TOM CHARLES
SHAWNEE STATE UNIVERSITY
940 SECOND ST.
PORTSMOUTH, OHIO 45662

CHARLES

Shawnee State University
1988-89 Catalog

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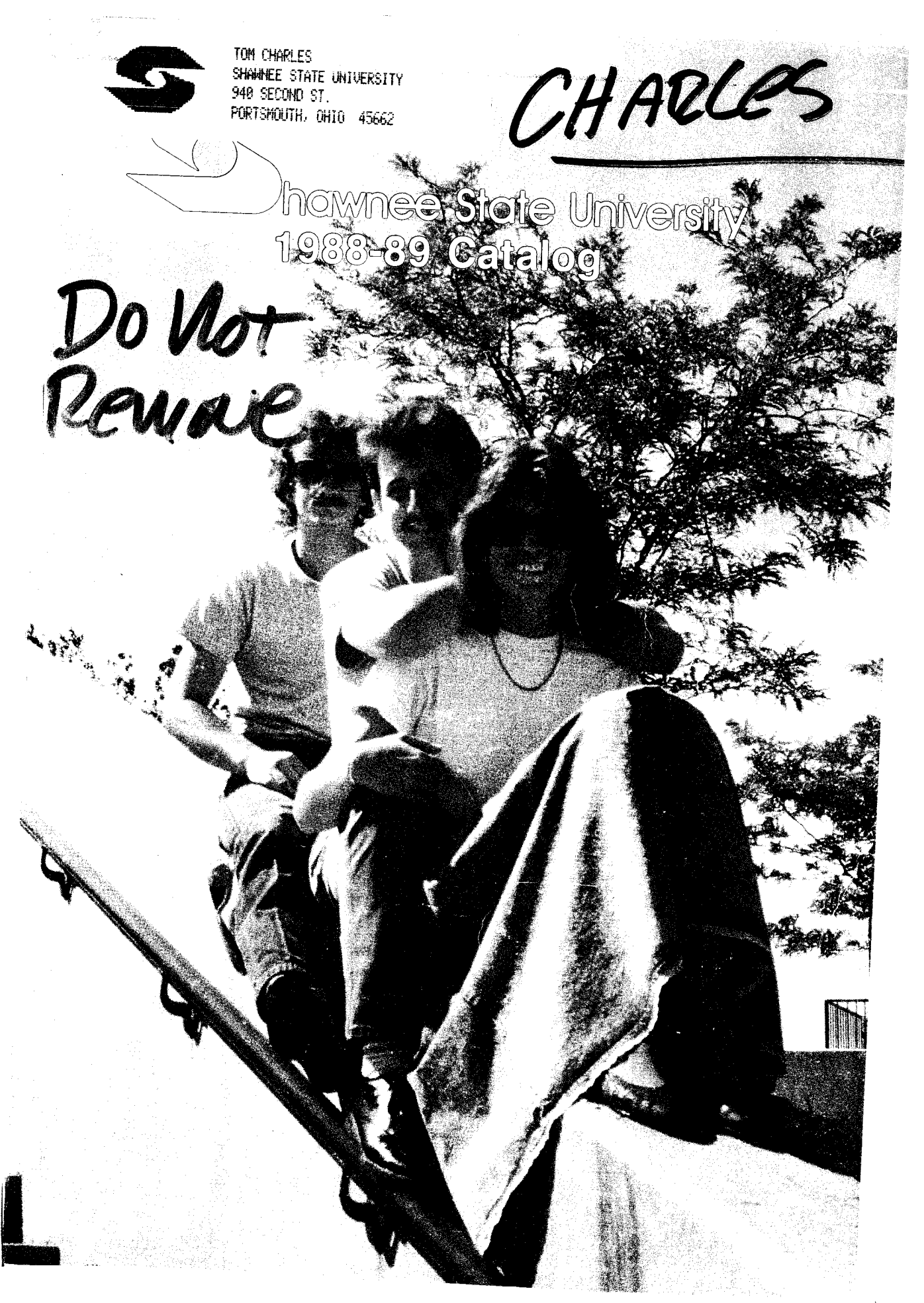
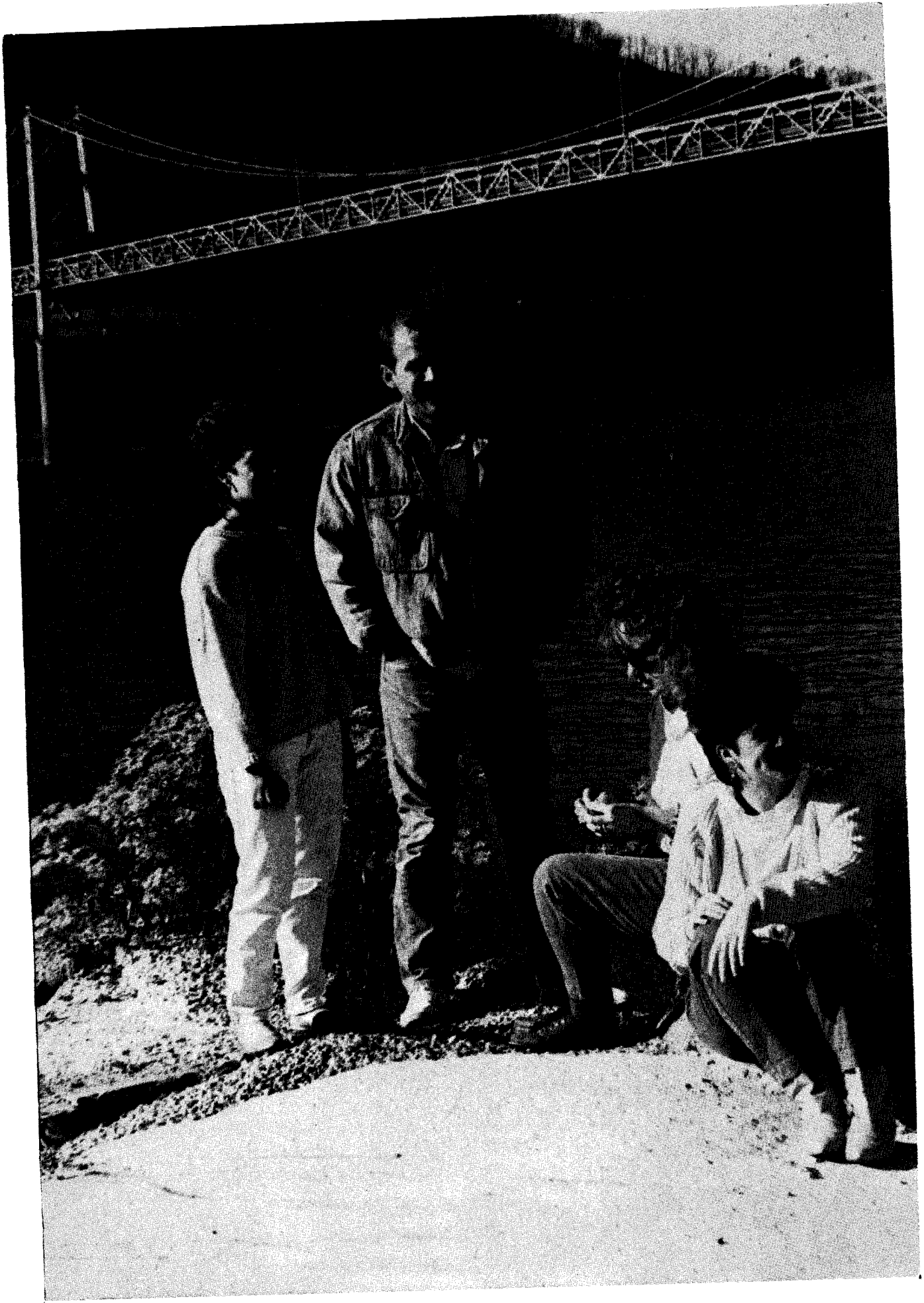


1988-89

Degrees Offered

Bachelor of Arts
Bachelor of Science
Bachelor of Science in Business Administration
Associate of Arts
Associate of Science
Associate of Applied Science in Engineering Technologies, Allied Health and Nursing, and Business Management
Associate of Individualized Studies
Elementary Education Certification
Computer Aided Drafting and Design Certification

Shawnee State University
940 Second Street
Portsmouth, Ohio 45662
614-354-3205
1-800-344-4SSU (in Ohio)



Shawnee State University Mission Statement

Shawnee State University prepares students for the changing needs of business, industry, education, and society through its diversified degree programs. Recognizing the importance of knowledge, values, and cultural enrichment, Shawnee State University is committed to teaching students to think critically, to act ethically, and to communicate effectively. The University fosters scholarly inquiry, integrative learning, and an interdisciplinary approach to knowledge. To enrich the lives of the community, the University provides opportunities for continuing personal and professional development, intellectual discovery, and appreciation for the creative and performing arts.

1988-89 CALENDAR

Summer Quarter 1988

April 25--May 13	Walk-in registration for Summer and Fall Quarter
June 8	Last day of Spring Quarter; last day to drop a course
June 9--June 15	Finals
June 16	Graduation practice
June 17	Grades due; last day to pay fees (after this date $20 late fee); Graduation
June 20	Late registration for Summer Quarter $25 if enrolled Spring Quarter; Last day for 100% refund for complete withdrawal from Summer Quarter for 10 week and 1st 5 week sessions; First day of day and evening classes
June 21--June 27	60% refund of instructional fees for complete withdrawal from 1st 5 week session
June 21--July 1	80% refund of instructional fees for complete withdrawal from 10 week session
June 23	Last day to add a 5 week course or apply for pass/fail (1st session)
June 27	Last day to add a class or apply for pass/fail--full quarter
July 4	University closed--Independence Day
July 8	Last day for walk-in registration for Fall Quarter
July 26	Last day to drop a class, last day of 1st 5 week session
July 27	Finals for 1st 5 week session; Last day for 100% refund for complete withdrawal from 2nd 5 week session
July 28--Aug. 3	60% refund of instructional fees for complete withdrawal from 2nd 5 week session
July 29	Grades due
Aug. 4	Last day to apply for non-credit
Aug. 10--Aug. 11	Early registration for Fall Quarter
Aug. 29--Sept. 2	Finals for full quarter and 2nd 5 week session
Sept. 1	Last day summer classes; last day to drop a class
Sept. 5	University closed--Labor Day
Sept. 6	Grades due to UIS by noon

Fall Quarter 1988

Sept. 13	Last day to pay fees
Sept. 14	Late registration
Sept. 15--Sept. 16	Faculty in service (tentative)
Sept. 19	First day of day and evening classes
Sept. 19--Sept 30	80% refund of instructional fees for complete withdrawal from Fall Quarter session
Sept. 23	Last day to add a class
Sept. 30	Last day to apply for pass/fail
Oct. 10	University Open--Columbus Day (Thanksgiving Holiday observed)
Oct. 31	Walk-in registration for Winter Quarter opens

Nov. 4	Last day to apply for non-credit
Nov. 11	University Closed--Veterans Day
Nov. 23	Walk-in registration for Winter Quarter closes
Nov. 24 & 25	University closed--Thanksgiving Day
Nov. 30	Early registration for Winter Quarter
Dec. 2	Quarter ends
Dec. 2--Dec. 9	Finals
Dec. 13	Grades due
Dec. 26 & 27	University closed--Christmas Holiday observed
Dec. 30	Last day to pay fees for Winter Quarter
Jan. 2	University Closed--New Years Day observed

Winter Quarter 1989

Oct. 31--Nov. 23	Walk-in registration for Winter Quarter
Dec. 30	Last day to pay fees for Winter Quarter
Jan. 2	University closed--New Years Day observed
Jan. 3	Late registration for Winter Quarter; Last day for 100% refund for complete withdrawal from Winter Quarter session; first day of day and evening classes
Jan. 4--Jan. 17	80% refund of instructional fee for complete withdrawal from Winter quarter; no refunds after January 17
Jan. 10	Last day to add a class
Jan. 16	University closed--Martin Luther King Day
Jan. 17	Last day to apply for pass/fail
Jan. 24	Walk-in registration for Spring Quarter opens
Feb. 10	Walk-in registration for Spring Quarter closes at noon
Feb. 20	University open--Presidents' Day (Christmas Holiday observed)
Feb. 22	Early registration for Spring Quarter
Feb. 23	Last day to apply for non-credit
Mar. 10	Last day of quarter; last day to drop a course
Mar. 11--Mar. 17	Finals
Mar. 20	Grades due at noon

Spring Quarter 1989

Jan. 24--Feb. 10	Walk-in registration for Spring Quarter
Mar. 27	Late registration; last day for 100% refund for complete withdrawal from Spring Quarter; 1st day of day and eveing classes
Mar. 28--Apr. 10	80% refund of instructional fees for complete withdrawal from Spring Quarter; no refunds after
April 10	Last day to add a class
Apr. 3	Last day to apply for pass/fail
Apr. 10	Walk-in registration opens for Summer and Fall Quarters
Apr. 24	Walk-in registration for Summer Quarter closes
May 12	Last day to apply for non-credit
May 16	Early registration for Summer Quarter
May 24	University closed--Memorial Day
May 30	

June 7	Spring Quarter ends
June 8--June 14	Finals
June 15	Graduation practice
June 16	Grades due by noon
	Graduation; last day to pay fees (late fee of $20 after this date)

1989-90 CALENDAR

The following schedule for the 1989-90 academic year is tentative and subject to change.

Summer Quarter 1989

April 24--May 12	Walk-in registration for Summer Quarter
June 16	Last day to pay fees ($20 late fee after this day); Graduation
June 19	Late registration for Summer Quarter ($25 if enrolled in Spring Quarter
	First day of day and evening classes
June 20--June 26	60% refund of instructional fees for complete withdrawal from first 5 week session
June 20--July 3	80% refund of instructional fees for complete withdrawal from 10 week session
June 22	Last day to add a 5 week course or apply for pass/fail (first session)
June 26	Last day to add a class or apply for pass/fail full quarter
	University closed--Independence Day
July 4	Last day of walk-in registration for Fall Quarter
July 14	Last day to drop a class; last day of first 5 week session
July 25	Finals for first 5 week session; last day for 100% refund of second 5 week session
July 26	First day of second 5 week session
July 27	Grades due
July 28	60% refund of instructional fees for complete withdrawal from second 5 week session
July 27--August 2	Last day to apply for non-credit
August 9	Early registration for Fall Quarter
August 15--August 16	Finals for full quarter and second 5 week session
August 28--September 1	Quarter ends; last day to drop a class
August 31	University closed--Labor Day
September 4	Grades due to UIS by noon
September 5	

Fall Quarter 1989

April 24--July 14	Walk in registration for Fall Quarter
September 12	Last day to pay fees
September 13	Late registration
September 14-15	Faculty in service (tentative)
September 15	Last day for 100% refund for complete withdrawal for Fall Quarter

September 18	First day of classes
September 18-29	80% refund of instructional fees for complete withdrawal from Fall Quarter
September 22	Last day to add a class
September 29	Last day to apply for pass/fail
October 9	University Open--Columbus Day (Thanksgiving Holiday observed)
October 30	Walk-in registration opens for Winter Quarter
November 3	Last day to apply for non-credit
November 10	University closed--Veterans' Day
November 22	Walk-in registration for Winter Quarter closes
November 23-24	University closed--Thanksgiving Holiday
November 29	Early registration for Winter Quarter
December 5	Quarter ends
December 6-12	Finals
December 14	Grades due to UIS

Winter Quarter 1990

October 30--November 22	Walk-in registration for Winter Quarter
December 25-26	University closed--Christmas Holiday
December 28	Last day to pay fees for Winter Quarter
January 1	University closed--New Years Day
January 2	Late registration for Winter Quarter; first day of day and evening classes; last day for 100% reufnd
January 3-16	for complete withdrawal from Winter Quarter
January 9	80% refudn of instructional fees for complete withdrawal from Winter Quarter
January 15	Last day to add a class
January 16	University closed--Martin Luther King Day
January 23	Last day to apply for pass/fail
February 9	Walk-in registration for Spring Quarter opens
February 19	Walk-in registration for Spring Quarter closes at noon
February 21	University open--Presidents' Day (Christmas Holiday observed)
February 22	Early registration for Spring Quarter
March 14	Last day to apply for non-credit
March 23	Quarter ends; last day to drop a class Grades due at UIS at noon

Spring Quarter 1990

January 23--February 9	Walk-in registration for Spring Quarter
March 28	Last day to pay fees
April 2	Late registration; first day of day and eveing classes; last day for 100% refund from complete withdrawal from Spring Quarter
April 2-16	80% refund of instructional fees for complete withdrawal from Spring Quarter
April 9	Last day to add a class
April 16	Last day to apply for pass/fail
April 30	Walk-in registration opens for Summer and Fall Quarters
May 11	Walk-in registration for Summer Quarter closes

May 15	Last day to apply for non-credit
May 23	Early registration for Summer classes
May 30	Univeristy closed--Memorial Day
June 6	Spring Quarter ends
June 7-13	Finals
June 14	Graduation practice; grades due by noon
July 15	Graduation; last day to pay fees. (Late fee of $20 after this date)

Shawnee State University Accreditations

Shawnee State University is accredited by the North Central Association of Colleges and Schools to offer baccalaureate and associate degrees and certificates.

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

U.S. Office of Education
American Association of Collegiate Registrars and Admissions Counselors
American Association of Junior Colleges
Ohio Board of Regents
Ohio State Department of Education--Division of Vocational Education
Ohio College Association
American Dental Association
American Medical Association--Committee on Allied Health Education & Accreditation
Ohio Board of Nursing
Bureau of Vocational Rehabilitation
Social Security Department
College Entrance Examination Board
Commission of Accreditation in Education, American Physical Therapy Association

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Shawnee State University, Past and Present

In January of 1975, Shawnee State General and Technical College, created from a merger of the Ohio University regional campus and the Scioto Technical College, was chartered by the Ohio Board of Regents to begin operation on July 1, 1975. The college, then operated on two campuses, moved to its present location in 1978. By an act of the Ohio Legislature (Senate Bill 229) on November 4, 1977, Shawnee State General and Technical College became Shawnee State Community College. Then in 1986, another act of the Legislature, put in effect on July 2, created Shawnee State University. Since then efforts to incorporate baccalaureate degree programs with the already successful associate degree programs have been ongoing.

Located on the Ohio River in downtown Portsmouth, the campus has been expanded from its original five story building to include eight others. The three newest are the Business Annex, James Rhodes Sports Center, and the Allied Health Addition. The Business Annex houses the business and academic faculty offices, the enlarged bookstore, the print shop, five teaching laboratories, and the expanded learning resource center. The Allied Health Addition houses SSU's Physical Therapist Assistant and Occupational Therapy Assistant programs. The Sports Center houses a junior olympic pool, three racquetball courts, saunas, a whirlpool, and two fully equipped fitness rooms.

A master plan created by Bohm NBBJ of Columbus, Ohio, with input from many people within and outside of the University, has been set in place. Its first component, a new library, has been designed, and groundbreaking is expected at the end of the year. Other proposed new buildings include a Fine and Performing Arts Center, a new and expanded student center, and an advanced high technology building.

While Shawnee State's academic curriculum has in the past attracted students who wished to complete the first two years of a baccalaureate degree, the majority enrolled in one of the many technical programs geared toward preparing participants for employment. Those programs continue to grow, as borne out by the addition in recent years of the new Occupational Therapy Assistant and Physical Therapist Assistant programs.

The continuing education department has grown steadily as well, to the point where more than 3,500 participants took part in 1987. Programs geared toward academically talented children have proven more popular year after year, and Shawnee's Dislocated Workers Program has become a model throughout the state and beyond.

