Community Health, Ohio University
Barbara S. Mullens — A.A.S. Dental Hygiene, Scioto Technical College; B.S. Community Health, Ohio University
Linda Riffe — A.A.S. Dental Hygiene, Scioto Technical College; B.S. Health Education, Ohio University; M.Ed. Higher Education, Ohio University

Emergency Medical Technician — Paramedic
Fran Griffith, Acting Director — A.A.S. Shawnee State Community College

Medical Laboratory Technology
Frederick W. Law, Director — B.S., MT(ASCP), University of Wisconsin-Madison; M.S, West Virginia University
Brenda F. Pinkerman — B.S., MT(ASCP), Marshall University; M.S. Marshall University

Practical Nursing
Betty Robinson, R.N., Director — B.S. University of Cincinnati
Brenda Horr, R.N. — A.D.N., Ohio University-Portsmouth; BSN, University
Mary Lynd, R.N. — B.S., Ohio University
Linda Wooddell, R.N. — B.S. University of Alabama, School of Nursing; M.Ed., Ohio University

Radiologic Technology
William Sykes, Director — B.S., Metropolitan State College
Jack Thomas, Clinical Coordinator — B.S., Ohio State University

Respiratory Therapy
Robert W. Thomas, Director — A.D. Respiratory Therapy, Community College of Denver; B.S., Metropolitan State College

BUSINESS TECHNOLOGIES

Accounting
Larry C. Essman, Chairperson — B.B.A., Ohio University; M.B.A., Ohio University; C.P.A.
Loretta Jenkins — A.A.S., Shawnee State Community College; B.B.A., Ohio University

Business Management
Robbie Burke — B.A., West Virginia Wesleyan College; M.S., Marshall University
Larry Estepp — B.B.A., Ohio University; M.A., Marshall University

Data Processing
Gerald Barry — B.A., Ohio University
Mike Gampp — M.B.E., Morehead State University

Secretarial Technology
Catherine Chaffin — M.B.E., Morehead State University
Joyce Kiser — B.A., M.B.E., Morehead State University

ENGINEERING AND INDUSTRIAL TECHNOLOGIES

Automotive Technology
Rankin E. Barnes — Shawnee State Community College (N.G.)
Thomas K. Charles — B.S., M.A., Western Michigan University

Civil Engineering
Charles Staggs — B.S., University of Kentucky

Diesel Technology
Oliver Carver — Non-degree

Electro-Mechanical Engineering
C. Ray Irwin, Chairperson — B.S.E.E., Ohio University

Plant Maintenance Engineering
Edmon Scott — B.S. Bowling Green University
William Penn — B.S. Mechanical Engineering Technology, Miami University

Plastics/Chemical Engineering
Lyle Smith — B.S., Ohio University
George Trampe — B.S., University of Illinois; Ph.D. Chemistry, Purdue University

Welding Technology
Robert Humble — Ohio University (N.G.)
Emile L. Jividen — Marshall University (N.G.)

PUBLIC SERVICE TECHNOLOGY

Social Services Technology
Paul Fowler — B.S.C. Business Administration, Ohio State University; LL.B., Ohio State University of Law; J.D., Ohio State University of Law
Jack James — B.A., Houghton College; M.S., Alfred University; M.Div., Colgate Rochester Divinity School

SHAWNEE STATE COMMUNITY COLLEGE

APPLICATION FOR ADMISSION

Complete this application and return it with the non-refundable $15 application fee to the Office of Admissions at Shawnee. Please have your high school transcript or general equivalence certificate (GED) also mailed to the same office. If you have attended another college or university, please have the registrar mail an official college transcript to the Admissions Office.