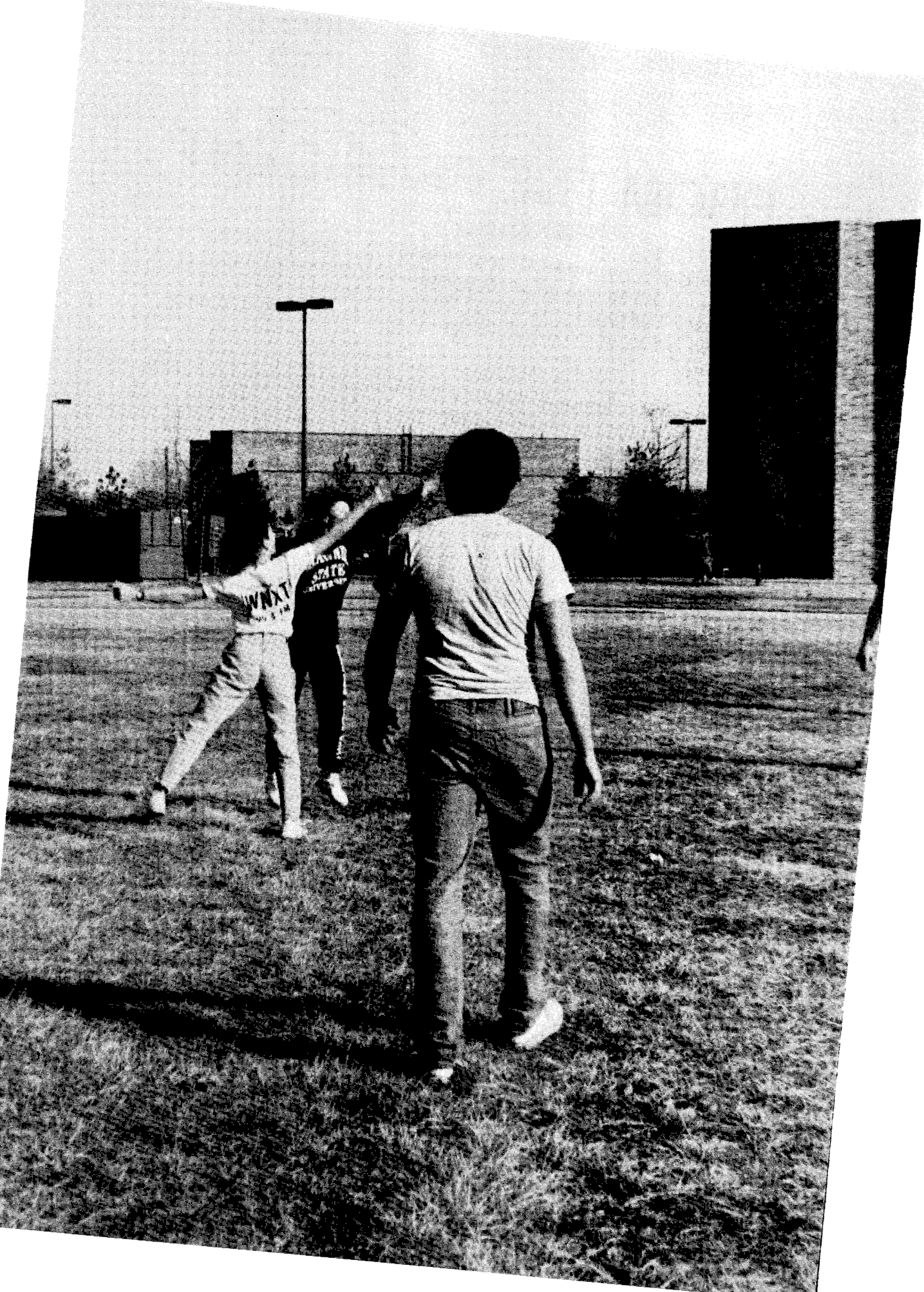
The University has also grown in importance and sphere of influence in other ways as well by offering high quality cultural and educational events to students and the community at large.

. . .FROM THE PRESIDENT

Whether you're a new student or a returning student, we welcome you. This is the year of great beginnings at Shawnee State University -- great beginnings for new programs and people, new buildings and designs, new ideas and directions.

Your time here can make a difference in your life. You'll meet new people, confront diverse ideas, see the world through different eyes -- the eyes of artists, historians, philosophers, sociologists, scientists, engineers, and technicians. You'll discover that living in the world of ideas is a complicated, frustrating, exciting experience. Whether listening to a lecture, sharing pizza with friends, or river-watching alone, you'll discover new beginnings for yourself.

The University is a place of new beginnings and opportunities. Make the most of them. We'd like to help.



Student Services at Shawnee State University

Admission
Athletics
Career Planning and Placement
Counseling and Assessment
Financial Aid and Veterans' Affairs
Minority, Handicapped and Special Students
Student Activities
Transfer Placement and Housing

Student Services Division

GENERAL ADMISSION REQUIREMENTS

Admission to degree programs at Shawnee State University is open to graduates of state chartered or regionally accredited high schools and to students who have earned high school equivalency through the General Education Development program (GED). However, admission to the university does not guarantee admission to specific programs of study. Students who intend to apply for admission to programs in the School of Allied Health and Nursing should refer to the appropriate section of this catalog for specific admission requirements.

Admission to students not seeking a degree at Shawnee State University is also open. The minimum requirements for admission of all students, both degree seeking and non-degree seeking, include:

1) a completed application for admission
2) a $15 non-refundable application fee

There are varying additional requirements for students in different categories, including recent high school graduates, transfer students, special non-degree students, transient students, international students, and eligible students who are still attending high school. Requirements for each are discussed in the following sections.

It is recommended that the high school background of the entering freshman include:

4 units English
3 units math (Algebra I and II, Geometry)
3 units social studies
3 units science
2 units foreign language
1 unit visual, performing arts (drama, music, art)

These courses are recommendations, not requirements. However, students who have deficiencies in English or math may be required to take developmental courses prior to attempting college level work.

Degree and Certificate Students

Beginning with the Fall Quarter, 1988, all students pursuing the four-year baccalaureate or two-year associate degrees, or the one-year certificate are required to have scores from the ACT or SAT forwarded to Shawnee State University in addition to the general admission requirements of application and application fee. Only applicants who are high school graduates for 3 or more years are exempt from providing ACT or SAT scores.*

Although Shawnee State University has an open admission policy and does not use the ACT or SAT for determining admission to the university, it does require results of these tests for use in advisement and placement. Students who have not yet taken the ACT or SAT may contact the Shawnee State University Admission Office for information about future ACT test dates. Applicants who have not taken the ACT or SAT will be accepted as "provisional students" but must take the ACT during the initial quarter of enrollment. Students who have not taken the ACT by the end of their first quarter

of attendance will not be permitted to register for subsequent quarters.

*The American College Test (ACT) is required for admission to some of the Allied Health Programs of all applicants. Specific information about required scores is stated in that section of the catalog.

Recent High School Graduates

Students who are recent high school graduates are required to submit a final, official transcript of academic work to Shawnee State University. Students may send a High School Transcript Request form (available in the Admission Office) or a written request to the high school requesting an offical transcript to be forwarded directly to the university. Students who have successfully completed the GED may use the special GED transcript request form (available in the Admission Office) to have official GED transcripts sent to the university, or they may request officialtranscripts directly from the State GED Office, Ohio Department of Education, 65 South Front Street, Room 812, Columbus, Ohio 43266-0308. Transcripts should be mailed to:

Office of Admission
Shawnee State University
Portsmouth, OH 45662

Transcripts must be received directly from the high school or State GED Office. Photocopies and hand-carried transcripts will not be accepted.

Advanced Placement

Shawnee State University recognizes that some courses completed in high schools or vocational schools may be equivalent to some entry-level coursework at Shawnee State. In order to avoid repetition of such courses and to encourage advanced study in the respective disciplines, Shawnee State has entered into "Articulation Agreements" with many high schools, vocational schools or school districts. This allows the award of advanced plancement (AP) credit for certain coursework completed at the high school where articulation agreements are in place. Such AP credit waives the student's course requirement. A more advanced class must be completed to replace the waived course.

Please contact the Registrar or your high school counselor for information concerning eligibility for AP credit.

Undeclared Major/Undecided Student

Students who intend to pursue a degree but are undecided as to a major may remain "undeclared" until they earn their first 45 quarter hours of credit. At the completion of 45 hours, undeclared students will be required to declare a major or be prohibited from registering for classes.

Transfer Students

Students who have attended other regionally-accredited colleges or universities may transfer to Shawnee State University provided they were in good academic standing at the institution attended most recently. In addition to the application for admission, application fee and official high school transcript, transfer students are required to provide an offical transcript from each college or university previously attended. High school, GED and college transcripts must be received directly from those institutions. Photocopies and hand-carried transcripts will not be accepted.

Transfer students may be admitted as "provisional students" until such time as the offical transcripts are received from all previous colleges.

Transfer students who have earned fewer than 90 quarter hours of credit, and have been out of high school fewer than 3 years are required to take the ACT. They may attend Shawnee State as "provisional students" but must take the ACT during the initial quarter of enrollment. Transfer students who must take the ACT and have not taken it by the end of their first quarter of attendance will not be permitted to register for subsequent quarters.

Credits applicable to the curriculum for which the student is applying which were earned at regionally accredited colleges or universities are accepted at the time of admission. Only courses completed with a grade of "C" or better are eligible for transfer. A maximum of one-half of the total credit hours required for the completion of a baccalaureate degree may be accepted as transfer credit. A minimum of thirty (30) credit hours must be earned at Shawnee State University to be considered for the award of an associate degree.

Students who have attended non-regionally accredited colleges or universities may transfer to Shawnee State University provided they meet all admission standards applicable to other transfer students. Credits applicable to the curriculum for which the student is applying which were earned at non-regionally accredited institutions will be considered for acceptance as transfer credit if:

a) the student has completed the associate degree at that institution, and

b) the student validates the award of credit by completing, with a grade of "C" or better, a planned program of courses totaling a minimum of 30 credit hours applicable to a four year curriculum as approved by the Registrar.

For students transferring credit from non-regionally accredited colleges or universities, a maximum of 90 quarter hours will be considered for transfer. A minimum of 45 quarter hours must be earned at Shawnee State University to be awarded any baccalaureate degree.

International Students

International students are required to file an application for admission, a $15 application fee (this fee may be deferred until registration) and official transcripts and certificates for all secondary and post-secondary studies. Transcripts and certificates which are not in English must be accompanied by official translations. International students must also provide proof of medical insurance prior to registration for classes.

For students whose native language is not English, the official scores on the TOEFL (Test of English as a Foreign Language) must be forwarded to the Admission Office directly from the Educational Testing Service, Box 592, Princeton, New Jersey 08540. A minimum score of 500 is required for admission to the university without restrictions.

The Shawnee State University budget for a self-supporting student is $5,000 for the 1988-89 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 and support ($10,000) and that these resources will be available to the applicant. Students pursuing a four-year baccalaureate program must present a statement indicating that $20,000 will be available to the

applicant for education and support. Immigration regulations prohibit international students from earning money while a student in this country, and there are no scholarships available for students from abroad.

International students accepted for admission will receive an acceptance letter and an I-20 form to be used to secure a student visa. Questions pertaining to a student visa should be directed to the local office of the Department of Immigration.

All international students must show a non-immigrant "F-1" visa to register for classes.

Non-Degree Students

Special Non-Degree Students
Students who are not interested in pursuing a degree but who wish to take courses are required to file an application for admission with the $15 application fee. Transcripts of high school and college work are not required, nor is ACT/SAT testing. However, if at a later time, the non-degree student decides to pursue a degree program, all admission requirements in effect at the time of initial enrollment must be met. These requirements include official transcripts from high school (and/or GED) and college work, and testing, recommendations, etc., if any of these are required for the major being declared.

Students enrolled in the GED program are special, non-degree students and, as such, are not required to take the ACT. If, after completion of the GED a student wishes to pursue a degree, the student will be subject to requirements for admission of a degree applicant.

Special, non-degree students may take courses which have no prerequisites or courses for which the student has the appropriate prerequisite. For courses assuming prior knowledge or a certain degree of proficiency, placement testing may be advised or required prior to registration.

Transient Students
Students who are enrolled at or seeking a degree at another college or university, but who wish to take course work temporarily at Shawnee State University, are considered transient students. As non-degree students (at Shawnee State) said students would be required only to file an application for admission with the $15 application fee.

Although transcripts of high school and college work are not required of transient students, such transcripts, especially those from the individual's home campus, are helpful in advising appropriate course work. Unofficial transcripts or grade cards will be required if these are needed to verify prerequisites for courses to be take at Shawnee State University.

Transient students are strongly advised to consult with the appropriate counselor or advisor at the home college or university as to the appropriate course work to be taken at Shawnee State and how that course work will transfer to the home campus of the transient student.

In the event a transient student decides to seek a degree at Shawnee State University, he or she will become a "transfer student" and will be bound to all requirements for a degree-seeking (transfer) student, including whatever requirements existed for the major to be pursued at Shawnee State in effect at the time of initial enrollment.

High School Students

Students who are still enrolled in high school may attend Shawnee State University on a part-time

basis. The application for admission and $15 application fee must be accompanied by a recommendation by the high school principal or counselor and written consent by parents or guardian. Letters of recommendation and permission must be submitted each quarter of enrollment.

Senior Citizens
Shawnee State University admits senior citizens (60 or older) for courses, on an audit, space available basis. Although formal application and registration are required, no fees are charged. Senior citizens who wish to take courses for credit are charged the usual tuition and fees.

Academic Policies and Information

Academic Integrity

Students at Shawnee State University 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. (See Student Handbook.)

Fees and Expenses

Registration fees are payable at the Bursar's 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 MasterCard. 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 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	NON-RESIDENT
Instructional fee Full Time Student (12-20 cr. hrs.)	$485.00	$610.00
Part Time Student (1-11 cr. hrs.)	40.00 per cr. hr.	50.00
General Fee Full Time Student	46.00	46.00
Part Time Student	4.00 per cr. hr.	4.00
Lab Fees	See Below	
Extra fee for each quarter hour in excess of 20 hrs.	40.00 per cr. hr.	50.00
Credit by Examination	30.00 per course	30.00
Course by Arrangement	40.00 per cr. hr.	40.00
Graduation Fee	30.00	30.00

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

Bad Check Policy

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

Therefore, any student who 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, or Library.

Student Insurance

Shawnee provides all full-time students with the benefit of a very good comprehensive health insurance policy. You may pick up a Student Insurance Program Brochure at the Business Office. Questions concerning student health insurance should be referred to 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 (14) day of the quarter will result in no refund.

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

TIME OF WITHDRAWAL*

Regular Term

Prior to first day of Classes	100% of Tuition
1 to 14 calendar days	80% of Instructional Fee
Over 14 calendar days	No refund

Summer & 5-week Session

Prior to first day of Classes	100% of Tuition
1 to 5 calendar days	60% of Instruction Fee
Over 5 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.

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

Late Registration and Late Payment Policy

A late registration fee of $25 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 of $20 will be assessed by the Business Office.

Miscellaneous Fees

Admission Fee
A $15 application fee, non-refundable, must accompany all admission applications.

Transcript Fee
The University will produce an official transcript upon written request from the student at a cost of $2 per copy. Unofficial transcripts, copies of schedules, etc., will cost $1.

Change Order Fee
A fee of $3 will be assessed for each change order processed.

Graduation Fee
A $30 graduation fee is required prior to the issuance of an official college diploma. Students are not billed for this fee. It is the student's responsibility to pay this fee prior to graduation. Student eligibility to graduate is determined by the Registrar after the student petitions for graduation.

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 Aid Office. The program includes four categories: scholarships, grants, loans, and employment.

Scholarships: The university 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 Aid Office.

Grants: The university 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 Aid 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.

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

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.

Veterans' 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 Veteran 's Affairs Office located in the Office of Financial Aid.

Grading/Awarding of Credit

Final grades are mailed at the end of each quarter by the Office of the Registrar. 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
AP	Adv. Placement	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 Credit Request Form with the Registrar.

Incomplete Grades

Students unable to attend class for extended periods of time may contact the faculty member responsible for the class to request 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 the Office of the Registrar. 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 more than one class per quarter on a pass/fail basis without approval of their academic advisor.

Course Credit by Examination

Students have the opportunity to fulfill requirements for selected courses offered at Shawnee State University by examination. Students interested in pursuing this educational option should first secure the advice of an advisor or program director 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 chairperson. The chairperson, after consultation with appropriate faculty, will then make a determination as to the feasibility of the student's request.

A fee of $30 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 they have been enrolled for 20 class days or more.

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

College Level Examination Program (CLEP)
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, humanities, and social sciences and history with the recommended scores of the Commission on Educational Credit and Credentials of the American Council on Education (ACE) will be given "KE" credit for the first sequence course in the above areas.

Many Subject Examinations may be used to earn"KE" credit for courses in subject areas of the Examinations. Students must achieve recommended ACE scores 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
Courses attempted prior to January 1, 1987, may be repeated with the transcript reflecting only the grade earned. All courses attempted after January 1, 1987, will be reflected on the transcript. The repeated course will be indicated by the symbol "R." In either situation the student must complete a course deletion form with the Office of the Registrar.

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 ratios 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 cumulative 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 cumulative grade average falls below the following:

CREDIT HOURS ATTEMPTED	CUMULATIVE GRADE AVERAGE
21-40	0.75 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 schedules during the first five class days of the quarter (five days of a 5-week summer session) by completing a change order in the Office of the Registrar. A fee of $3 will be assessed for each change order.

Withdrawing from a Class

Students may withdraw from a class through the last day of the quarter by completing a change order form at the Office of the Registrar. A $3 fee will be assessed for each change order. (See refund of fees.)

Withdrawing from College

Students withdrawing from college when classes are in session must complete the proper forms in the Office of the Registrar. Grades for scheduled classes will be recorded as withdrawal (WD).

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

See fee schedule for refund policy.

Non-Credit

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

Course Credit by Arrangement

Students have the opportunity to fulfill requirements for selected courses offered at Shawnee State University by arrangement. Students interested in pursuing this educational option should first secure the advice of their faculty advisor as to its appropriateness for the student's program of study. Since all courses are not available on a "by arrangement" basis, the student should then contact the appropriate Dean, Director, or Chairperson. This individual, 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.

Advanced Placement

Students who have graduated from vocational high school programs may be eligible to receive advanced placement credit for certain courses completed in high school. Contact the Registrar for further information.

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 educational 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 fewer than 12 credit hours are considered part-time students. The permission of the Registrar 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 point ratio in all course work *and* in his or her major field of study. Students having outstanding institutional bills or notes will not be issued a degree. All students are required to earn a minimum 30 hours of credit at Shawnee State in order to be eligible for graduation. Students must petition to graduate prior to the quarter they intend to graduate. Petitions are available in the Office of the Registrar.

Please Note: Students in Allied Health and Nursing majors must be in good standing in order to graduate.

Graduation with Honors

Students who achieve a cumulative grade point ratio of 3.5 or above prior to the quarter of graduation will be graduated with honors. Students that have achieved a cumulative grade point ratio of 3.7 or above prior to the quarter of graduation will be graduated with high honors.

Transcripts/Grade Reports

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 Registrar immediately.

Students may request transcripts from the Office of the Registrar. Transcript fees are $2.

Requests for official transcripts must be in writing and addressed to the Office of the Registrar.

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 faculty. Students are urged to request a copy of these guidelines from faculty advisors.

Student Academic Assessment Services

All first-time, entering, degree-seeking students must participate in the university's academic assessment and placement program prior to registering for English and mathematics courses. The academic assessment program directs students into the university curriculum to ensure that entering students register for courses that match their level of academic preparedness for college-level course work. Testing is mandatory and placement is determined by test scores and other factors. These factors will be determined by the appropriate division. They may include ACT scores, high school background information, etc. Upon being admitted to the university, students will receive information about how to schedule an appointment for academic assessment as part of the admissions packet.

Faculty Expectations and Responsibilities

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

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

In the event that a faculty member is not present at the normal time class begins, students are to remain in the classroom an additional 15 minutes. If the class meets once a week 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.

All faculty members post office hours during which they are available to discuss individual problems relating to students' academic progress. Students are encouraged to take full advantage of the advisers.

Athletics

Athletics at SSU consist of interscholastic, intramural, and individual sports activities.

Interscholastic Athletics

Shawnee State University's philosophy holds that there is more to learning than 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, courage, leadership, sacrifice and discipline.

Athletic policies at Shawnee State University conform to the National Association of Intercollegiate Athletics (NAIA) of which they are a member. Presently, Shawnee State University teams participate on an intercollegiate level in women's volleyball, women's basketball, women's softball, men's basketball, and men's golf. The university plans to expand with additional programs in the near future.

Intramural Athletics

An intramurals program is offered which provides a wide variety of athletic and recreational activities. Students participate in planning and supervising various aspects of the program.

Bookstore

The Shawnee State University Bookstore is owned and operated by

Shawnee State University for the convenience of students, faculty and staff. The main purpose of the bookstore is to provide textbooks and supplies necessary to complete required coursework. In addition, you will find items such as calculators, computer supplies, swimming and racquetball equipment, art and drafting supplies, gift items, and a wide selection of imprinted campus wear.

Career Planning and Placement Center

The primary purpose of career planning is to aid students in developing, evaluating, and effectively initiating and implementing career plans by engaging in self-assessment; obtaining occupational information; exploring the full range of employment opportunities and/or graduate study.

The primary purpose of the placement office is to assist students in the following:

Clarifying objectives and establishing goals;
Exploring the full range of life and work possibilities including employment and graduate preparation;
Preparing for the job search or further study;
Presenting oneself effectively as a candidate for employment or further study; and
Making the transition from education to the world of work.

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

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.

Counseling

The University provides a variety of counseling services through the different offices of Student Services. Admission, placement, financial aid, veterans, educational, and vocational counseling are available to students.

Counselors and Building Locations:

Mary Beaumont	Commons
Fred Chrisman	Massie
Dr. Paul D. Crabtree	Massie
Tom Davidson	Massie
Stephen Midkiff	Commons
Rosemary Poston	Commons
Eugene Wilson	Commons
Jim Arnzen	Commons
Tom Charles	Commons
Eric Hilton	Commons
Fannie Madden-Grider	Commons

Counseling sessions are confidential.

Office hours will be posted.

Counseling and Assessment Center

Counseling and assessment for personal, social, marriage and family concerns are provided for students experiencing problems that interfere with their academic progress or success. These services are provided on a confidential basis and are available by appointment. The Center is staffed with a Licensed Professional Clinical Counselor. The Center is located in Massie Hall, Room 218, or call 354-3205, Ext. 251/355-2251.

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 or her office.

Housing

Celeron Square offers the Shawnee State student quality living accommodations on campus. It features fully furnished 3-level townhomes for students. Each unit is designed to house 8 students comfortably. Every townhome has complete kitchen, laundry, dining and living areas. Call University Housing Company (614) 353-5405. In addition, a list of off-campus housing opportunities is available from the housing coordinator at 1-800-344-4SSU.

Identification Cards

I.D. cards are issued to Shawnee State University students. An I.D. card is a means of identification necessary for using the library and participation in student activities. Students must present evidence of registration certification at the time the I.D. card is received. Validation of the I.D. is required each quarter at registration. I.D. cards are available through the Office of the Registrar.

Minority, Handicapped, and Special Services

Adaptive equipment and services required by handicapped students are extended through the university's handicapped services.

Students of Shawnee State University who are subject to a physiological deficiency which restricts or limits their mobility may apply to the Director, Special Needs Program for a sentinel key card to the restricted parking lot.

Orientation

Student orientation is required of every degree-seeking student entering Shawnee State University. The orientation process includes assessment in mathematics, English, and reading with subsequent placement into the appropriate initial courses in mathematics and English. No students may register for a math or English class without having completed this assessment.

Additionally, the students will be advised as to their initial quarter classes, registered for those classes, tour the campus, and receive information concerning services available and academic rules and regulations.

Student orientation is scheduled each quarter well in advance, with additional dates to accomodate late registrants. For more information, please contact the Office of the Registrar.

Student Activities

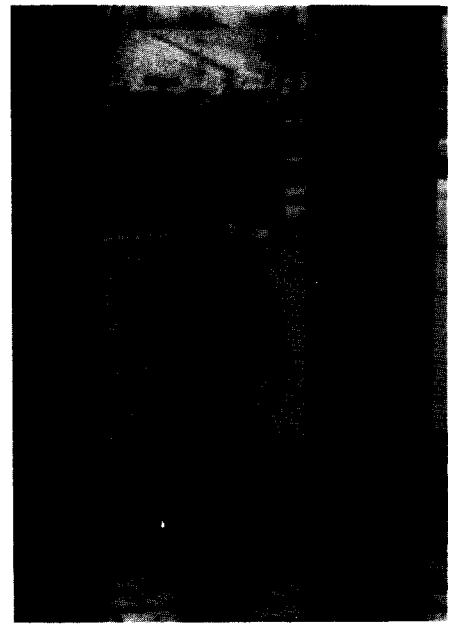
The Office of Student Activities is located in Room 214 Massie Hall. Dedicated to the principle that there are many valuable experiences which should be provided for college students outside the academic area, the Activities Office encourages students to explore ideas and to implement programs which aid in student maturation. These activities help train students to become more knowledgable citizens and thus better able to participate in our democratic society.

Student activities are a good way for students to meet new friends, develop new interests and skills, and learn valuable leadership experiences.

Student Activities include the Student Senate; Special Events

Committee; Cultural Affairs Committee; the student newspaper, *The Open Air*, which won a first place award in a national contest for university newspapers; and clubs and organizations.

A variety of clubs and organizations are available for student participation. A clubs and organizations handbook is available in the Student Activities Office. If you desire information about an existing club or would like to start a new club, check with the Student Activities Director.



Transfer Placement

Students interested in continuing their education at a four-year college or university other than Shawnee State should contact the Director of Transfer Placement at least two quarters before they plan to graduate. The Office of Transfer Placement is located in the Commons Building.

Notes

Academics at Shawnee State University

Division of Arts and Humanities
Division of Social Science
Division of Math/Science
CRADTAL
School of Allied Health and Nursing
School of Engineering Technologies
School of Business Administration

Programs of Study at Shawnee State

Division of Arts and Humanities

Bachelor of Arts

English/Humanities
- Interest Area:
- Elementary Education

Associate of Arts

Arts and Humanities
- Interest Area:
- Art
- Communication
- Comparative Arts
- English
- Journalism
- Music
- Theater

Division of Social Science

Bachelor of Arts

Social Science
- Interest Area:
- Elementary Education
- History
- Psychology
- Sociology
- Individ. Studies/Applied / Social Science

Associate of Arts

Social Science
- Interest Area:
- Government
- History
- Pre-Law
- Psychology
- Social Work
- Sociology

Division of Math/Science

Bachelor of Science

Natural Science
- Interest Area:
- Elementary Education
- Life Science
- Physical Science
- Mathematics
- Pre-Medical
- Environmental Biology
- Chemistry
- Applied Mathematics

Associate of Science

Math/Sciences
- Interest Area:
- Botany
- Chemistry
- Pre-Dentistry
- Pre-Engineering
- Pre-Forestry
- Mathematics
- Medical Technology
- Pre-Medicine
- Microbiology/Public Health
- Pre-Optometry
- Pre-Pharmacy
- Physical Therapy
- Physics
- Pre-Veterinary
- Zoology

CRADTAL (Center for Research and Development in Teaching and Learning)

Elementary Education Certification

English/Humanities Major
Natural Science Major
Social Science Major

Associate of Arts or Science

Secondary Education
Field of Interest

School of Allied Health and Nursing

Associate of Applied Science

Dental Hygiene
Associate Degree Nursing
Medical Laboratory Technology
Radiologic (X-ray) Technology
Respiratory Therapy
Physical Therapist Assistant
Occupational Therapy Assistant

School of Engineering Technologies

Bachelor of Science

Plastics Engineering Technology
Electrical/Computer Engineering Technology

Associate of Applied Science

Plastics Engineering Technology
Electromechanical Engineering Technology
Optional Major in Robotics
Instrumentation Technology
Optional Major in Robotics

Certificate Program

CADD (Computer Aided Draft. and Design)

School of Business Administration

Bachelor of Science in Business Administration

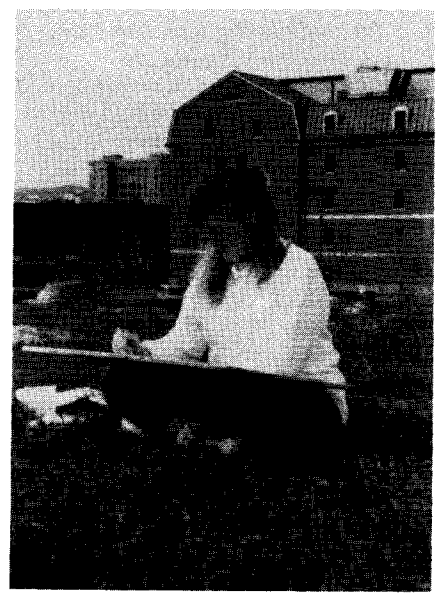
Business Administration

Associate of Applied Science

Accounting
Business Mangement
Management Emphasis
Majors:
Banking and Finance
Real Estate
Retail Mangement
Data Processing
Secretarial
General Secretarial Major
Executive Secretarial Major

Other

Associate of Individualized Studies



General Education Core

As a newly established four-year institution, Shawnee State University has the rare opportunity to create a general education program reflective of the best educational practices and responsive to the growing consensus on general education for the 21st century adult. Recent national reports on undergraduate education in America agree that the general education component of baccalaureate programs is in need of significant reform.

In addressing the options for general education, Shawnee State utilized the following assumptions as criteria for identifying an appropriate approach: knowledge is more interrelated than fragmented; introductions to specialized disciplines are rarely synoptic or reflective; and a community of scholars must be created in order to model the form and substance of an educated person. Discussions with both subject matter consultants and general education consultants resulted in the following approach to meet the core objectives of the national reports and SSU's institutional distinctiveness.

As an indication of its commitment to general education, Shawnee State University's Mission Statement explicitly addresses the function of the core curriculum: "Recognizing the importance of knowledge, values, and cultural enrichment, Shawnee State University is committed to teaching students to think critically, to act ethically, and to communicate effectively. The University will foster scholarly inquiry, integrative learning, and an interdisciplinary approach to knowledge. . ."

The general education program assumes that incoming students are prepared for college-level work; therefore, admission to the core courses will be predicated upon some combination of the following criteria: g.p.a. and college preparatory curriculum, ACT score, and competency/placement examinations. Each academic division will define the minimum knowledge/skills required by its core courses.

Throughout the general education core, students will be expected to be active participants rather than passive observers. Indeed, student involvement is the key which transforms classroom activities into learning experiences. Involvement in group work, class participation, writing, field experiences, and hands-on skill development enables students to acquire life-long learning and thinking skills.

Shawnee State University proposes that the following objectives will be addressed by courses in the general education core in a manner appropriate to the subject matter.

Communication Skills

Reading--students should leave the core with the ability to read on the college level and committed to reading regularly and over a broad spectrum of topics.

Entry level--to be tested, minimum reading level is necessary to begin core courses; otherwise remediation required.

Core course components--textbooks will be utilized and supplemented by readings from other sources.

Writing--students should leave the core with the ability to write clearly, concisely, and creatively in a variety of formats.

Entry level--to be tested, minimum writing level is necessary to begin core courses; otherwise remediation required.

Core course components--students will write across the curriculum (research papers, technical reports, journals, creative writing).

Speaking--students should leave the core with the ability to give a formal presentation to a group, participate actively in a group discussion, and debate a position rationally and persuasively.

Entry level--English language competence; testing and remediation may be in order for some students.

Core course components--in all courses students will be exposed to a variety of speaking situations.

Quantitative--students should leave the core with the ability to measure and calculate, to analyze data, and to evaluate the use of statistics.

Entry level--students should be competent through high school algebra. If, upon testing, students are found to lack the necessary math skills, remediation is required.

Core course components--where appropriate, students will utilize quantitative skills such as interpreting historical data, graphs and charts, collecting and analyzing scientific or social information, etc.

Computing--students should leave the core with the skills necessary to function successfully in our computerized society.

Entry level--keyboarding skills would be valuable.

Core course components--where appropriate, students will use computers as part of each course (word processing when writing is required, statistical packages or spreadsheets for dealing with numbers, file management programs for handling information).

Integrative Knowledge and Understandings

Global Parameter--students should leave the core understanding both the dynamic inter-connectedness of peoples and nations and the human longing for a sense of community.

Cultural Context--students should leave the core with knowledge of the cultural traditions of North America and the complex historical/cultural/sociological contexts which inform contemporary experience.

Ecological Perspective--students should leave the core understanding the interrelatedness of social, economic, environmental, technological, and political systems.

Ethical Foundation--students should leave the core understanding that all decisions, whether personal, corporate, financial, etc., have an ethical dimension as well as a value orientation.

Aesthetic Consciousness--students should leave the core with a greater appreciation of how the arts contribute to an enriched quality of life.

The general education goals of Shawnee State will be met by three series of integrated and/or interdisciplinary courses and a

math course generally taken early in most students' programs plus three other courses taken in the junior and senior years. Each series includes three courses of four credit hours each. One series focuses on communication and thinking; a second on physical, biological, and social science; and the third on culture and intellectual history within an historical frame.

In addition to being integrated within the broad disciplines, each series will reinforce elements of the other two series. Explicit relationships with other series will be noted in the areas of subject matter, methodology and identified competencies. The overarching goal of the General Education Core is to enable the student to acquire the basic abilities to function effectively in the multiple roles of contemporary life.

Communication and Thinking

Three courses will be taken in sequence during the freshman year. The major emphasis revolves around the nature of words and symbols and how to order them through logical and critical thought processes. English composition, public speaking, critical reading and listening skills are informed throughout the sequence by the development of critical thinking skills. In addition to the attention to informal logic and reasoning, students will be introduced to such quantitative "reasonings" as surveys, opinion polls, and other quantitative informative/persuasive tools. Students are expected to communicate their thoughts both in speaking and in writing with logic, clarity and insightfulness.

Our World

This three quarter series can be taken in either the freshman or sophomore year. (These courses do not need to be sequential although they will be discussed here as if they were.) As each particular domain of knowledge is explored, the disciplines represented will also respond to critical probes of the following questions: What is the nature of its inquiry? Why did it develop as it has? How is it functioning in society today? And where are its limitations? The first course is an integrated course in the physical sciences emphasizing the nature of science and scientific methods, the history of the physical sciences, and the impact of the physical sciences on human society. The second course is focused on the scientific method used in the biological sciences as well as the history of the biological sciences and their impact on human society. The third course introduces the student to the breadth and depth of the influence of the social sciences in contemporary life.

All of the courses in this series will address the development and consequences of the industrial and post-industrial ages; students will be presented the interrelationships of the sciences, technology, economics and public policy. Furthermore, each course will confront a range of ecological issues from global atmospheric pollution to individual personal self-abusiveness.

Civilization and Literature

These three courses are based on an historical framework and integrate the impact of ideas, influence of form, and notations of taste and beauty. One major goal is to help students understand how our own culture has been informed, and to some extent formed, by our antecedents in Western culture. An American culture component pays

special attention to the impact of political, social and economic ideas. The Civilization and Literature series also instills an appreciation of non-Western influences on our culture, of the multicultural nature of modern society, of the global interdependence which marks the modern world and non-Western cultures which we need to understand.

Each course in this series will utilize an historical frame, but the primary vehicle for the presentation of the material will be various literary works. Furthermore, each course will also include the role of the creative and performing arts in the cultures being studied.

Quantitative and Qualitative

In addition to the three series, a general education mathematics course has been developed. Building upon a specified level of mathematical competence, this course includes questions about the nature of mathematical knowledge and the impact of mathematics on modern life. Extending the unit on formal and informal logic included in the Communication series, this course focuses on skills in using and interpreting descriptive and inferential statistics.

The next two general education courses can be taken only during the junior and senior years: Ethics in Public and Private Life and Senior Seminar. The ethics course, required either late in the junior year or during the senior year, treats professional ethics as well as ethical questions in society and in private lives. The goal is to encourage students to reflect on ethical problems and to develop intellectual skills involved in making difficult value decisions.

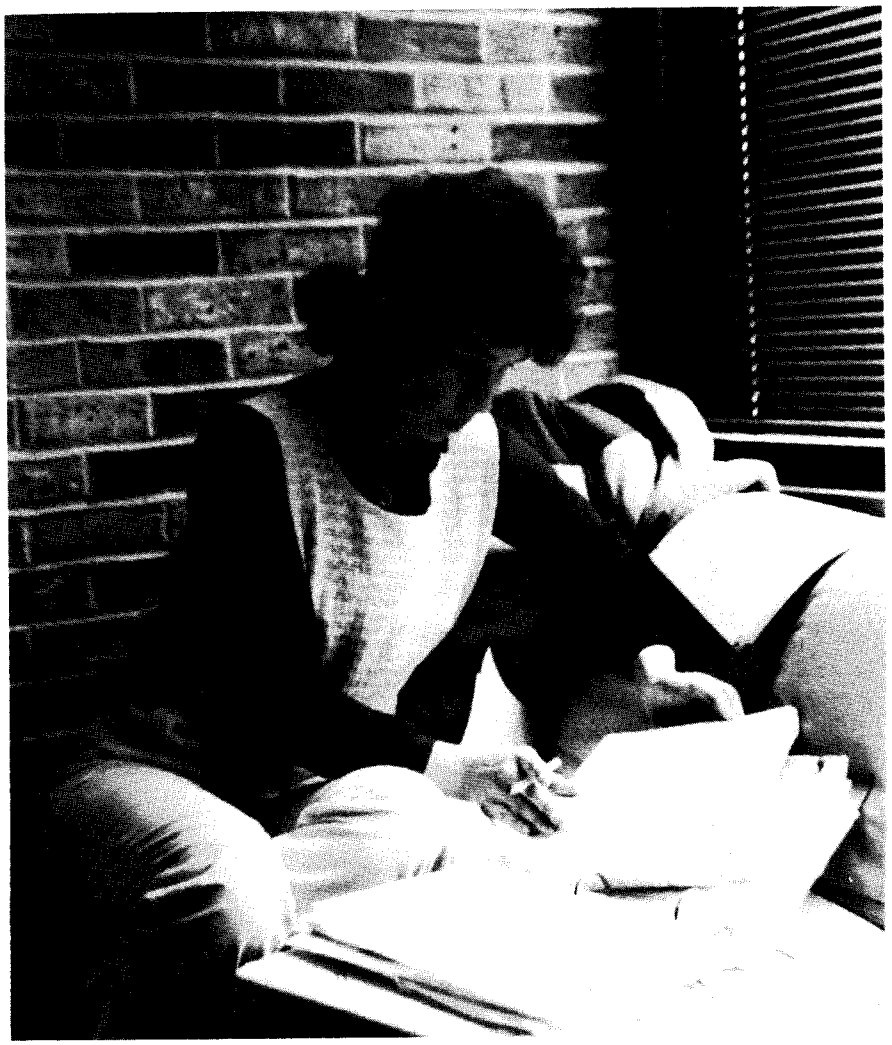
The Senior Seminar comes late in the students' university experience. A central part of the seminar will be a major paper in which students reflect on their college careers, place their own special fields in historical and intellectual perspective, and integrate the various concepts which have been studied. To put this in a slightly different way, the senior seminar provides students with the opportunity to again write, speak, think, analyze, synthesize and integrate--this time using the education they have acquired over four years. Furthermore, to enhance the possibility of a final interdisciplinary thrust, these seminars should contain a mixture of majors so that students will have to communicate with persons from other academic fields.

The final two hours, assuming that all the preceding courses were four hours credit, will not be a standard course. Students will be required to participate in community service projects during their junior or senior year. In addition to providing real service to the community, this requirement helps to make clear to students that higher education carries with it an obligation to share the fruits of that education with those of our fellow citizens who are less fortunate.