PERSONAL DATA:

NAME: Mr. Mrs. Miss _____
Last First Middle/Maiden/Appended Title

PERMANENT OR PARENT'S ADDRESS: _____
Street City State Zip Code County

LOCAL ADDRESS: _____
Street City State Zip Code County

DATE OF BIRTH: _____ HOME PHONE: _____ BUSINESS PHONE _____

HIGH SCHOOL ATTENDED: _____ DATE OF GRADUATION: _____

GED TEST: _____ SOCIAL SECURITY NUMBER: _____
Date Received

HIGH SCHOOL ADDRESS: _____
Street City State Zip Code County

SEX: Male ____ (1) Female____ (2) MARITAL STATUS: Married ____ (1) Single ____ (2) Divorced ____ (3) Widowed ____ (4)

Resident Status for Past 12 Months

___ 0 - Resident of Scioto County
___ 1 - Resident of Ohio, not Scioto County
___ 1 - Resident of Another State
___ 3 - Other National
___ 4 - Foreign

Race/Ethnic:

___ 1 - Black/Negro
___ 2 - American Indian or Alaskan
___ 3 - Asian or Pacific Islander
___ 4 - Hispanic
___ 5 - Caucasian/White
___ 6 - Non-Resident Alien

Housing/Living Arrangements:

___ 1 - Commuter (drive from home)
___ 4 - Other

VETERANS/FINANCIAL AID

Do You wish to apply for financial aid? Yes ____ No ____

Will you be making application for veteran's benefits? Yes ____ No ____

(OVER)

TRANSFER INFORMATION:

Previous College Attended: _____

Degree Earned: _____ Dates Attended: _____

Are you transferring college credit to this institution? Yes _____ No _____

Did you receive financial aid? Yes _____ No _____

Student intent in enrolling:

_____ A. Work toward an associate degree

_____ B. Gain qualifications and skills for employment (non-degree)

_____ C. Taking course for personal enrichment (non-degree)

_____ D. Complete course for transfer to another institution (non-degree)

How did you hear about Shawnee State? _____

_____

I AM MAKING APPLICATION FOR THE FOLLOWING MAJOR:

___ 01 Accounting
___ 02 Business
- ___ Business Management
- ___ Banking and Finance
- ___ Real Estate
- ___ Retail Marketing Mgt.

___ 03 Data Processing
___ 05 Secretarial
___ 06 Chemical/Plastics Engineering
___ 07 Civil Engineering
___ 08 Electro-Mechanical Engineering
___ 09 Plant Maintenance Engineering
___ 10 Automotive Technology
___ 11 Diesel Technology
___ 12 Welding Technology
___ 14 Social Services
___ 15 Recreation & Parks Management
___ 16 Dental Hygiene
___ 17 Associate Degree Nursing
___ 18 Medical Laboratory
___ 19 Radiology (X-ray) Technology
___ 20 Practical Nursing (one year)
___ 21 Respiratory Therapy (one year)
___ 22 Emergency Medical Technician Paramedic (one year)
___ 23 Teacher Education
___ 24 Humanities/Fine Arts
___ 25 Social Sciences
___ 26 Mathematics/Sciences
___ 27 Individualized Studies

Quarter and year you plan to enter: Fall _____ Winter _____ Spring _____ Summer _____

I certify that the statements included in this application are accurate and true to the best of my knowledge.

_____
Signature of Applicant

Please return the completed application and a non-refundable $15 check or money order made payable to Shawnee State Community College to:

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

Please Note: All applicants to the following Allied Health Programs must submit the test results of the American College Test (ACT): Dental Hygiene, Medical Laboratory Technology, Associate Degree Nursing, Radiologic Technology and Respiratory Therapy. It is suggested that applicants have the ACT results submitted to the college before May 1.

* This institution does not discriminate with regard to race, sex, color, religion, or national origin; the information is for State and Federal reports on equal opportunity for education or employment.

** This institution, in compliance with Section 504 of the 1973 Rehabilitation Act, does not discriminate against handicapped persons.