General Education Core

ENGL 111S	Discourse and Composition	4
ENGL 112S	Composition and Research	4
ENGL 115S	Composition and Literature	4

ENGL 225S or HIST 225S	Civilization and Literature I	4
ENGL 226S or HIST 226S	Civilization and Literature II	4
ENGL 227S or HIST 227S	Civilization and Literature III	4
PSCI 110S	Man and the Physical World	4
SOCSCI 110S	Foundations of Social Science	4
BIOL 110S	Man and the Biological World	4
MATH 110S	Mathematics in Our World	4
PHIL 320S	Ethics in Public and Private Life	4
CORE 485S	Community Services	2
CORE 490S	Senior Seminar	4
	TOTAL	50



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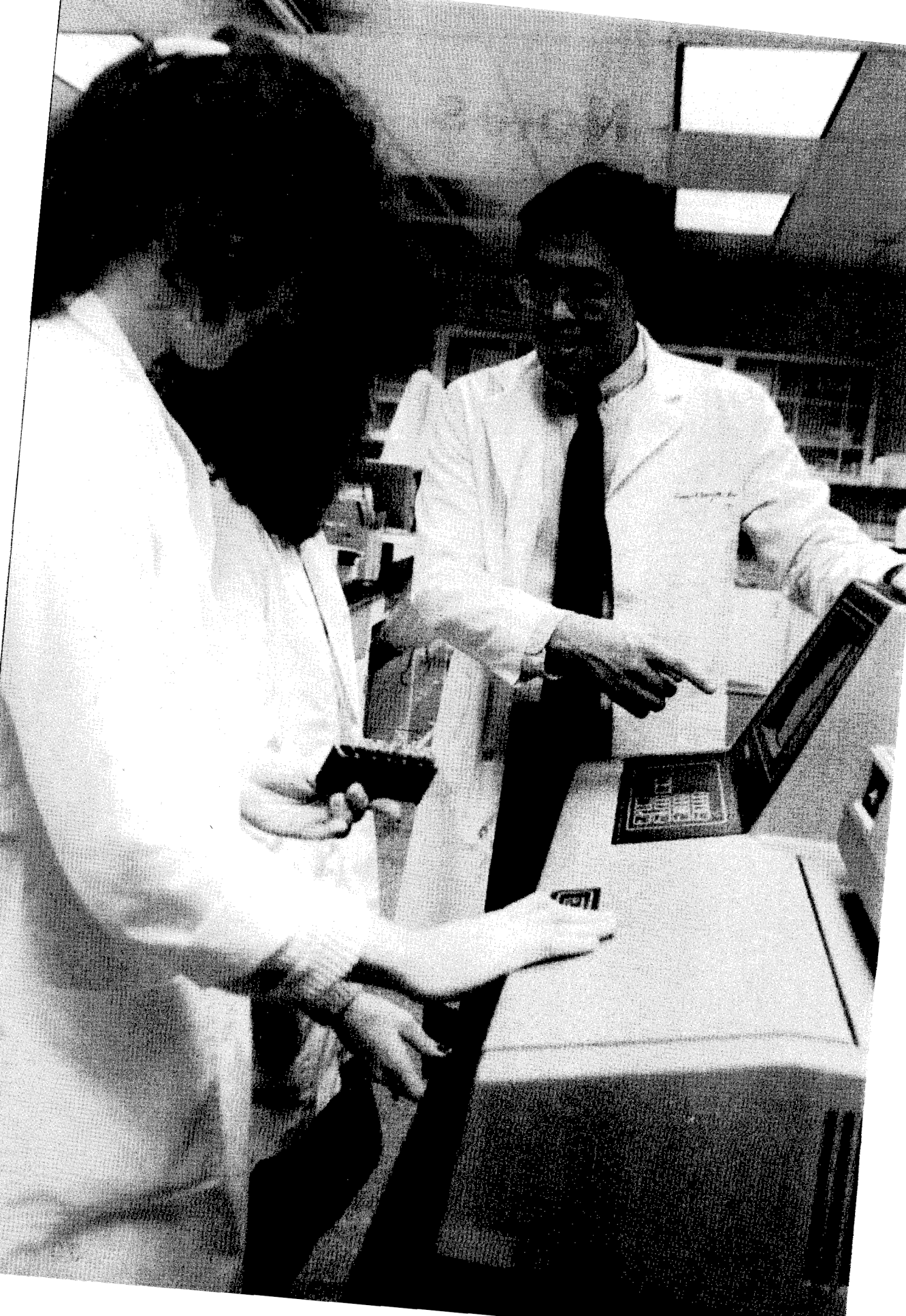


School of Allied Health and Nursing

Associate of Applied Science Degree

Associate Degree Nursing
Dental Hygiene
Medical Laboratory Technology
Occupational Therapy Assistant
Physical Therapist Assistant
Radiologic Technology
Respiratory Therapy

Certificate Program in
Practical Nursing

School of Allied Health and Nursing Mission Statement

The School of Allied Health and Nursing serves the tri-state area by educating and preparing competent and responsible health-care professionals so that they can deliver the best quality health care possible. The School of Allied Health and Nursing also fosters professionalism, personal growth and development, and self-actualization and is committed to continuing professional development for the health-care practitioners in the tri-state area.

School of Allied Health and Nursing

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 Allied Health Admissions.

Applicants to Allied Health programs who are currently enrolled at Shawnee State University 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 Allied Health 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 with a grade of C or above.

4. A natural science score of at least 16 on ACT (results forwarded to the Registrar).

5. 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.

An appropriate form will be provided.

Medical Laboratory

1. Complete the Autobiography Sheet and return to the Allied Health Admissions.

2. High school GPA of at least 2.5 on a 4.0 scale.

3. High school level algebra, biology, and chemistry with a grade of C or above (or successful completion of developmental courses in these subject areas at Shawnee State University).

4. A natural science score of at least 16 on the ACT (results forwarded to the Registrar).

5. Conference with program director when file is complete and criteria are met.

6. Applicants will be accepted on the condition that the required physical examination is satisfactory

Occupational Therapy Assistant

1. Complete the Autobiography Sheet and return to the Allied Health Admissions.

2. High school average of at least 2.5 on a 4.0 scale.

3. Complete algebra and biology on high school or college level with a grade of C or above.

4. Previous college grade point of at least 2.0 with a grade of "C" or better in required courses.

5. Two letters of recommendation (preferably employer, teacher, or guidance counselor).

6. Volunteer or work experience in a health care agency serving disabled or handicapped persons. (Statement from volunteer or work supervisor required if not used as a reference.)

7. Conference with program director when file is complete and criteria are met.

8. Applicants will be accepted on condition that the required physical examination is satisfactory. This is to be done by the applicant's physician after student has received official acceptance letter. Results should be forwarded to Director of Occupational Therapy Assistant Program prior to August 1.

Applications should be completed by April 1 to be accepted for the Fall class. Both OTAT and general education courses must be taken in sequence after admission to the program.

Physical Therapist Assistant

1. Complete the Autobiography Sheet and return it to the Allied Health Admissions.

2. High school average of at least 2.5 on a 4.0 scale.

3. Complete algebra and biology on the high school or college level with a grade of C or above. (Students not meeting these requirements may correct the deficiency by successfully completing courses in the Developmental Education Program at the university).

4. Previous college grade point average of at least 2.0 with a grade of "C" or better in required courses.

5. Two letters of recommendation, preferably employer, teacher, or guidance counselor.

6. Volunteer or work experience in a health care agency serving disabled or handicapped persons. Statement from volunteer or work supervisor required if not used in No. 5.

7. Conference with program director when file is complete and criteria are met.

8. 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. Results should be forwarded to the director of Physical Therapist Assistant Technology.

Applications should be completed by April 1 to be accepted for the Fall class. Both Physical Therapist Assistant and general education courses must be taken in sequence after admission to the program.

Radiologic Technology

1. Complete the Autobiography Sheet and return to the Allied Health 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 with a grade of C or above.

4. A natural science score of at least 16 on ACT (results forwarded to the Registrar).

5. Conference with program director when file is complete and criteria are 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 with the results forwarded to the Director of Radiologic Technology.

Respiratory Therapy

1. Complete the Autobiography Sheet and return it to the Allied Health Admissions.

2. Have a high school grade point average of at least 2.5 on a 4.0 scale.

3. Complete algebra, biology, and chemistry at the high school or college level with a "C" average or better in each class.

4. Submit ACT scores with a score of at least 16 or better in natural science (results forwarded to the Registrar).

5. Conference with program director when file is complete and criteria are met.

6. If accepted into the program, have completed, by a physician, the physical examination form and return it to the Office of the Program Director of the Respiratory Therapy Program by the deadline established by the program faculty.

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 Allied Health 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 Registrar).

5. Conference with the program director, if indicated, when file is complete and criteria are 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, on the form provided, with the results forwarded to the Director.

Practical Nursing

1. High school average 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 Allied Health Admissions.

4. Applications will be accepted on the condition that the required physical examination is satisfactory. This is to be done by the applicants' physician during the month preceding the starting date. An appropriate form will be provided.

5. Applicants should have a strong background in science and math.

6. Conference with program director when file is complete and criteria are met.

Please Note: It is very important to understand that fulfilling the criteria for admission into an Allied Health or Nursing Program does not automatically guarantee the applicant acceptance into the program. All applicants are ranked according to the published criteria for admission. Since the number of qualified applicants may exceed the number of vacancies, the program director and admissions committee reserve the right to select only those applicants that exhibit the most promise of academic and professional success.

Please Note: Some programs of the School of Allied Health and Nursing utilize hospital clinical sites for the completion of their requirements for graduation. These affiliating hospitals have the right to accept or reject a student, which could result in a student's being delayed in a program or unable to complete a program on time. This decision may be made just prior to the clinical internship.

Guidelines For Appealing a Dismissal From an Allied Health or Nursing Program

Each of the Allied Health and Nursing programs have set minimum academic and clinical performance standards which will permit a student to continue in that program. Failure to meet these minimum performance standards will result in dismissal from the Allied Health or Nursing program. Information concerning these performance standards is available in the Shawnee State University Catalog, the Student Handbook for individual Allied Health or Nursing programs or from the office of the program director.

If a student wishes to appeal his/her dismissal from an Allied Health or Nursing program, the following sequence of events shall be followed:

1. Within three (3) working days following a student's notification of dismissal from the Allied Health or Nursing program, the student must request in writing a meeting with the program director to appeal the dismissal decision. The student shall be notified of the results of this appeal within two (2) working days following this meeting.

If the student is not satisfied with the decision, he/she may request within three (3) working days a second appeal hearing as described below.

2. Upon the student's written request for the next level of appeal, the program director shall arrange a joint meeting with the student, the program director (or his/her designee), the Dean of Allied Health and Nursing (or his/her designee), and the Provost (or his/her designee). The student shall be notified of the results of this appeal hearing within two (2) working days following the meeting.

Criteria to be used in ruling on a student's dismissal appeal include the student's past academic achievement, the student's rationale for current grade status, and the prediction of future performance in the program.

Dismissal from an Allied Health or Nursing program is not the same as dismissal from the university. University dismissal policies are outlined in the Shawnee State University Catalog section on academics.

Associate Degree Nursing

Associate degree nurses graduating from Shawnee State University are qualified to take the Ohio Board of Nursing 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.

*Felony conviction requires permission from Ohio Board of Nursing before taking the examination.

Accreditation

The Associate Degree Nursing Program has full approval by the Ohio Board of Nursing.

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

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

Prerequisites for each quarter are identified under course descriptions.

For a student to remain in good academic standing in the associate degree nursing program a "C" grade (2.0) or better must be achieved in each course included in the curriculum. Failure to do so will result in academic dismissal from the program.

Students requesting readmission must do so in writing within one quarter of leaving the program in order to obtain the requirements and forms from the nursing department.

Associate Degree Nursing Curriculum

Course No.	Course	Class Hours	Lab Hours	Credit Hours
	FIRST QUARTER			
ADNR 101	Nursing I	5	9	8
BIOL 290	Principles of Anatomy	4	3	5
ENGL 111S	Discourse and Composition	4	0	4
		13	12	17
	SECOND QUARTER			
ADNR 102	Nursing II	5	9	8
BIOL 291	Principles of Physiology	5	0	5
PSYC 101	Introduction to Psychology	4	0	4
		14	9	17
	THIRD QUARTER			
ADNR 103	Nursing III	4	12	8
PSCI 105	Physical Science	4	3	8
PSYC 151	Human Growth & Development	4	0	4
		12	15	17

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

BIOL 235B	Microbiology I or Fourth Quarter	4	3	5
SOCI 101	Introduction to Sociology or Fifth Quarter	4	0	4
ENGL 112S	Composition & Research or Fifth Quarter	4	0	4
		12	3	13

FOURTH/FIFTH QUARTER

*ADNR 201	Nursing IV (5 weeks)	6	12	5
*ADNR 202	Nursing V (5 weeks)	6	12	5
ADNR 203	Nursing VI	2	0	2
BIOL 235	Microbiology I	4	3	5
		12	15	17

FOURTH/FIFTH QUARTER

ADNR 204	Nursing VII	6	12	10
SOCI 101	Introduction to Sociology	4	0	4
ENGL 112S	Composition & Research	4	0	4
		14	12	18

SIXTH QUARTER

ADNR 205	Nursing VIII	4	15	9
ADNR 211	Nursing IX	3	0	3
	**Approved Elective	4	0	4
		11	15	16

*Half-quarter courses

**Elective approved by nursing advisor

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--scaling and polishing of the patient's teeth to remove soft and hard deposits. They also perform other procedures: dental charting and oral examinations, exposing and processing dental radiographs, fluoride treatments, and preliminary impressions for study models. The

hygienist also places great 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.

Job Opportunities

Dental hygienists practice in the following areas:

***Dentists in Private Practice**

***School Systems**--Primarily concerned with the proper care of children's teeth. Inspect students' teeth and report findings to a supervising dentist. May also instruct students in proper care of teeth, give demonstrations for 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.

***Teaching and Research**--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.

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.

Academic Requirements for Dental Hygiene

In order to remain in good academic standing in the dental hygiene program a student must:

1. Maintain a grade point average of 2.000 for all coursework needed to meet the requirements for an Associate of Applied Science Degree in Dental Hygiene. This applies to all required courses taken before as well as after admission into the dental hygiene program.

2. Maintain a grade point average of 2.000 in all dental hygiene courses.

3. Not receive a failing grade in any of the required courses for the dental hygiene program.

If the student fails to achieve any *ONE OF THE THREE* requirements for good academic standing, he/she will be dismissed from the dental hygiene program with the option to reapply for admission the following year. A student may appeal a dismissal from the dental hygiene program by following the guidelines for appeal as detailed in this catalog.

Dental Hygiene Curriculum

Course No.	Course	Lec Hours	Lab Hours	Credit Hours
	FIRST QUARTER			
CHEM 121	Intro. to General Chemistry	3	3	4
DTHY 121	Clinical Dental Hygiene I	2	6	4
BIOL 151	Principles of Biology	3	4	5
DTHY 111	Oral Anatomy I	3	0	3
		11	13	16
	SECOND QUARTER			
DTHY 122	Clinical Dental Hygiene II	2	6	4
BIOL 162	Human Anatomy/Physiology	4	3	5
DTHY 101A	Radiology	2	0	2
DTHY 112	Oral Anatomy II	2	0	2
DTHY 102	General & Oral Histology/Embryo	3	0	3
		13	9	16
	THIRD QUARTER			
DTHY 202	Periodontics	3	0	3
DTHY 101B	Radiology II	1	3	2
DTHY 123	Clinical Dental Hygiene III	1	8	4
DTHY 201	General & Oral Pathology	3	0	3
HPER 103	Intro. Human Nutrition	2	0	2
		10	11	14
	FOURTH QUARTER (Summer)			
DTHY 124	Clinical D.H. IV/Office Emerg.	2	9	5
DTHY 205	Dental Health Education	3	0	3
BIOL 235	Microbiology	4	3	5
ENGL 111S	Discourse and Composition	4	0	4
		13	12	17
	FIFTH QUARTER			
DTHY 125	Clinical D.H. V/Preventative Dentistry	1	12	5
DTHY 103A	Dental Materials	3	0	3
SOCI 101	Introduction to Sociology	4	0	4
ENGL 112S	Composition and Research	4	0	4
		12	12	16

SIXTH QUARTER

DTHY 204	Pharmacology/Anesthesiology	3	0	3
DTHY 206	Public Health	3	0	3
DTHY 126	Clinical D.H. VI/Jurisprudence and Career Management	1	12	5
DTHY 103B	Dental Materials Lab	0	3	1
SPCH 103	Public Speaking & Comm.	3	0	3
		10	15	15

SEVENTH QUARTER

DTHY 127	Clinical D.H. VII/Special Needs	1	12	5
PSYC 101	Introduction to Psychology	4	0	4
ELECTIVE *	Communication/Leadership	3	0	3
		8	12	12

*Communication/Leadership Elective
(at least 3 credit hours)

--Any English course 115 or higher
--Any Journalism course
--Any Foreign Language course
--Any Speech course above 103
--Any Psychology course above 101
--Any Sociology course above 101
--BMNT 202 Personnel Management
--BMNT 242 Business Communication
--EDPT 101 Intro to Data Processing
--Special Topics in Dental Hygiene

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 Medical Laboratory Technician works under the supervision of a pathologist or technologist and is qualified to perform a wide variety of analytical tests on patient specimens in the areas of hematology, chemistry, microbiology, immunology, 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 seven academic quarters of general education, basic sciences, and clinical laboratory sciences including an 18-week 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 Pathologists' Board of Registry Examination and/or the National Certification Agency for Medical Laboratory Personnel Examination as a Certified Medical/Clinical Laboratory Technician.

Accreditation

The MLT-AD program is 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 hospital laboratories, commercial laboratories, public health facilities, the armed forces, physicians' offices and clinics, pharmaceutical and industrial firms, research and educational institutions, as well as technical and sales representatives for biomedical supplies and instruments.

Scholarships

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

++MLTC 226 Technical Electives:
Sp. Topics in Laboratory Instrumentation
Sp. Topics in Laboratory Management
Sp. Topics in Quality Control & Computer
Sp. Topics in Hematology
Sp. Topics in Clinical Chemistry
Sp. Topics in Immunology
Sp. Topics in Immunohematology
Sp. Topics in Microbiology
Sp. Topics in Urinalysis
Sp. Topics in Histology

Recommended electives for students who want to take additional hours:

EDPT 101 Intro. to Data Processing
EDPT 103 BASIC Language I
BIOL 340 General Genetics
CHEM 223 Quantitative Analysis
ENGL 115S Composition and Literature
ENGL 121 Technical Writing
MATH 131 College Algebra II
MATH 150 Elementary Statis

*Students may select MATH 130 or 201 depending on the results of their placement tests.

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

***Students may select the BIOL 290 and BIOL 291 series with the approval of the program director.

Please 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.

Eligibility for clinical practicum, as well as to continue in the Medical Laboratory Technology program,

requires that students must maintain a 2.000 accumulative GPA and a minimum of "C" in all MLTC courses. Detailed academic requirements are outlined in the MLT student handbook.

Medical Laboratory Curriculum

Course No.	Course	Class Hours	Lab Hours	Credit Hours
	FIRST QUARTER			
ENGL 111S	Discourse and Composition	4	0	4
*MATH	Math	4	0	4
**CHEM 121	Introduction General Chemistry I	3	3	4
***BIOL 151	Principles of Biology	4	2	5
MLTC 111	Medical Technology Orientation	2	0	1
		17	5	18
	SECOND QUARTER			
ENGL 112S	Composition and Research	4	0	4
CHEM 122	Introduction to General Chemistry II	3	3	4
***BIOL 162	Human Anatomy and Physiology	4	2	5
MLTC 112	Basic Laboratory Skills	2	6	4
		13	11	17
	THIRD QUARTER			
CHEM 123	Introduction to Organic Chemistry	3	3	4
MLTC 201	Urinalysis	2	3	3
MLTC 212	Clinical Chemistry I	2	6	4
MLTC 209	Hematology I	2	6	4
MLTC 210	Hemostasis	1	2	1
		10	20	16
	FOURTH QUARTER			
BIOL 235	Microbioloy	4	3	5
MLTC 202	Immunoserology	2	3	3
MTLC 211	Hematology II	2	3	3
PSYC/SOCI	Electives	4	0	4
		12	9	15

	FIFTH QUARTER			
MLTC 207	Clinical Microbiology	3	6	5
MLTC 213	Clinical Chemistry II	2	6	4
MLTC 203	Blood Banking	2	6	4
MLTC 204	Parasitology	0	3	1
SPCH 103	Public Speaking and Communication	3	0	3
		10	21	17
	SIXTH QUARTER			
MLTC 215	Stat Laboratory Simulation (1st 5 weeks)	0	9	3
MLTC 216	Medical Technology Seminar (1st 5 weeks)	1	0	1
MLTC 217	Case Studies (1st 5 weeks)	1	0	1
MLTC 220	Clinical Practicum I (2nd 5 weeks)	0	40	4
PSYC/SOCI	Electives	4	0	4
		6	49	13
	SEVENTH QUARTER			
MLTC 221	Clinical Practicum II	0	40	8
MLTC 225	Special Problems in Med. Lab.	2	0	2
MLTC 226	Technical Electives++	2	0	2
		4	40	12

Occupational Therapy Assistant

Occupational therapy is a vital health care service, that uses "occupation," meaning purposeful activity, as the basis for treatment of people with a wide variety of physical, developmental and emotional disabilities.