CALENDAR FOR 1983-84 ACADEMIC YEAR

Summer Quarter 1983

June 20	Late registration for Summer Quarter ($25 late fee if enrolled during Spring Quarter)
	First day of evening classes only
	Last day to pay fees (late payment fee of $20 after this date
June 21	First day of classes
June 28	Last day to add a 5-week session course or apply for pass/fail
	Last day for full refund on 5-week session course for withdrawal or change order
July 4	Independence Day observed - College closed
July 5	Last day to add full quarter course or apply for pass/fail
	Last day for full refund on full quarter course for withdrawal or change order
July 13	Last day to drop a 5-week session course or apply for non-credit
July 26	Last day of 5-week session
	Final exams for 5-week session
July 27	Grades due to ADP for 5-week session
August 1-15	Fall Quarter student advising
August 9	Last day to drop a full quarter course or apply for non-credit
August 15-18	Registration for Fall Quarter
August 30	Full Quarter ends
	Final exams for full quarter
August 31	Grades due to ADP by 12 noon

Fall Quarter 1983

August 1-15	Fall quarter advising
August 15-18	Registration for Fall Quarter
September 5	Labor Day — College closed
September 6, 7	Late registration ($25 late fee required if enrolled during Summer Quarter)
September 7	Last day to pay fees (late payment fee of $20 after this date)
September 8, 9	Faculty in-service
September 12	First day of classes
September 23	Last day to add a class or apply for pass/fail
	Last day for full refund for withdrawal or change order
September 26-30	50% refund of instructional fees upon withdrawal
October 3-7	25% refund of instructional fees upon withdrawal
October 10	Columbus Day — College open
Oct. 24 - Nov. 8	Winter Quarter student advising
October 31	Last day to drop a class or apply for non-credit
November 8, 9, 10	Winter Quarter registration
November 11	Veterans Day - College closed
November 24, 25	Thanksgiving Holiday - College closed (Columbus Day sub.)
November 30	Quarter ends
December 1, 3, 6, 7	Finals for evening and Saturday classes only
December 2, 5, 7	Finals for day classes
December 10	Grades due to ADP by 4 p.m.
December 26	Holiday — Christmas observed
January 2	Holiday — New Year's Day observed

Winter Quarter 1984

January 3	Later registration for Winter Quarter ($25 late fee if enrolled during Fall Quarter
	First day of evening classes only
	Last day to pay fees (late payment of $20 after this date)
January 4	First day of classes
January 16	Martin Luther King Day — College closed
January 17	Last day to add a class or apply for pass/fail
	Last day for full refund for withdrawal or change order
January 18-23	50% refund of instructional fees upon withdrawal
Jan. 24-27	25% refund of instructional fees upon withdrawal
Jan. 31-Feb. 17	Spring Quarter student advising
February 20	President's Day — College closed
February 21	Last day to apply for non-credit
February 21, 22, 23	Registration for Spring Quarter
March 15	Quarter ends
March 16, 17, 19, 20	Finals for evening and Saturday classes
March 16, 19, 20, 21	Finals for day classes
March 23	Grades due to ADP by 12 noon

Spring Quarter 1984

April 2	Late registration for Spring Quarter ($25 late fee if enrolled during Winter Quarter)
	First day of evening classes only
	Last day to pay fees (late payment fee of $20 after this date)
April 3	First day of classes
April 16	Last day to add a class or apply for pass/fail
	Last day for full refund for withdrawal or change order
April 17-20	50% refund of instructional fees upon withdrawal
April 23-26	25% refund of instructional fees upon withdrawal
April 23-May 7	Summer Quarter student advising
May 7-10	Summer Registation
May 21	Last day to drop a class or apply for non-credit
May 30	Memorial Day — College closed
June 6	Quarter ends
June 6-9, 11, 12	Finals for evening and Saturday classes
June 7, 8, 11, 12	Finals for day classes
June 13	Grades due to ADP by 12 noon
June 14	Graduation practice
June 17	Graduation