Occupational therapists and occupational therapy assistants help disabled people of all ages acquire or regain the skills they need to live independent, productive and satisfying lives. They work in hospitals, rehabilitation centers, nursing homes, public and private schools and home health agencies.

Occupational therapy assistants work under the guidance of occupational therapists. They may choose or construct equipment that helps people to function more independently; they may carry out treatment activities for individuals or groups of patients; and they work closely with patients' families when preparing to return home.

To become an occupational therapy assistant, you must complete an educational program. The majority of these are two-year associate degree programs such as the one at Shawnee State University. The program includes basic academic subjects, human growth and development, understanding the functioning of the human body and occupational therapy principles and techniques. The OTA program requires at least two six-week rotations of supervised practical experience in a variety of health care settings.

After successfully completing the educational program, the graduate will be eligible to take the national certification examination for the Occupational Therapy Assistant. Many states, including Ohio, Kentucky, and West Virginia, also require licensing by their state to practice Occupational Therapy.

Accreditation

The program is approved by the Accreditation Committee of the American Occupational Therapy Association.

Please Note:
[1]BIOL 290 Anatomy and BIOL 291 Physiology--may be substituted for BIOL 162 and the Math/Science elective if approval is obtained from the Director of Occupational Therapy Assistant program.

[2]Therapeutic Media I may be taken during either Spring or Summer quarter.

[3]Therapeutic Media II may be taken during either Fall or Winter quarter.

[4]Students must have current First Aid and CPR Certificates prior to starting Clinical Application (OTAT 220 & 221) Spring Quarter. This may be obtained either through EMTA 101 or at another agency.

[5]Students are required to have successfully completed all OTAT and other courses in the curriculum (as indicated by a minimum 2.00 GPA) prior to participating in OTAT 220 and 221. OTAT 220 and 221 must be completed within 12 months following completion of other OTA courses.

Academic Requirements of OTA Program

For a student to remain enrolled in the Occupational Therapy Assistant Program, he/she must meet the following criteria:

1. Not receive below a C- in any course with OTAT prefix.

2. Maintain a 2.00 GPA in all courses with OTAT prefix.

3. Obtain no less than an overall GPA of 2.00 prior to the third quarter (spring quarter) of the first year.

4. Maintain at least a 2.00 GPA during each remaining quarter.

5. Successfully complete (with a D- or higher) Biology 151 and 162 by the end of the third quarter (spring quarter) of the first year.

If any one of these criteria is not met, the student will be dismissed from the OTA program. Conditions for readmission to the OTA program will be detailed by the program director at the time of dismissal.

Clinical Requirements of OTA Program

Clinical placements for the OTA program in the Portsmouth area are limited. OTAT 108, 204, and 208 (Fieldwork I) are clinical courses requiring 7 hours, one day per week at the assigned facility. These placements may be up to 70 miles away from SSU. Students are responsible for their own transportation to and from these facilities.

OTAT 220 and 221 (Fieldwork II) consist of two rotations of 6 to 8 weeks each. Students are required to be at that facility during normal working hours (usually 40 hours per week). The OTA program will assign each student two placements. Students will be responsible for all expenses incurred to complete the Fieldwork II requirements of the OTA program. If a student is dissatisfied with the assigned placements, that student will be responsible for finding his/her own placement which must meet the Fieldwork II criteria of the OTA program.

Occupational Therapy Curriculum

Course No.	Course	Class Hours	Lab Hours	Credit Hours
	FIRST QUARTER (Fall)			
OTAT 101	Intro. to Occupational Therapy	3	3	4
OTAT 105	Survey of Medical Terminology	2	0	2
BIOL 151	Principles of Biology	4	2	5
PSYC 101	Introduction to Psychology	5	0	4
		13	5	15
	SECOND QUARTER (Winter)			
OTAT 202	Disease Pathology	4	0	4
BIOL 162	Human Anatomy & Physiology[1]	4	3	5
PSYC 151	Human Growth & Development	4	0	4
SOCI 101	Introduction to Sociology	4	0	4
		16	3	17
	THIRD QUARTER (Spring)			
OTAT 102	Therapeutic Media I[2]	1	6	3
OTAT 108	Practicum I (FWI)	1	6	2
OTAT 109	Applied Anatomy & Kinesiology	1	3	2
OTAT 110	Group Dynamics	1	3	2
ENGL 111S	Discourse & Composition	4	0	4
	Math/Science Elective[1]	4	0	4
		12	18	17
	FOURTH QUARTER (Summer)			
OTAT 204	Practicum II (FWI)	2	6	3
OTAT 102	Therapeutic Media I[2]	1	6	3
OTAT 203	OT in Developmental Disabilities	5	3	6
ENGL 112S	Composition & Research	4	0	4
		12	15	16
	FIFTH QUARTER (Fall)			
OTAT 208	Practicum III (FWI)	2	6	3
OTAT 210	OT in Physical Disabilities	4	6	6
OTAT 205	Therapeutic Media II[3]	1	6	3
SPCH 103	Public Speaking/Human Comm.	3	0	3
ENGL 121	Technical Writing	3	0	3
	Psychology/Sociology Elective	4	0	4
		17	18	22

	SIXTH QUARTER (Winter)			
OTAT 211	OTAT Seminar	2	0	2
OTAT 212	O.T. in Mental Health	3	3	4
OTAT 106	O.T. in Geriatric Program Planning	3	3	4
OTAT 205	Therapeutic Media II[3]	1	6	3
EMTA 101	First Aid[4]	2	0	2
		11	12	15
	SEVENTH QUARTER (Spring)			
OTAT 220	Clinical Application (FWII)[5]	0	40	6
OTAT 221	Clinical Application (FWII)[5]	0	40	6
			80	12

Physical Therapy Assistant

Physical Therapist Assistants are skilled technical health workers. They work under the supervision of physical therapists to help rehabilitate disabled persons so that they may again lead useful and productive lives. They may use heat, cold, electricity and exercise for the treatment of patients. The program is designed over a seven-quarter sequence; four quarters include clinical practicums. The program is accredited by the APTA Commission on Accreditation in Education of the American Physical Therapy Association.

Physical Therapist Assistant Curriculum

Course No.	Course	Class Hours	Lab Hours	Credit Hours
	FIRST QUARTER			
BIOL 115	Anatomy & Physiology	4	2	5
MATH 130	College Algebra I	5	0	4
ENGL 111S	Discourse and Composition	4	0	4
PTAT 101	Medical Terminology	2	0	2
PTAT 111	Principles of PTA	3	0	3
		18	2	18

SECOND QUARTER

PSCI 105	Physical Science	4	3	5
PSYC 101	Introduction to Psychology	5	0	4
ENGL 112S	Composition and Research	4	0	4
PTAT 112	PTA Procedures I	3	6	5
		16	9	18

THIRD QUARTER

BIOL 295	Kinesiology	4	3	5
PSYC 151	Human Growth & Development	4	0	4
ENGL 115S	Composition and Literature	4	0	4
PTAT 113	PTA Procedures II	3	6	5
		15	9	18

FOURTH QUARTER

SOCI 101	Introduction to Sociology	5	0	4
SPCH 103	Public Speaking & Human Comm.	3	0	3
PTAT 114	Anatomy & Kinesiology	3	6	5
PTAT 115	P.T. in Physical Dysfunction	3	0	3
PTAT 216	Clinical Practicum Seminar	1	4	2
		15	10	17

FIFTH QUARTER

PTAT 212	Clinical Practicum I	2	12	4
PTAT 202	PTA Procedures III	3	6	5
PTAT 231	Rehabilitation Procedures I	3	3	4
HPER 227 or EMTA 101	First Aid	2-4	0	2-4
		10-12	21	15-17

SIXTH QUARTER

PTAT 235	Physical Therapy Trends & Admin. Proc.	2	0	2
PTAT 232	Rehabilitation Procedures II	3	3	4
PTAT 213	Clinical Practicum II	2	12	4
	Social Science Elective	4	0	4
		11	15	14

	SEVENTH QUARTER			
PTAT 214	Clinical Practicum III	0	38	6
PTAT 255	PTAT Seminar	2	0	2
		2	38	8

*Students must have a current First Aid card prior to enrolling in PTAT 214. HPER 227 or EMTA 101 is not required if the student has a current First Aid card. This can be obtained either through HPER 227, EMTA 101 or at another agency.

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 accident.

The function of the practical nurse is to render personalized bedside patient care and assist with care in complex situations.

Practical Nursing is the entry level into nursing. The curriculum at Shawnee State University is structured to prepare students to take the State Board of Nursing examination for licensure.

Accreditation

The Practical Nursing Program has full approval by the Ohio Board of Nursing,* and the University is accredited by the North Central Association of Colleges and Schools.

Please Note:
*Felony conviction requires permission from State Board before taking the examination.

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 PNRS prefix.

It is the intent of the University to transfer the Practical Nursing Program to Scioto County Joint Vocational School in Fall 1989.

Practical Nursing Curriculum

Course No.	Course	Class Hours	Lab Hours	Clin Hours	Credit Hours
	FIRST QUARTER				
PNRS 101	Body Struc. & Function	4	2	0	4
PNRS 111	Practical Nursing I	6	3	14	10
PSYC 101	Introduction to Psychology	4	0	0	4
		14	5	13	18

	SECOND QUARTER				
PNRS 110	Nutrition	2	0	0	2
**PNRS 112	Practical Nursing II	8	6	14	6
**PNRS 115	Practical Nursing V	8	6	14	6
SOCI 101	Introduction to Sociology	4	0	0	4
		14	6	14	18
	THIRD QUARTER				
**PNRS 113	Practical Nursing III	12	2	14	8
**PNRS 116	Practical Nursing VI	12	2	14	8
		12	2	14	16
	FOURTH QUARTER				
**PNRS 114	Practical Nursing IV	12	2	21	9

**Half quarter courses

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 doctors' offices. The responsibility of the radiographer is to produce a radiographic (x-ray) image of the highest diagnostic quality of any designated area of the human body. It is from this image that the radiologist makes his or her interpretations.

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, clinical education, and specialized courses in radiography. The second year of the program consists of additional 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 Technologists.

Accreditation

The Radiologic Technology Program is fully accredited by the Committee on Allied Health Education and Accreditation of the American Medical Association, in collaboration with the Joint Review Committee on Education in Radiologic Technology.

*Students who are planning to continue their education toward a baccalaureate degree are advised to take CHEM 121.

**Communication/Leadership Elective
(Select one of the following):

Any English course 115S or higher
Any Speech course above 103
PSYC 270 Abnormal Psychology
PSYC 275 Educational Psychology
PSYC 131 Human Adjustment
PSYC 151 Human Growth & Development
BMNT 102 Intro. to Business
BMNT 201 Management Concepts
BMNT 202 Personnel Management
BMNT 241 Labor Relations
BMNT 242 Business Communications

or Approval of the Program Director

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 RDLT prefix.

After the first quarter, all subsequent technical courses are closely related and, therefore, must be taken in sequential order. The basic courses (psychology, speech, etc.) may be taken at the student's convenience assuming all prerequisites are satisfied.

For a student to remain in good standing in the radiologic technology program the following 3 conditions *must* be met:

1. The student must NOT receive a grade of "F" in any of the required courses listed in the eight quarter sequence.

2. The student must not receive a grade below a C- in any of the courses with the RDLT prefix.

3. The student must earn an overall grade point average of 2.000 by the end of the third quarter and maintain it throughout the remainder of the program.

If *any one* of these three conditions is not met the student will be academically dismissed from the radiologic technology program. Students may apply for readmission to the radiologic technology program the following year after they have successfully completed the required remedial work as detailed by the program director at the time of dismissal.

Radiologic Technology Curriculum

Course No.	Course	Class Hours	Lab Hours	Credit Hours
	FIRST QUARTER			
RDLT 101	Radiologic Technology I	2	6	4
MATH 130	College Algebra I	4	0	4
BIOL 290	Principles of Anatomy	4	3	5
ENGL 111S	Discourse and Composition	4	0	4
		14	9	17

SECOND QUARTER

RDLT 102	Radiologic Technology II	2	10	4
RDLT 200	Basic Patient Care	3	2	3
PSCI 105*	Physical Science	4	3	5
BIOL 291	Principles of Physiology	4	3	5
		13	18	17

THIRD QUARTER

ENGL 112S	Composition and Research	4	0	4
RDLT 103	Radiologic Technology III	3	2	3
RDLT 201	Radiographic Exposure	3	2	4
RDLT 211	Clinical Experience I	0	16	2
EDPT 101	Introduction to Data Processing	2	3	3
		12	23	16

FOURTH QUARTER

RDLT 104	Radiologic Technology IV	3	2	3
RDLT 212	Clinical Experience II	0	24	3
		3	26	6

FIFTH QUARTER

RDLT 111	Radiologic Physics	3	2	4
RDLT 105	Radiologic Technology V	3	0	3
RDLT 213	Clinical Experience III	0	24	3
SPCH 103	Public Speaking and Human Comm.	3	0	3
		9	26	13

SIXTH QUARTER

RDLT 106	Radiologic Technology VI	3	0	3
RDLT 112	Radiology and Radiation Prot.	3	0	3
RDLT 214	Clinical Experience IV	0	24	3
PSYC 101	Introduction to Psychology	4	0	4
		10	24	13

SEVENTH QUARTER

RDLT 107	Radiologic Technology VII	3	0	3
RDLT 113	Radiographic Processing	2	0	2
RDLT 215	Clinical Experience V	0	24	3
SOCI 101	Introduction to Sociology	5	0	4
**Elective	Communication/Leadership	3-4	0	3-4

EIGHTH QUARTER

RDLT 108	Radiologic Technology VIII	2	0	2
RDLT 216	Clinical Experience VI	0	32	4
		2	32	6

Respiratory Therapy

Respiratory Therapy is an Allied Health specialty, whose practitioners are employed under medical direction to provide treatment, management, diagnostic evaluation and care to patients with deficiencies or abnormalities associated with the process of breathing.

Respiratory Therapists work side-by-side with physicians, nurses and other health care team members to treat patients rangingin age from premature infants to the elderly. Their duties vary from the administration of oxygen, humidity and aerosols, and the drainage of lung secretions, to the use of technologically sophisticated, monitoring devices, and treatment techniques in order to assure the survival of patients with life threatening conditions such as head or chest trauma.

Some practitioners choose to spend the majority of their time working in diagnostic laboratories where they assist in the evaluation of the type and extent of a patient's pulmonary dysfunction and evaluate the effectiveness of the patient's current therapy. Other practitioners may choose to work in specialized areas of respiratory care including education, management, home care, sales, research, and specialized areas of diagnostic or patient care such as cardiovascular diagnostics or care of infants and children.

Program Description

In 1980 the Ohio Board of Regents approved the creation of this program of study leading to the Associate of Applied Science degree at Shawnee State University.

The graduate of this program will be eligible to sit for the examinations of the National Board for Respiratory Care. Successful completion of the "entry-level" examination of the NBRC will result in the student being awarded the CRTT (Certified Respiratory Therapy Technician) credential. After successful completion of the "entry-level" examination, graduates of this program are eligible to take the "advanced practitioner" examination of the NBRC. Successful completion of that examination will result in the student being awarded the RRT (Registered Respiratory Therapist) credential by the NBRC.

Accreditation

The Respiratory Therapy program at Shawnee State University is fully accredited by the Joint Review Committee for Respiratory Therapy Education and the Committee for Allied Health Education and Accreditation of the American Medical Association.

Employment Opportunities

Because of the rapid growth of the profession since its inception in the late 1940s, many medical institutions have found that their need for trained respiratory therapy practitioners has exceeded supply. In addition, many clinics, nursing homes, and home care programs are realizing the potential benefits of having a trained respiratory care practitioner on staff. These needs coupled with the ever increasing number of cardiovascular disorders being diagnosed should continue to assure that individuals who enter this profession will enjoy good career opportunities.

Respiratory Therapy Curriculum

Course No.	Course	Class Hours	Lab Hours	Credit Hours
	FIRST QUARTER			
BIOL 151	Principles of Biology	4	3	5
SPCH 103	Public Speaking and Human Communications	3	0	3
RPTT 100	Medical Terminology	2	0	2
RPTT 101	Basic Patient Care	2	3	3
RPTT 102	Cardiopulmonary/Renal Anatomy and Physiology	5	0	5
		16	6	18
	SECOND QUARTER			
BIOL 162	Human Anatomy and Physiology	4	3	5
ENGL 111S	Discourse & Composition	4	0	4
MATH 130	College Algebra I	4	0	4
RPTT 110	Medical Gas Therapy	3	3	4
RPTT 115	Clinical Application I	0	8	1
		15	14	18
	THIRD QUARTER			
CHEM 121	Introduction to General Chemistry	3	3	4
ENGL 112S	Composition & Research	4	0	4
RPTT 120	Perioperative Care	3	3	4
RPTT 121	Care of the Artificial Airway	1	3	2
RPTT 125	Clinical Application II	0	8	1
		11	17	15
	FOURTH QUARTER			
BIOL 235	Microbiology	4	3	5
RPTT 130	Pediatric and Neonatal Respiratory Care	4	0	4
RPTT 131	Pulmonary Function Testing	2	0	2
RPTT 132	Arterial Blood Gases/ Acid-Base	1	0	1
RPTT 133	Laboratory Procedures	0	3	1
RPTT 135	Clinical Application III	0	16	2
		11	22	15

FIFTH QUARTER

	*General Studies Electives	4	0	4
RPTT 200	Pharmacology	3	0	3
RPTT 201	Continuous Mechanical Ventilation	4	6	6
RPTT 202	Pathophysiology	3	0	3
RPTT 205	Clinical Application IV	0	16	2
		14	22	18

SIXTH QUARTER

	*General Studies Electives	4	0	4
RPTT 210	Critical Care	2	0	2
RPTT 211	Advanced Cardiopulmonary Assessment	1	0	1
RPTT 212	Pulmonary Rehabilitation and Home Care	2	0	2
RPTT 213	Department Management	1	0	1
RPTT 215	Clinical Application V	0	24	3
		10	24	13

SEVENTH QUARTER

RPTT 220	Seminar	4	0	4
RPTT 225	Clinical Application VI	0	40	8
		4	40	12

*General Studies Electives should be selected from the following approved list:

ANTH 101	Introduction to Anthropology (4)
ENGL	Any English not currently required ≥ Engl 115S
PHIL 110	Elements of Symbolic Logic (4)
PSYC 101	Introduction to Psychology (4)
SOCI 101	Introduction to Sociology (4)

Completion of quarters 1 through 7 leads to the Associate of Applied Science Degree and eligibility for both the national certification and registry examinations.

Notes

School of Business Administration

Bachelor of Science in Business Administration

Major in General Business

Associate of Applied Science

Accounting
Business Management
Management Emphasis
Majors in Banking and Finance, Real Estate, Retail Management
Data Processing
Secretarial
Majors in General Secretarial and Executive Secretarial

Bachelor of Science in Business Administration with a Major in General Business

The four-year program in General Business is designed to provide students with a broad understanding of business. The program focuses on the dynamics of business in all aspects. A broad based general education precedes an extensive education in general business. A successful student will have the necessary tools to enter into a career in business as well as to pursue graduate studies.