CALENDAR FOR 1984-85 ACADEMIC YEAR

Summer Quarter 1984

June 15	Last day to pay fees (late payment fee of $20 after this date
June 18	Late registration for Summer Quarter ($25 late fee if enrolled during Spring Quarter)
	First day of evening classes only
June 19	First day of classes
June 21	Last day for full refund on 5-week session course for withdrawal or change order
June 22-25	60% refund of instructional fees on 5-week session course upon withdrawal
June 26	Last day to add 5-week session course or apply for pass/fail
July 2	Last day for full refund on full quarter course for withdrawal or change order
July 3	Last day to add a full quarter course or apply for pass-fail
July 3-9	50% refund of instructional fees on full quarter course or upon withdrawal
July 4	Independence Day observed - College closed
July 11	Last day to drop a 5-week session or apply for non-credit
July 24	Last day of 5-week session
	Final exams for 5-week session
July 25	Grades due to ADP for 5-week session
July 30-Aug. 13	Fall Quarter student advising
August 7	Last day to drop a full quarter course or apply for non-credit
August 13-16	Registration for Fall Quarter
August 28	Full Quarter ends
	Final exams for full quarter
August 29	Grades due to ADP by 12 noon

Winter Quarter 1985

December 31	Last day to pay fees (late fee of $20 after this date)
January 2	Late registration for Winter Quarter ($25 late fee if enrolled during Fall Quarter
	First day of evening classes only
January 3	First day of classes
January 14	Martin Luther King Day — College closed
January 16	Last day to add a class or apply for pass/fail
	Last day for full refund for withdrawal or change order
January 17-22	50% refund of instructional fees upon withdrawal
Jan. 28-Feb. 17	Spring Quarter student advising
February 18	President's Day — College closed
February 21	Last day to apply for non-credit
February 19, 20, 21	Registration for Spring Quarter
March 14	Quarter ends
March 15, 16, 18, 19	Finals for evening and Saturday classes
March 15, 18, 19, 20	Finals for day classes
March 22	Grades due to ADP by 12 noon

Fall Quarter 1984

July 30-Aug. 13	Fall Quarter advising
August 13-16	Registration for Fall Quarter
August 31	Last day to pay fees (late fee of $20 after this date)
September 3	Labor Day — College closed
September 4, 5	Late registration ($25 late fee required if enrolled during Summer Quarter)
September 6, 7	Faculty in-service
September 10	First day of classes
September 21	Last day to add a class or apply for pass/fail
Spetember 25	Last day for full refund for withdrawal or change order
Sept. 25-Oct.1	50% refund of instructional fees upon withdrawal
October 8	Columbus Day — College open
Oct. 22 - Nov. 5	Winter Quarter student advising
October 29	Last day to drop a class or apply for non-credit
November 6, 7, 8	Winter Quarter registration
November 12	Veterans Day - College closed
November 22, 23	Thanksgiving Holiday - College closed (Columbus Day sub.)
November 28	Quarter ends
November 29, 30— December 1, 3, 4, 5	Finals for day classes
December 7	Grades due to ADP by 4 p.m.
December 25	Holiday — Christmas observed
January 1	Holiday — New Year's Day observed

Spring Quarter 1984

March 29	Last day to pay fees (late payment fee of $20 after this date)
April 1	Late registration for Spring Quarter ($25 late fee if enrolled during Winter Quarter)
	First day of evening classes only
April 2	First day of classes
April 15	Last day to add a class or apply for pass/fail
	Last day for full refund for withdrawal or change order
April 16-22	50% refund of instructional fees upon withdrawal
April 23-May 6	Summer Quarter student advising
May 7, 8	Summer Registation
May 20	Last day to drop a class or apply for non-credit
May 30	Memorial Day — College closed
June 5	Quarter ends
June 6, 7, 8, 10, 11	Finals for evening and Saturday classes
June 6, 7, 10, 11	Finals for day classes
June 12	Grades due to ADP by 12 noon
June 13	Graduation practice
June 16	Graduation