The General Business program has both a core set of courses and business and non-business electives. Students may choose, by consultation with their advisors, at least one upper division course in four of the five prescribed elective areas--Accounting, Automated Information Systems, Economics, Finance, and Management. Students will have some flexibility to design a program to meet their career goals. In summary form, the graduation requirements are as follows.

Graduation Requirements

1. General Education Core Course Requirements	50
2. Business Core Course Requirements	68
3. General Business Electives Upper Division Credit Requirements in four areas	16
4. Other Business Electives Minimum Credit Requirements	20
5. Non-Business Credit Requirements	24
6. Business or Non-Business Credit Requirements	8
TOTAL	186

Students must take a minimum of 74 hours of non-business courses (1 + 5 above). Two hours of non-business courses may be in Physical Education course(s). The following is an outline of curriculum by quarters for the B.S. degree in Business Administration.

Business Administration Curriculum

Course No.	Course	Lec Hours	Lab Hours	Credit Hours
	FIRST QUARTER			
ENGL 111S	Discourse and Composition	4	0	4
SOSC 110S	Foundations of Social Science	4	0	4
MATH 110S	Math in Society	4	0	4
ECON 101	Principles of Economics I	4	0	4
		16	0	16

	SECOND QUARTER			
ENGL 112S	Composition and Research	4	0	4
BIOL 110S	Man and the Biological World	4	lab	4
AISM 101	Intro. to Automated Information Systems	4	lab	4
ECON 102	Principles of Economics II	4	0	4
		16	labs	16
	THIRD QUARTER			
ENGL 115S	Composition and Literature	4	0	4
PSCI 110S	Man and the Physical World	4	lab	4
AISM 103	Computer Applications	4	lab	4
	Elective	4	0	4
		16	labs	16
	FOURTH QUARTER			
ENGL 225S	Civilization and Literature I	4	0	4
MATH 201	Calculus	4	0	4
	Electives1	8	0	8
		16	0	16
	FIFTH QUARTER			
ENGL 226S	Civilization and Literature II	4	0	4
ACCT 201	Financial Accounting Principles	4	0	4
MATH 255	Statistics I	4	0	4
	General Elective1	4	0	4
		16	0	16
	SIXTH QUARTER			
ENGL 227S	Civilization and Literature III	4	0	4
ACCT 210	Managerial Accounting	4		4
BUSL 270	The Legal Environment of Business	4	0	4
	General Elective1	4	0	4
		16		16
	SEVENTH QUARTER			
PHIL 320S	Ethics in Public and Private Life	4	0	4
MGNT 310	Management Principles	4	0	4
MGNT 330	Organizational Communication	4		4
	Upper Division Economics Elective2	4		4
		16		16

	EIGHTH QUARTER		
FINA 345	Managerial Finance	4	4
MRKT 310	Marketing Principles	4	4
	Business Elective	8	8
		16	16
	NINTH QUARTER		
MGNT 355	Quantitative Methods in Business	4	4
	Upper Division Business Elective[3]	4	4
	Business Elective[4]	4	4
	Business or Non-Business Elective[5]	4	4
		16	16
	TENTH QUARTER		
CORE 485S	Community Service	2	2
MGNT 385	Production/Operations Management	4	4
	Upper Division Business Elective[3]	4	4
	Business or Non-Business Elective[5]	4	4
		14	14
	ELEVENTH QUARTER		
	Upper Division Business Elective[3]	4	4
	Business Electives[4]	8	8
	Business or Non-Business Electives[5]	4	4
		16	16
	TWELFTH QUARTER		
CORE 490S	Senior Seminar	4	0 4
MGNT 485	Business Policy and Strategy	4	4
	Upper Division Business Elective[3]	4	4
	Business Elective[4]	4	4
		16	16

[1]Suggest courses in Government and Psychology and Sociology.

[2]Students must choose either ECON 301, 325, or 411.

[3]Students must choose one upper division course from any four of the following for 16 credit hours--Accounting, Management, Economics, Automated Information Systems and Finance.

[4]Other Business Electives must be at least 20 hours.

[5]Two hours of Non-Business electives may be in Physical Education; must take additional 6-8 hours of Non-Business courses.

Accounting Technology

The field of accounting offers many career opportunities in both the private and public sector.

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 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 functions. 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 judgement, 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 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.

Accounting Curriculum

Course No.	Course	Lec Hours	Lab Hours	Credit Hours
	FIRST QUARTER			
ACCT 101	Accounting I	3	4	4
ENGL 111S	Discourse and Composition	4	0	4
EXST 120	Business Machines I	0	2	1
	or approved elective (See Advisor)	4	0	4
*MATH	Math (See Advisor)	4	0	3
BMNT 101	Introduction to Business			
		15	6	16
	SECOND QUARTER			
ACCT 102	Accounting II	3	4	4
ENGL 112S	Composition and Research	4	0	4
ECON 101	Principles of Economics I	4	0	4
*MATH	Math (See Advisor)	4	0	4
BMNT 201	Management Concepts	4	0	4
		19	4	20
	THIRD QUARTER			
ACCT 103	Accounting III	3	4	4
ACCT 104	Tax Accounting	3	3	4
ENGL 115S	Composition and Literature	4	0	4
ECON 102	Principles of Economics II	4	0	4
		14	7	16

Second Year Curriculum
Accounting/Professional Emphasis

Course No.	Course	Lec Hours	Lab Hours	Credit Hours
	FOURTH QUARTER			
ACCT 211	Intermediate Accounting I	3	4	4
ACCT 221	Cost Accounting I	3	4	4
FINA 201	Principles of Finance	3	0	3
BUSL 250	Business Law I	4	0	4
	Social Science Elective	4	0	4
		17	8	19

	FIFTH QUARTER			
ACCT 212	Intermediate Accounting II	3	4	4
ACCT 222	Cost Accounting II	3	4	4
BMNT 242	Business Communications	4	0	4
EDPT 101	Intro. to Data Processing or	2	3	3
AISM 101	Intro. to Info Sys.	4	0	4
SPCH 103	Pub. Speaking & Human Comm.	3	0	3
		15	11	18
	SIXTH QUARTER			
ACCT 213	Intermediate Accounting III	3	4	4
ACCT	Accounting Elective	3	3	3
	Social Science Elective	4	0	4
BMNT 202	Personnel Management	4	0	4
**EDPT	Data Processing Elective	4	0	4
		18	7	19

Second Year Curriculum
Accounting/Management Emphasis

Course No.	Course	Lec Hours	Lab Hours	Credit Hours
	FOURTH QUARTER			
ACCT 221	Cost Accounting I	3	4	4
FINA 201	Principles of Finance	3	0	3
BUSL 250	Business Law I	4	0	4
	Social Science Elective	4	0	4
ACCT 211	Intermediate Accounting I	3	4	4
		17	8	19
	FIFTH QUARTER			
ACCT 222	Cost Accounting II	3	4	4
BUSL 260	Business Law II	4	0	4
EDPT 101	Intro.to Data Processing	2	3	3
SPCH 103	Pub. Speaking & Human Comm.	3	0	3
	Business Elective **	4	0	4
		16	7	18
	SIXTH QUARTER			
ACCT 110	Payroll Records/Accounting	2	3	3
EDPT	Data Processing Elective	3	4	4
	Social Science Elective	4	0	4
BMNT 202	Personnel Management	4	0	4

Business Elective **	3	0	3-4
	16	7	18-19

*Students with adequate high school mathematics should elect MATH 110S or MATH 130 if intending to pursue advanced degrees. They may take any math sequence from the list below as long as they have 8 credit hours and 10 contact hours for the two-year degree.

**BUSINESS ELECTIVES (See Advisor)

ACCT 110	Payroll Records/Accounting ((4)
ACCT 161	Accounting W/D.P. Application I (4)
ACCT 231	Governmental Accounting (4)
ACCT 241	Auditing
ACCT 261	Accounting W/D.P. Application II (4)
BMNT 102	Marketing Concepts
BMNT 241	Labor Relations (4)
EDPT 103	BASIC Language II (3)
EDPT 104	COBOL Programming I (4)
EDPT 105	COBOL Programming II (4)
EDPT 201	Systems Analysis & Design (4)
EXST 100	Keyboarding
EXST 101	Typing I (3)
EXST 121	Intro. to Word Processing (4)
FINA 204	Investments (4)
MATH 101	Basic Algebra
MATH 110S	Math Survey
MATH 125	Business Mathematics
MATH 155	Business Statistics
MATH 130	College Algebra I (4)
MATH 131	College Algebra II (4)
MATH 201	Calculus I (5)
RMMT 235	Advertising (3)
QMET 201	Quantitative Methods (4)

Business Management Technology with Majors in Retail Management, Banking/Finance, Business Management and 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 organizations, 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 pages, as their area of

emphasis. The remaining 8-14 technical electives may be chosen from the list of approved technical electives. This provides the student the opportunity to design a program compatible with individualized interest and career goals.

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 manager, assistant buyer or buyer, sales 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 the technical electives:

RMMT 103 Intro. to Retailing	4	0	4
RMMT 104 Salesmanship	4	0	4
RMMT 223 Retail Buying	4	0	4
RMMT 225 Marketing Case Studies	4	0	4
RMMT 233 Sales Promotion	4	0	4
RMMT 235 Advertising	4	0	4
BAFT 105 Installment Credit	4	0	4

Banking/Finance

The specialization in Banking and Finance is designed to provide individuals interested in a career in banking, savings and loans, 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 requisite 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 the technical electives required in the Business Management program:

BAFT 101 Banking and Finance	4	0	4
BAFT 102 Intro. to Commercial Lending	4	0	4
BAFT 105 Installment Credit	4	0	4
BAFT 106 Principles of Bank Operations	4	0	4
BAFT 202 Home Mortgage Lending	4	0	4
BAFT 204 Investments	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:

BAFT 105 Installment Credit	4	0	4
BMNT 241 Labor Relations	4	0	4
BMNT 242 Business Communication	4	0	4
BMNT 202 Personnel Management	4	0	4
FINA 201 Principles of Finance	3	0	3
RMMT 235 Advertising	4	0	4
RMMT 225 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:

REST 210 Real Estate Principles & Practices	4	0	4
REST 212 Real Estate Law	4	0	4
REST 213 Real Estate Finance	4	0	4
REST 214 Real Estate Appraisal	4	0	4
REST 215 Real Estate Brokerage	4	0	4
REST 218 Special Topics in Real Estate	4	0	4

Real Estate Sales Program

Persons wishing to take the Ohio examination for real estate sales 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

The purpose of the Graduate Realtors Institute is:

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

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 following: program requirements, application to the Ohio Association of Real Estate Boards, payment of required fees and successful completion of comprehensive examination.

Approved Technical Electives

Students may choose from the following courses for *technical electives* beyond those required for their major:

Any BMNT, RMMT, BAFT, or REST courses for which you have the required prerequisite.

EXST 100	Keyboarding
EXST 101	Typing I
EXST 102	Typing II
EXST 130	Records Management
EXST 221	Word Processing I
ACCT 103	Accounting III
ACCT 104	Tax Accounting
ACCT 110	Payroll Accounting
ACCT 221	Cost Accounting I
EDPT 101	Intro. to Data Processing
EDPT 103	Basic Language
EDPT 104	Basic Language II
EDPT 105	COBOL
EDPT 107	RPG
FINA 201	Principles of Finance

Please Note: Be sure that you have the required prerequisites.

Approved Social Science Electives

SOCI 205	Current Social Problems
SOCI 210	Women in Society
SOCI 434	Sociology of Aging
PSYC 273	Human Adjustment
PSYC 151	Human Growth & Development
PSYC 361	Industrial Psychology

Business Management Curriculum

Course No.	Course	Lec Hours	Lab Hours	Credit Hours
	FIRST QUARTER			
ENGL 111S	Discourse and Composition	4	0	4
MATH 101	Basic Algebra	4	0	4
ACCT 101	Accounting I	3	4	4
BMNT 101	Intro. to Business	4	0	4 (T)
	Technical Elective*	4	0	4 (T)
		19	4	20
	SECOND QUARTER			
ENGL 112S	Composition and Research	4	0	4
ACCT 102	Accounting II	3	4	4
BMNT 102	Marketing Concepts	4	0	4 (T)
MATH 125	Business Math	4	0	4
		15	4	16

	THIRD QUARTER			
ENGL 115S	Composition & Literature	4	0	4
EDPT 101	Intro. to Data Processing	2	3	3 (T)
	Technical Electives*	12	0	12 (T)
		18	3	19
	FOURTH QUARTER			
PSYC 101	Introduction to Psychology	4	0	4
BUSL 250	Business Law I	4	0	4
ECON 101	Principles of Economics I	4	0	4
	Technical Elective *	4	0	4 (T)
		16	0	16
	FIFTH QUARTER			
SOCI 101	Introduction to Sociology	4	0	4
BUSL 260	Business Law II	4	0	4
BMNT 201	Management Concepts	4	0	4 (T)
ECON 102	Principles of Economics II	4	0	4 (T)
		16	0	16
	SIXTH QUARTER			
SPCH 103	Public Speaking/Human Comm.	3	0	3
	Social Science Elective**	4	0	4
	Technical Electives*	12	0	12 (T)
		19	0	19

Data Processing and Computer Technology

The Data Processing and Computer Technology Associate Degree Program at Shawnee State University is designed to meet the manpower demand of industries, government, and educational institutions.

In addition to theoretical fundamentals, practical aspects of data processing are emphasized. Hands-on opportunity is provided and encouraged. Graduates of this program will be fully prepared to enter employment as staff members (computer programmers or operators) in computer installations and application departments or enroll in a four-year program as a fully accredited junior. Graduates of this technology receive an associate degree in Applied Business.

Job Opportunities

PROGRAMMER--Works closely with systems analysts to define problems, analyze the input data and output report requirements, and prepare a program of instructions

which the computer can follow to solve the problem.

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

DATA PROCESSING MANAGER Plans, coordinates and directs all data processing activities for organizations; supervises computer center installations.

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

Data Processing and Computer Technology Curriculum

Course No.	Course	Class Hours	Lab Hours	Credit Hours
	FIRST QUARTER			
ENGL 111S	Discourse and Composition	4	0	4
ACCT 101	Accounting I	3	4	4
MATH *	(Math Sequence--See Below)	4	0	4
EDPT 101	Introduction to Data Processing	2	3	3
EXST 100	Keyboarding	1	1	1
		14	8	16
	SECOND QUARTER			
ENGL 112S	Composition and Research	4	0	4
ACCT 102	Accounting II	3	4	4
MATH *	(Math Sequence--See Below)	4	0	4
EDPT 103	BASIC Language I	2	3	3
EDPT 105	COBOL Programming I	3	3	4
		16	10	19
	THIRD QUARTER			
ENGL 115S	Composition and Literature	4	0	4
ACCT 103	Accounting III	3	4	4
MATH 150	Principles of Statistics	4	0	4
EDPT 104	BASIC Language II	2	3	3
EDPT 106	COBOL Programming II	3	3	4
		16	10	19

FOURTH QUARTER

ENGL 121	Technical Writing	3	0	3
PSYC 101	Introduction to Psychology	4	0	4
BUSL 250	Business Law I	4	0	4
EDPT 206	FORTRAN IV	3	3	4
EDPT 208	RPG II	3	3	4
		17	6	19

FIFTH QUARTER

BMNT 201	Management Concepts	4	0	4
ECON 101	Principles of Economics I	4	0	4
EDPT 202	Computer Operation Management	3	0	3
EDPT 203	Business Projects	3	3	4
EDPT ***	Data Processing Elective	2-3	2-3	2-3
		17	6	19

SIXTH QUARTER

SPCH 103	Public Speaking and Human Comm	3	0	3
EDPT ***	Data Processing Electives	8-9	8-9	8-9
		12	9	15

***Data Processing Electives

		Credit Hours
EDPT 201	Assembler Programming	3
EDPT 204	Computer Applications	4
EDPT 205	Business Data Systems and Comm	3
EDPT 207	Pascal	4
AISM 310	Data Base Management	4
AISM 320	Systems Analysis and Design	4

*Math Sequence

Business Math, 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 with advisor's approval.

Secretarial Technology with Majors in Executive Secretarial and General Secretarial

Positions available after completion of one of the Secretarial Majors are:

General Secretarial--Is qualified to fill a broad range of office positions which require technical skills. This student will not be trained for shorthand dictation but will be qualified as a machine transcriptionist.

Executive Secretarial--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 and Legal Secretarial Within the executive or general secretarial program the students are trained to prepare medical and legal documents.

Word Processing Specialist Is qualified to keyboard, revise, and store documents for immediate or future use. This student will be fully trained in all functions of a word processing system.

Previous Typing and Shorthand Training Students who have had prior instruction at the high school level in typing and shorthand before coming to Shawnee State University may receive advanced placement for their work if they meet the following criteria:

1. If you have successfully completed at least 180 hours (one school year) of typing and/or shorthand and received full credit, you may substitute this credit for our Typing I and Typing II and/or Shorthand I and Shorthand II.

2. If you have completed at least 360 hours (two school years) of typing and/or shorthand and received a final grade of A or B in the second year, you may substitute this credit for our Typing III and/or Shorthand III.

If you are not proficient in typing from your shorthand notes into mailable copy under the pressure of being timed, then you should take our Shorthand III in order to be ready for Shorthand IV, which requires you to be proficient in doing mailable copy work.