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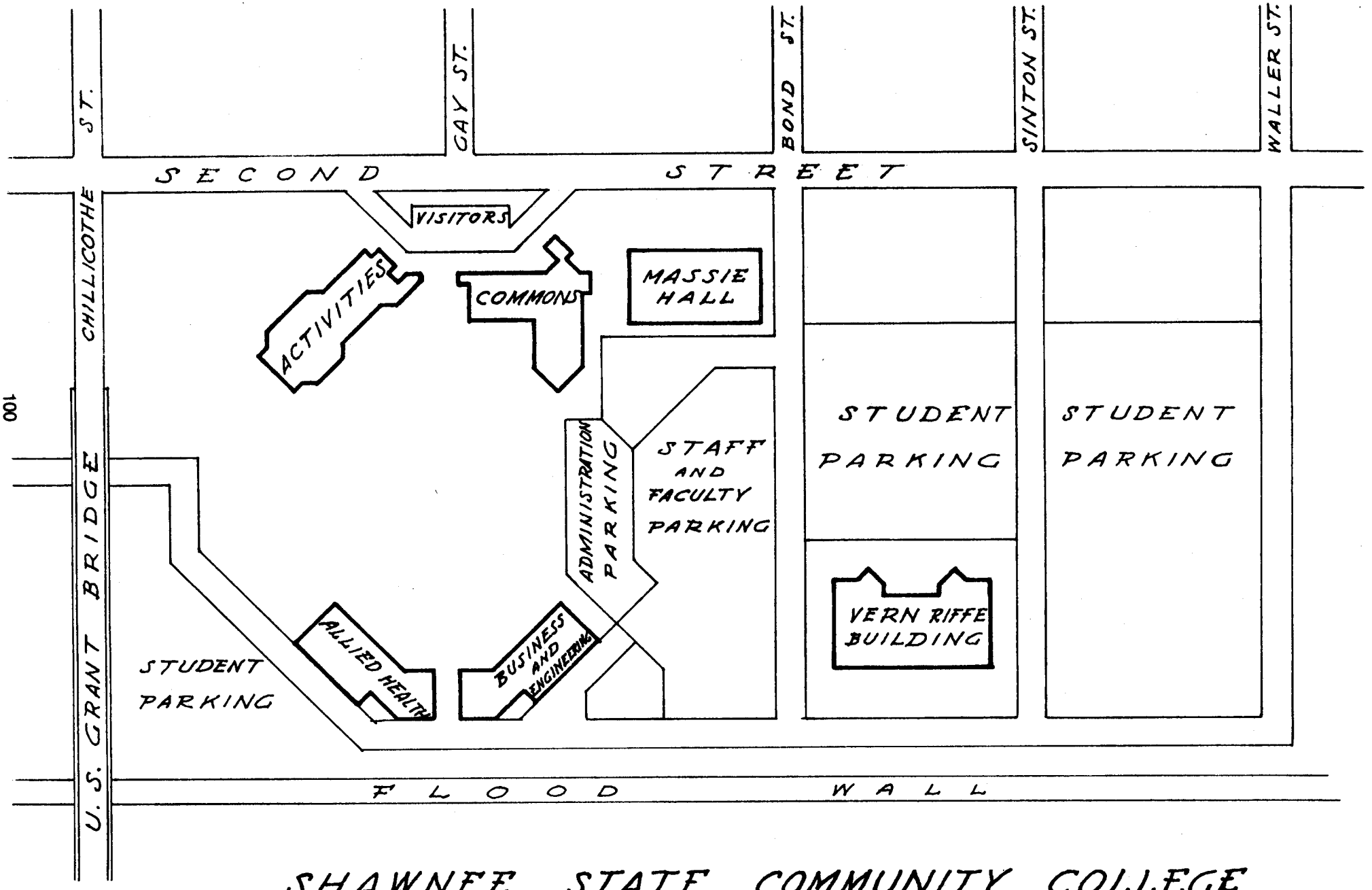
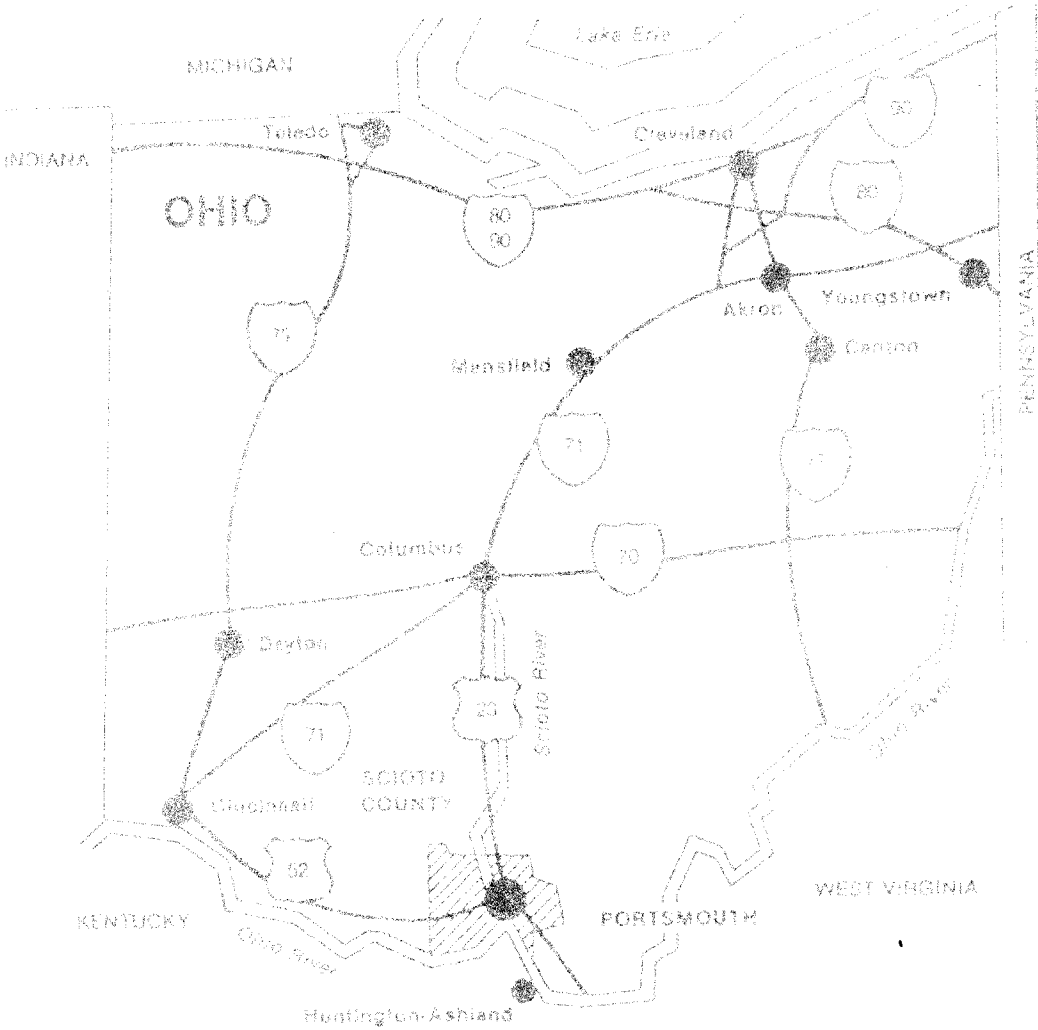


SHAWNEE STATE COMMUNITY COLLEGE

940 SECOND STREET

PORTSMOUTH, OHIO 45662

AREA MAPS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PENNSYLVANIA
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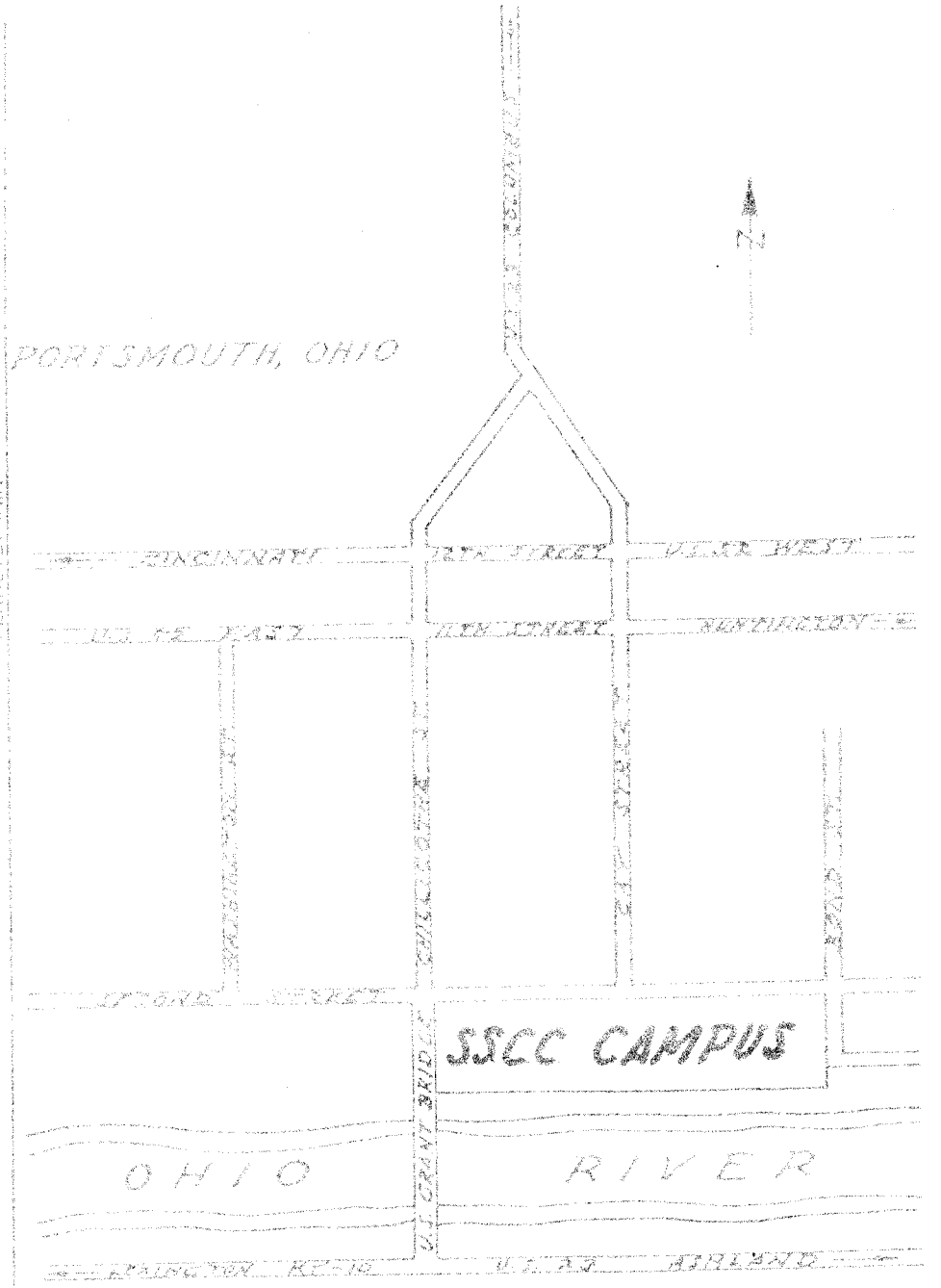
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