Secretarial Technology Curriculum

Course No.	Course	Class Hours	Lab Hours	Credit Hours
	FIRST QUARTER			
ENGL 111S	Discourse and Composition	4	0	4
MATH 125	Business Mathematics	4	0	4
EXST 101	Typing I	3	2	3
*EXST 111	Shorthand I	3	2	3
BMNT 101	Introduction to Business	4	0	4
		18	4	18

SECOND QUARTER

ENGL 112S	Composition and Research	4	0	4
EXST 102	Typing II	3	2	3
*EXST 112	Shorthand II	3	2	3
ECON 101	Principles of Economics I	4	0	4
SOCI 101	Introduction to Sociology	4	0	4
		18	4	18

THIRD QUARTER

EXST 130	Records Management	3	2	3
ENGL 115S	Composition and Literature	4	0	4
EXST 140	Dictation & Transcription I	3	2	3
EXST 103	Typing III	3	2	3
*EXST 113	Shorthand III	3	2	3
EDPT 101	Intro. to Data Processing	2	3	3
		18	11	19

FOURTH QUARTER

BUSL 250	Business Law I	4	0	4
BMNT 242	Business Communications	4	0	4
*EXST 214	Shorthand IV	3	2	3
EXST 240	Dictation and Transcription II	3	2	3
EXST 241	Secretarial Practices I	3	2	3
EXST 221	Word Processing I	3	2	3
		20	8	20

FIFTH QUARTER

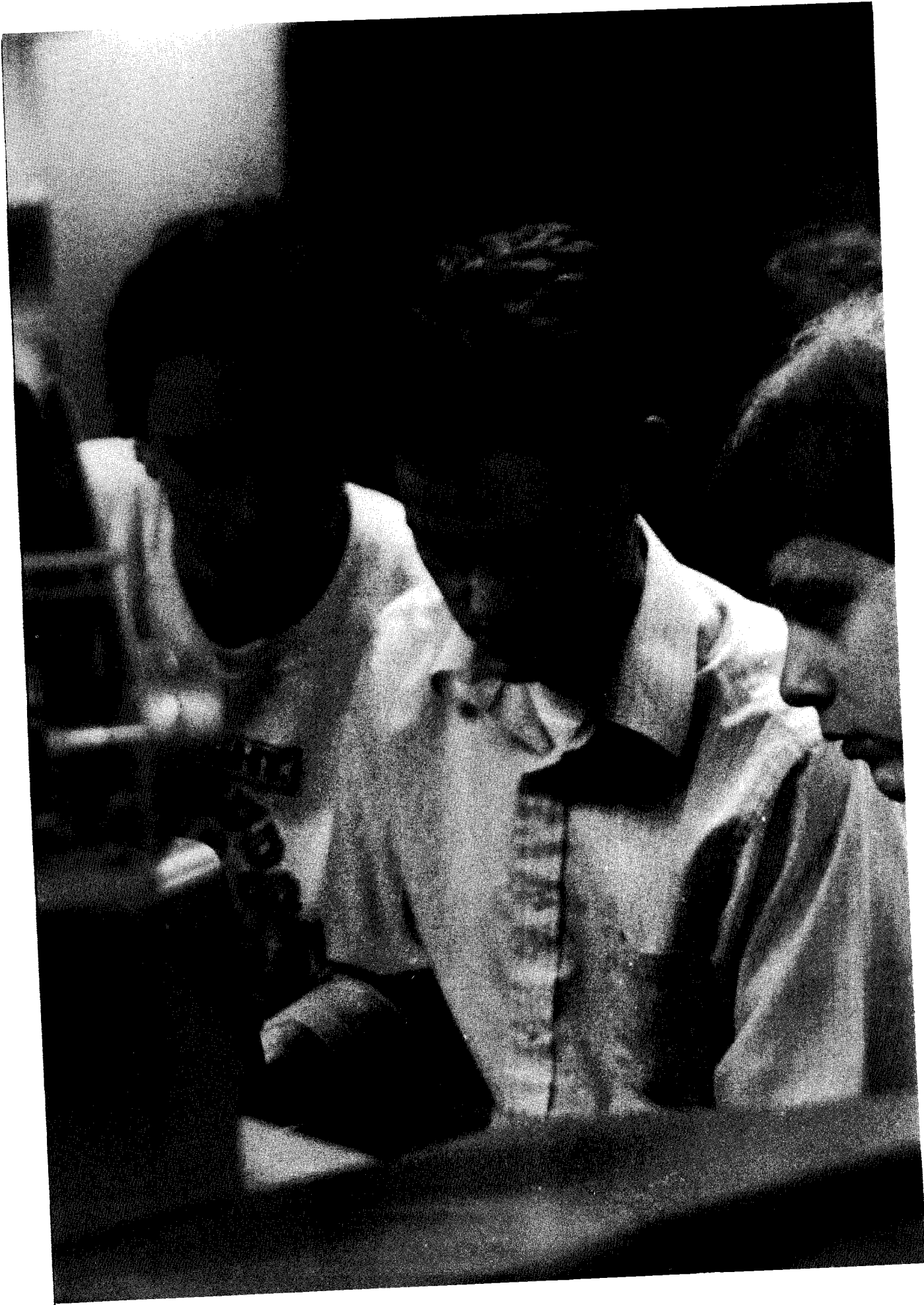
EXST 242	Secretarial Practices II	3	2	3
SPCH 103	Pub. Speaking & Human Comm.	3	0	3
PSYC 101	Introduction to Psychology	4	0	4
*EXST 215	Shorthand V	3	2	3
ACCT 101	Accounting I	3	4	4
EXST 222	Word Processing II	3	2	3
		19	10	20

SIXTH QUARTER

BMNT 202	Personnel Management	4	0	4
ACCT 110	Payroll Records & Accounting	2	3	3
*EXST 216	Shorthand VI	3	2	3
EXST 243	Secretarial Practices III	3	2	3
EXST 244	Medical Secretarial Practices	3	2	3
EXST 245	Legal Secretarial Practices	3	2	3
		18	11	19

*General secretarial majors must elect basic business courses instead of shorthand.

Notes



School of Engineering Technologies

Bachelor of Science Degree

Plastics Engineering Technology
Electrical/Computer Engineering Technology

Associate of Applied Science Degree

Plastics Engineering Technology
Electromechanical Engineering Technology
Instrumentation Technology
Optional Major in Robotics

Certificate Program in
Computer Aided Drafting and Design (CADD)

Bachelor of Science In Electrical And Computer Engineering Technology

The School of Engineering Technologies offers a Bachelor of Science degree in Electrical and Computer Engineering Technology. This degree will prepare graduates for a host of career opportunities in a rapidly-growing segment of the economy. Modes of life have been transformed dramatically by the widespread use of the computer, and it is certain that even more dramatic changes are in store for society as a result of current progress in Electrical and Computer Engineering Technology.

The Department of Labor predicts "fastest growing" rates in the following professions:

*Computer Analysts
*Computer Programmers
*Computer Service
*Electronic Technicians

This means that graduates of this program will have quite an advantage in the job market--which continues to become more and more competitive. Some of the positions available to graduates of the Electrical and Computer Engineering Technology program include

*Computer Programmer
*Control Specialist
*Data Communications Specialist
*Digital System Designer
*Hardware Designer
*Systems Analyst
*Maintenance Engineer
*Technical Manager
*Technical Representative
*Telecommunications Specialist

Entry level salaries and benefits for graduates of the Electrical and Computer Engineering Technology program are excellent.

Curriculum

The program builds on core areas in mathematics, physics, and engineering science with advanced courses exploring concepts in hardware and software design and the application of digital systems to other areas of engineering. High school students are encouraged to study a high school math-science curriculum. Developmental courses are available for those students who do not have an adequate math-science background. These courses can usually be studied at Shawnee State University during the Summer term before entering the Electrical and Computer Technology program in the Fall term.

Articulation

For the student who has an associate degree in an appropriate engineering technology program, an articulation arrangement will allow entry into the Electrical and Computer Engineering Technology program. The articulation will be arranged on an individual basis depending on the content of the associate degree program.

Electrical and Computer Engineering Technology Curriculum

Course No.	Course	Class Hours	Lab Hours	Credit Hours
	FIRST QUARTER			
MATH 131	College Algebra II	4	0	4
ENDR 101	Engineering Drawing I	1	4	3
ETCO 110	Introduction to Engineering Technology	1	0	1
EMNG 111	Electrical Fundamentals I (DC)	3	3	4
ENGL 111S	Discourse and Composition	4	0	4
		13	7	16
	SECOND QUARTER			
MATH 132	Trig and Analytic Geometry	4	0	4
BIOL 110S	Life Sciences	3	3	4
EMNG 112	Elec Fund II (AC)	3	3	4
EMNG 115	Electromechanical Devices	2	3	3
ENGL 112S	Composition and Research	4	0	4
		16	9	19
	THIRD QUARTER			
MATH 110S	Math and Society	4	0	4
PHYS 110S	Man and Physical Science	3	3	4
EMNG 121	Electronics I	2	4	3
EMNG 105	Electromechanical Drawing	1	3	2
ENGL 115S	Composition and Literature	4	0	4
		14	10	17
	FOURTH QUARTER			
MATH 201	Calculus I	4	0	4
EMNG 201	Introduction to EM Systems	2	3	3
EMNG 122	Electronics II	2	3	3
EMNG 202	Mechanical Systems	2	3	3
EMNG 204	Control Devices	2	3	3
		12	12	16
	FIFTH QUARTER			
PHYS 301	Physics I	3	3	4
MATH 202	Calculus II	4	0	4

ENGL 121	Technical Writing	3	0	3
EDPT 103	Basic Language I	2	3	3
EMNG 211	Electronic Logic Circuits I	2	4	3
		14	10	17

SIXTH QUARTER

PHYS 302	Physics II	3	3	4
EDPT 206	Fortran IV	3	3	4
EMNG 215	Electromechanical Design	1	5	3
CADD 101	CADD	1	5	3
EMNG 212	Electronic Logic Circuits II	2	4	3
		10	20	17

ETEC 285 Summer Internship: 1 credit hour

SEVENTH QUARTER

PHYS 303	Physics III	3	3	4
ETEC 310	Network Analysis	4	0	4
ETEC 320	Digital Computer Systems I	3	3	4
ETEC 330	Advanced Program Language	1	5	3
ENGL 225S or HIST 225S	Civilization and Literature I	4	0	4
		15	11	19

EIGHTH QUARTER

ETCO 310	Fluid Power	3	2	4
ETEC 321	Digital Computer Systems II	3	3	4
EMNG 209	Robotics	2	2	3
ENGL 226S or HIST 226S	Civilization and Literature II	4	0	4
		12	7	15

NINTH QUARTER

ETEC 340	Computer Operating Systems	2	3	3
ETEC 350	Advanced Micro Design	3	3	4
SOCI110S	Foundations of Social Sciences	4	0	4
ETEC 210	Occupational Safety and Health	3	0	3
ENGL 227S or HIST 227S	Civilization and Literature III	4	0	4
		16	6	18

ETEC 385	SUMMER TERM INTERNSHIP: 1 credit hour			
	TENTH QUARTER			
ETEC 420	Discrete Math and Digital Sig. Process	4	0	4
ETEC 425	Database Management System	3	0	3
ETEC 430	Computer Intfg System	3	3	4
ETEC 435	Power Dist.	4	0	4
CORE 485S	Community Service	*	*	2
		*	*	17
	ELEVENTH QUARTER			
ETEC 440	Digital Control Systems	3	3	4
ETEC 490A	Senior Project I	*	*	4
ETEC 445	Data Communication	4	0	4
ETCO 320	Industrial Management	3	0	3
		*	*	15
	TWELFTH QUARTER			
ETEC 460	Manufacturing Automation	4	0	4
ETEC 490B	Senior Project II	*	*	4
CORE 490S	Senior Seminar	*	*	2
PHIL 320S	Ethics in Public & Private Life	4	0	4
		*	*	14

*Variable hours, dependent on project approvals.

Bachelor of Science in Plastics Engineering Technology

The term engineering technology is described by the Accreditation Board for Engineering and Technology as follows:

Engineering Technology is that part of the technological field which requires the application of scientific and engineering knowledge and methods combined with technical skills in support of engineering activities: it lies in the occupational spectrum between the craftsman and the engineer at the end of the spectrum closest to the engineer.

This description reflects the common understanding among people in engineering and related professions that the engineering technologist is a distinct type of professional whose main concern and interest is with existing operation, maintenance and management of products and processes. Technologists are finding increasing acceptance in positions formerly filled by engineers in such fields as sales

engineering, manufacturing engineering, field service engineering, process engineering, and product engineering.

Plastics Engineering Technology applies this concept of engineering technology to the specific domain of plastics processing. Products produced by the plastics industry range from simple articles like bottles and cups to highly intricate molded parts for the automotive, electronics, and medical products industries.

The production of these products requires knowledgeable technologists who can design a product, select the best plastic for that product, design a mold, and establish the optimum operating conditions for the machines that are used to mold the product. The plastics engineering technology program prepares the student to become a member of the team that accomplishes these objectives.

The program emphasizes plastics molding operations and includes significant components in the areas of materials, mold design, and production methods. Graduates of the program are expected to have attained a level of expertise that will enable them to assume an entry-level management position in a plastics production environment. Typical job titles are process engineer, project engineer, and production manager.

The specific topics of plastics engineering technology are supported by instruction in topics of general importance to engineering technologists. These topics are included in the engineering technology core curriculum, which is required for all plastics engineering technology students.

Bachelor of Science in Plastics Engineering Technology Curriculum

Course No.	Course	Class Hours	Lab Hours	Credit Hours
	FIRST QUARTER			
ENGL 111S	Discourse & Composition	4	0	4
MATH 110S	Math in Society	4	0	4
CHEM 141	General Chem I	3	3	4
PENG 101	Intro to Plastics	3	3	3
ETCO 110	Intro to Engineering Technology	1	0	1
		15	6	16
	SECOND QUARTER			
ENGL 112S	Research & Composition	4	0	4
MATH 131	College Algebra II	4	0	4
CHEM 142	General Chem II	3	3	4
ENDR 101	Engineering Drawing I	1	4	3
PENG 102	Machine Tools	1	4	3
		13	11	18

THIRD QUARTER

ENGL 115S	Composition & Literature	4	0	4
MATH 132	Trig/Analytic Geometry	4	0	4
CHEM 143	General Chem III	3	3	4
EDPT 103	Basic Language	2	3	3
ENDR 102	Engineering Drawing II	1	4	3
		14	10	18

FOURTH QUARTER

PHYS 110S	Man & Physical Science	4	0	4
ETEC 210	Intro to Electricity	3	3	4
PENG 240	Plastics Processing I	2	3	3
CHEM 200	Intro to Organic Chemisty I	3	3	4
		12	9	15

FIFTH QUARTER

BIOL 110S	Life Sciences	4	0	4
MATH 201	Calculus I	4	0	4
PENG 241	Plastics Processing II	2	3	3
CHEM 201	Intro to Organic Chem II	3	3	4
		13	6	15

SIXTH QUARTER

SOCI 110S	Foundations of Social Science	4	0	4
MATH 202	Calculus II	4	0	4
ETEC 220	Intro to Electronics	3	3	4
PENG 242	Plastics Processing III	2	3	3
		13	6	15

SEVENTH QUARTER

ENGL 225S/ HIST 225S	Civilization & Literature	4	0	4
PHYS 301	Physics I	3	3	4
ENGL 121	Technical Writing	3	0	3
PENG 203	Testing of Plastic Materials	3	3	4
PENG 310	Properties of Thermoplastic Resins	2	3	3
		15	9	18

EIGHTH QUARTER

ENGL 226S/ HIST 226S	Civilization & Literature	4	0	4
PHYS 302	Physics II	3	3	4
ETCO 310	Fluid Power	3	2	4
EMNG 209	Robotics	2	2	3
PENG 311	Properties of Thermoset Resins	2	3	3
		14	10	18

NINTH QUARTER

ENGL 227S/ HIST 227S	Civilization & Literature	4	0	4
PHYS 303	Physics III	3	3	4
CADD 210	CADD	1	5	3
PENG 312	Composites	2	3	3
CHEM 350	Polymer Chemistry	2	3	3
		12	14	17

TENTH QUARTER

PHIL 320S	Ethics in Public & Private Life	4	0	4
PENG 410	Mold Design I	2	4	2
ETCO 210	Occupational Safety and Health	3	0	3
PENG 420	Plastic Part Design	2	4	3
PENG 490	Senior Project	0	0	4
		11	8	16

ELEVENTH QUARTER

PENG 411	Mold Design II	2	4	3
ETCO 320	Industrial Management	3	0	3
PENG 450	Advanced Processing I	3	3	4
PENG 209	Fabrication & Finishing	3	3	4
PENG 205	Plant Layout/Material Handling	3	2	3
		14	12	17

TWELFTH QUARTER

CORE 485S	Community Service			2
CORE 490S	Senior Seminar			4
PENG 460	Advanced Processing II	3	3	4
PENG 202	Production Control & Planning	3	3	4
PENG 303	Quality Control	3	3	4
		9	9	18

Associate of Applied Science in Electromechanical Engineering Technology

The School of Engineering Technologies offers an Associate of Applied Science degree in Electromechanical Engineering Technology. This degree will prepare graduates for many career opportunities in a rapidly-growing segment of the economy. Modern life is very dependent on Electromechanical Technology. Nearly every aspect of living is dependent on electricity. The Electromechanical Technology Program is designed to prepare the individual to become a competent electromechanical technician capable of working and communicating with engineers, scientists, and production personnel. An electromechanical technician is more valuable to industry than an electrical technician, electronic technician, or a mechanical technician because the electromechanical technician is exposed to all three areas, and consequently, is more versatile. Industry needs a technician who can perform in all of these areas--not one who can perform exclusively in one area. The job market is almost unlimited for Electromechanical Engineering Technology graduates. Listed are examples of positions in which our graduates are employed:

*Computer Development Technician
*Computer Service Technician
*Draftsman
*Electrician
*Electronic Assembler
*Electronic Assembly Foreman
*Engineer--Coal Mining Equipment Manufacturing
*Instrumentation Technician
*Maintenance Foreman

Entry level salaries and benefits for graduates of the Electomechanical Engineering Technology program are excellent.

Electromechanical Engineering Technology Curriculum

The first year of the program provides a firm foundation in mathematics, physics, electricity, and basic electronics. The second year builds directly on this background with applied electronics courses in such areas as logic circuits, controls, instrumentation, robotics, and systems. Other courses such as Mechanics, Statics and Strength of Materials, and Hydraulics and Pneumatics provide the student a very broad base of knowledge. Although the curriculum prepares the student for technical employment, a portion is devoted to non-technical subjects in order to assist the individual in developing as a citizen and responsible human being. We expect our graduates to be "well-rounded," not just well prepared in their immediate technology.

Course No.	Course	Class Hours	Lab Hours	Credit Hours
	FIRST QUARTER			
ENGL 111S	Discourse and Composition	4	0	4
MATH 130	College Algebra I	4	0	4

ECON 101	Economics	4	0	4
EMNG 111	Electrical Fundamentals I	3	3	4
ENDR 101	Engineering Drawing I	1	4	3
		16	7	19

SECOND QUARTER

ENGL 112S	Composition and Research	4	0	4
MATH 131	College Algebra II	4	0	4
PHYS 201	Physics I (mechanics)	3	3	4
EMNG 115	Electromechanical Devices	2	3	3
EMNG 112	Electrical Fundamentals II	3	3	4
		16	9	19

THIRD QUARTER

ENGL 115S	Composition and Literature	4	0	4
MATH 132	Trig. and Analytic Geometry	4	0	4
PHYS 202	Physics (electricity)	3	3	4
EMNG 121	Electronics I	2	4	3
EMNG 105	Electromechanical Drawing	1	3	2
		14	10	17

FOURTH QUARTER

ENGL 121	Technical Writing	3	0	3
PHYS 203	Physics (heat, light, sound)	3	3	4
EMNG 201	Introduction to Electromechanical Systems	2	3	3
EMNG 202	Mechanical Systems	2	4	3
EMNG 204	Control Devices	2	3	3
EMNG 122	Electronics II	2	3	3
		14	16	19

FIFTH QUARTER

SOCI 101	Introduction to Sociology	4	0	4
EMNG 211	Electronic Logic Circuits I	2	4	3
EMNG 209	Robotics	2	2	3
EMNG 208	Automatic Control Systems	3	2	3
EMNG 206	Hydraulics and Pneumatics	3	2	3
ETCO 210	Occupational Safety and Health	3	0	3
		17	10	19

SIXTH QUARTER

PSYC 101	Introduction to Psychology	4	0	4
EMNG 212	Electronic Logic Circuits II	2	4	3
EMNG 215	Electromechanical Design	1	5	3
EMNG 220	Electromechanical Systems	2	3	3
ENGR 209	Industrial Supervision	3	0	3
		12	12	16

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

Robotics Major Option

Students enrolled in Electromechanical Engineering Technology or Instrumentation Technology may earn a major in Robotics. Students must have advisor approval and must complete 20 credit hours of the following courses in numerical sequence:

ROBO 210	Introduction to Robotics	4 credit hours
ROBO 211	Robotic Interfacing	4 credit hours
ROBO 212	Robotic Applications	4 credit hours
ROBO 213	Advanced Robotic Applications	4 credit hours
ROBO 214	Robotic Maintenance-Servicing	4 credit hours

Articulation

For the student who earns an associate degree in Electromechanical Engineering Technology, an articulation arrangement will allow entry into the four-year Electrical and Computer Engineering Technology program at Shawnee State University.

Associate of Science in Instrumentation Technology

The School of Engineering Technologies offers an Associate of Applied Science Degree in Instrumentation Technology.

Instrumentation is the field of science dealing with the art of measurement, control, and process manipulation. The instrumentation technician must calibrate equipment within the standards set by the Bureau of Standards in Washington D.C. Although much of this work has been done by electricians and other in-house workers, the rise in automation and computer control has created a need for workers who are specially trained in the field.

This degree will prepare graduates for many career opportunities in a rapidly-growing segment of the economy. Modern manufacturing is dependent on Instrumentation Technology. Every aspect of automation and process control is dependent on the instrument technician. The Instrumentation Technology Program is designed to prepare the individual to become a competent instrumentation technician capable of working and communicating with engineers, scientists, and production personnel. An instrumentation technician is more valuable to industry than an electrical technician, electronic technician,

or a mechanical tehnician because the instrumentation technician is exposed to all areas of automation and process control, and consequently, is more versatile. Industry needs a technician who can perform in all of these areas--not a technician who can perform exclusively in one area.

The job market is almost unlimited for the Instrumentation Technology graduate. Listed are examples of positions in which our graduates are employed:

Draftsman
Electrician
Maintenance Foreman
Process Operator
Instrument Technician
Supervisor Bio-Med Technicans
Plant Engineer
Maintenance Supervisor
Supervisory Engineer
Supervisor of Instrumentation and Electrical Technicians

The salaries for graduates of the Instrumentation Technology Program are excellent.

Associate of Science in Instrumentation Technology Curriculum

The first year of the program provides a firm foundation in mathematics, physics, electricity, and basic electronics. The second year builds directly on this background with applied electronics, controls, instrumentation, analog and computer control systems. Other courses such as Fluid Mechanics, Programmable Logic Controllers, and Hydraulics and Pneumatics provide the student a very broad base of knowledge. Although the curriculum prepares the student for technical employment, a portion is devoted to non-technical subjects in order to assist the individual in developing as a citizen and responsible human being. We expect our graduates to be "well-rounded," not just well prepared in their immediate technology.

Course Number	Course	Class Hours	Lab Hours	Credit Hours
	FIRST QUARTER			
ENGL 111S	Discourse and Composition	4	0	4
MATH 101	Basic Algebra	4	0	4
IMST 101	DC Circuits and Machines	2	5	4
ENDR 101	Engineering Drawing 1	1	5	3
	*Technical Elective			
		11	10	15
	SECOND QUARTER			
ENGL 112S	Research and Composition	4	0	4
MATH 130	College Algebra I	4	0	4
IMST 102	AC Circuits and Machines	2	5	4
PHYS 201	Physics (mechanics)	3	3	4
ENDR 100	Blueprint Reading	2	0	2
		15	8	18

THIRD QUARTER

ENGL 115S	Composition and Literature	4	0	4
MATH 131	College Algebra II	4	0	4
IMST 111	Industrial Electronics	2	5	4
IMST 103	Industrial Electricity	2	5	4
IMST 120	Process Instrumentation	3	3	4
		15	13	19
*IMST 185	Instrumentation Internship	0	40	6

FOURTH QUARTER

ENGL 121	Technical Writing I	3	0	3
IMST 211	Fluid Mechanics 1	3	3	4
PSYC 101	Introduction to Psychology	4	0	4
EMNG 206	Hydraulics and Pneumatics	3	2	3
		13	5	14

FIFTH QUARTER

IMST 224	Industrial Control 1	3	3	4
*IMST 212	Fluid Mechanics 2	3	3	4
IMST 221	Instrument Fundamentals 1	3	3	4
ETCO 210	Occupational Safety and Health	3	0	3
ECON 101	Principles of Economics 1	4	0	4
		16	9	19

SIXTH QUARTER

ENGR 209	Industrial Supervision	3	0	3
IMST 222	Instrument Fundamentals 2	3	4	4
IMST 223	Measurement Principles	3	4	4
IMST 225	Industrial Control 2	3	3	4
		12	11	15

*Denotes classes that can be used as a Technical Elective or may be substituted by one of the following classes.

*Technical Elective: IMST 202 Programmable Controllers 1
IMST 203 Programmable Controllers 2

ROBOTICS MAJOR

Students enrolled in Electromechanical Engineering Technology or Instrumentation Technology may earn a major in Robotics. Students must have advisor approval and must complete 20 credit hours of the following courses in numbered sequence:

ROBO 210 Introduction to Robotics (4 credit hours)
ROBO 211 Robotic Interfacing (4 credit hours)
ROBO 212 Robotic Applications (4 credit hours)
ROBO 213 Advanced Robotic Applications (4 credit hours)
ROBO 214 Robotic Maintenance-Servicing (4 credit hours)

Associate of Applied Science in Plastics Engineering Technology

Today, plastics is one of the fastest growing industries in the United States. The economic impact of the plastic industry exceeds 90 billion dollars yearly and provides approximately 1.4 million jobs. As plastics continues its rapid growth in both sales and consumption volume, the industry will continue to lead others in both expansion and stability. Plastics have truly become the materials of the future. The projected forecasts of growth trends are creating positive employment opportunities for the qualified technician.

The Plastics Engineering Technology Associate Degree program prepares the student to become a valuable and integral part of the multifaceted plastics field. Graduates of this program are prepared for employment in any of the three main areas of the plastics industry: Chemical, Processing, or Fabricating.

Students learn in the laboratory and classroom the fundamentals essential for entry-level employment in these industries. All the technical classes involve both laboratory and lecture that are oriented to the production/supervision environment.

Those who choose this program will be prepared to enter areas dealing with injection molding, extrusion, blow molding, thermoforming, RIM, structural and non-structural foams, RO processing, rotomolding, supervision, industrial statistics, mold preparation, setup, quality control, production control, fabrication and semi-professional research, and development positions as well as many others not mentioned.

Job opportunities and positions available for the Plastics Technology graduate might be

Entry-level Supervision-- Supervisory trainee is a commonly acquired position for a graduate who is interested in manufacturing and production in a plastics processing situation.

Process Engineer--Assists company engineers in the development of prototype molds and the troubleshooting of current production molds.

Quality Control Supervisor--Responsible for setting up and maintaining Quality Control, SQC specifications and standards for quality molding operations.

Production Technician--Operates and supervises the operation of commercial equipment used in the production of plastic items, such as an extruder, injection molding machine, thermoformer, etc.

Senior Technician--Supervises other technicians in various types of operations and takes part in projects or process evaluations.

Application Research Technician--Blends and compounds plastics with additives,

fillers, colors, etc. Assists in selecting proper plastics for specific products and applications.

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.

Quality Control Technician
Samples raw materials and finished products and performs numerous tests to assure compliance with quality specifications.

Pilot Plant Technician
Assistant to an engineer in operating experimental pilot plants. Responsible for maintaining high production levels.

Chemical Production Technician--Controls operation of chemical production facilities, and is responsible for maintaining high production levels.

Chemical Research 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 materials problems.

Many other positions are available with the attainment of the of the proper types of professional work experiences. Numerous types of supervisory level positions are open to the experienced technician with solid technical training, as well as the ability and desire to assume responsibility.

Associate of Science in Plastics Engineering Technology Curriculum

Course No.	Course	Class Hours	Lab Hours	Credit Hours
	FIRST QUARTER			
PENG 101	Intro to Plastics	3	2	3
PENG 102	Machine Tools	2	4	3
CHEM 121	Intro to General Chemistry I	3	3	4
ENGL 111S	Discourse & Composition	4	0	4
MATH 130	College Algebra I	4	0	4
		16	9	18
	SECOND QUARTER			
ENDR 101	Engineering Drawing I	1	4	3
CHEM 122	Intro to General Chemistry II	3	3	4

ENGR 101	Industrial Supervision	3	0	3
ENGL 112S	Composition & Research	4	0	4
MATH 131	College Algebra II	4	0	4
		15	7	18

THIRD QUARTER

PENG 103	Extrusion/Blow Molding	2	3	3
CHEM 123	Intro to Organic Chemistry	3	3	4
IMST 120	Process Instrumentation	3	3	4
ENGL 115S	Composition & Literature	4	0	4
MATH 132	Trig/Analytic Geometry	4	0	4
		16	9	19

FOURTH QUARTER

PENG 104	Thermoforming	2	3	3
PENG 209	Fabrication/Finishing	3	3	4
PENG 206	Intro to Polymer Science	3	2	3
PHYS 201	Physics I (Mechanics)	3	3	4
ENGL 121	Technical Writing	3	0	3
		14	11	17

FIFTH QUARTER

PENG 105	Injection Molding	2	3	3
PENG 203	Testing of Plastics	2	3	3
PENG 205	Plant Layout/Material Handling	3	2	3
PHYS 202	Physics II (Electricity)	3	3	4
ETCO 210	Occupational Safety & Health	3	0	3
ECON 101	Economics I	4	0	4
		17	11	20

SIXTH QUARTER

PENG 201	Thermal Molding Machine Controls	3	3	4
PENG 202	Production Control & Planning	3	3	4
PENG 207	Fundamentals of Processing, Equipment, Maintenance	2	0	2
PENG 210	Properties of Materials	3	3	4
PHYS 203	Physics III (Heat, Light, Sound)	3	3	4
		14	12	18

Each student will be assigned a faculty advisor and may elect a different sequence of math with advisor approval.

Prerequisites for each PENG course are identified under the course descriptions in this catalog.

Students graduating with the Plastics Engineering Technology Associate Degree may wish to continue classes at Shawnee State University and complete the Plastics Engineering Technology Bachelor's Degree program. This may be accomplished by fulfilling the criteria described in the plastics programs' articulation policies. These policies may be reviewed and arrangement for articulation made with your faculty advisor.

Computer Aided Drafting and Design Technician Program

One-year Certificated Program

The School of Engineering Technologies offers a Technician's Certificate in CADD. This certificate will prepare graduates for a career in a field that is rapidly replacing the drawing board. Microcomputers have made CADD practical for most companies who do drafting, design and engineering. CADD is one of the fastest growing fields today. The demand is expected to increase steadily through the 1990's.

CADD operators are in demand in all the following fields and industries:

- Automobile
- Aerospace
- Aluminum
- Agriculture
- Building and construction
- Civil engineering
- Electronics
- Foundry
- Home appliance
- Medical equipment manufacture
- Packaging
- Petroleum
- Piping
- Plastics
- Process instrumentation
- Steel
- Tool design
- Transportation
- Utilities
- Welding

Some unique uses of CADD are in law enforcement, cosmetic dentistry, and cosmetic surgery.

"Draftsperson with CADD experience wanted." You've seen the ads. You can be that person, with the proper CADD training. CADD operators typically earn higher wages than do conventional drafters. Job opportunities await in all the above fields.

Curriculum

This program gives intensive hands-on training in the disciplines of drafting that industry has needed in the past and will continue to need. Students will take eleven drafting courses in the four quarters. Two of these will be taught using the conventional drafting board and instruments. Both CADD draftspersons and manual draftspersons will be needed for the near future at least.

Computer Aided Drafting and Design Technician Program Curriculum

Course No.	Course	Class Hours	Lab Hours	Credit Hours
	FIRST QUARTER			
EXST 100	Keyboarding	0	2	1
ENDR 101	Engineering Drawing I	1	4	3

CADD 101	Introduction to CADD	1	5	3
MATH 101	Basic Algebra	4	0	4
ENGL 111S	Discourse and Composition	4	0	4
		10	11	15

SECOND QUARTER

MATH 130	College Algebra I	4	0	4
CADD 102	Mechanical Drawing With 3D	1	5	3
CADD 103	Electronic Schematics & Wiring Diagrams	1	5	3
PSYC 101	Introduction to Psychology	4	0	4
		10	10	14

THIRD QUARTER

ENDR 102	Engineering Drawing II	1	5	3
CADD 104	Advanced Technical Drawing	1	5	3
CADD 105	Mapping With CADD	1	5	3
SOCI 101	Introduction to Sociology	4	0	4
		7	15	13

FOURTH QUARTER

CADD 106	Structural Details & Floor Plans	1	5	3
CADD 107	Piping Drawings	1	5	3
CADD 108	Welding Drawings	1	5	3
CADD 109	Castings & Mold Design	1	5	3
		4	20	12

Notes

Division of Arts and Humanities

Bachelor of Arts

English/Humanities
English/Humanities with Elementary Education Certification

Associate of Arts

Art
Communications
Comparative Arts
English
Journalism
Music
Theater

Bachelor of Arts with a Major in English/Humanities

The Division of Arts and Humanities offers a Bachelor of Arts with a major in English/Humanities. This degree will provide students who love the study of the English language and humanities an opportunity to combine their literary bent with other courses for a variety of career opportunities. To complete the degree, students must complete 44 hours of English and 20 hours from the many areas which make up the humanities curriculum.

Many careers require excellent communications skills, and students can prepare by taking the appropriate courses for careers in fields such as journalism, advertising, public relations, magazine writing, broadcasting, and technical writing.

In addition, students can take the courses necessary for certification to teach English/Humanities in elementary schools. Students who major in English/Humanities with Elementary Education Certification must successfully complete one of two programs in addition to meeting all requirements in the University Core. (Twenty-four hours of upper division courses are required in English; four hours of upper division work are required in the Humanities electives.)

English/Humanities Curriculum

Please Note: OPTION A REQUIRES 8 HOURS OF LINGUISTICS; and OPTION B REQUIRES 4 HOURS OF LINGUISTICS AND 4 HOURS OF LITERATURE BEFORE 1800.

Options A & B

Hours	Option	Area
4	A & B	Introduction to Literature
8	A	Linguistics
4	B	Nature of Language (Required of all majors)
		OPTION A ALTERNATIVES:
		Patterns of English
		The History of English
8		A & B Surveys of Literature
		selected from among the following:
		Survey of English Lit I
		Survey of English Lit II
		Survey of American Lit I
		Survey of American Lit II
4	A & B	Shakespeare

Hours	Option	Area
4	A & B	Theory and Practice in Composition
4	B	Literature Before 1800 Medieval Literature Sixteenth Century Renaissance Lit Seventeenth Century Poetry and Prose Restoration and Eighteenth Century English Lit Major English Authors (Variable Content)
4	A & B	Literature After 1800 *selected from among the following:* The Romantics The Victorians 20th Century English Lit The English Novel Modern English Drama Major English Authors (Variable Content)
4	A & B	American Literature *selected from among the following:* 19th Century American Lit 20th Century American Lit The American Novel Modern American Drama Modern American Poetry Major American Authors (Variable Content)
4	A & B	Literature as Social Perspective *selected from among the following:* Introduction to Folklore Appalachian Literature River Literature Women in Literature Literature of Initiation and Experience

Hours	Option	Area
		Black Authors Literature of Aging Death and Dying Regional Literature (Variable Content) Readings in Popular Lit (Variable Content) Fundamentals of Rhetoric Fundamentals of Criticism Political Literature The English Teacher and Society Literacy
20	A & B	Humanities Electives *(courses from areas: four hours must be upper division.)* Art History Music History Comparative Art Foreign Language Theater History Philosophy World Literature Non-Western Literature (Variable Content) Humanities
64 Hours		**Total for Major in English/Humanities**

Associate of Arts

Shawnee State University offers an Associate of Arts degree for those students wishing to complete a two-year program of general education with an emphasis in the arts or those wishing to transfer to another university for the last two years of a bachelor's degree.

Curriculum

I. Core Requirements

A. Composition -- 12 hrs.

ENG 111S Discourse and Composition	4
ENG 112S Composition and Research	4
ENG 115S Composition and Literature	4

B. Natural Sciences -- 12 hrs.

BIOL 110S Man and the Biological World	4
PSCI 110S Man and the Physical World	4
MATH 110S Mathematics in Our World	4

C. Social Science -- 16 hrs.

SOSCI 110S Foundations of Social Sciences	4
ENG/HIST 225S, 226S, or 227S	4
SOCI 101 Intro to Sociology	4
PSYC 101 Intro to Psychology	4

D. Humanities -- 16 hrs. from the following subject areas:

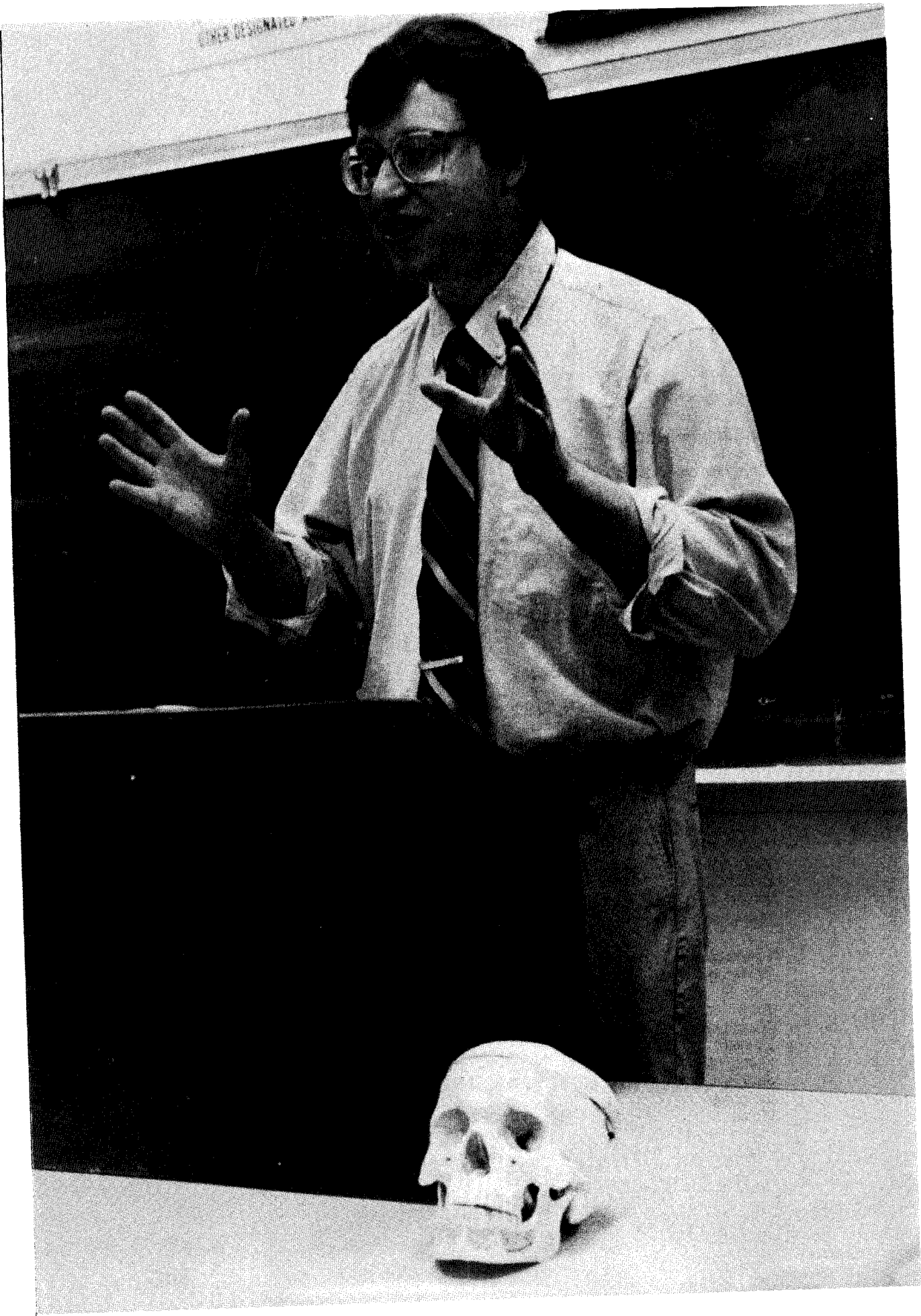
Art
Comparative Arts
English
Humanities
Journalism
Language
Music
Philosophy
Theater

F. Electives -- 4 hrs. from the following subject areas:

Arts and Humanities
Health
Natural Science
Social Science

II. Concentration Area -- 30 hrs.

Selected courses in an area of specialization chosen from the above list of Humanities subject areas complete the Associate of Arts.



Division of Social Science

Bachelor of Arts

Elementary Education,
History
Psychology
Sociology
Individualized Studies/Applied Social Science

Associate of Arts

Government
History
Pre-Law
Psychology
Social Work
Sociology

Bachelor of Arts in Social Sciences

The Social Science Division offers courses in the disciplines of anthropology, economics, geography, government, history, psychology and sociology. The major in social science is an interdisciplinary degree with a broader perspective than one provided by a single discipline. It can be combined with certification requirements for elementary education and is also recommended for students wishing to pursue graduate studies in psychology, sociology or history as well as for those interested in pre-law, those preparing for federal civil service examinations, or those who wish to enter the field of human services. It is also an excellent choice for those students seeking a general liberal arts education.

The major consists of a fundamental list of social science courses totalling 36 quarter hours. Six of these hours can be applied to the 50 general education hours required of all baccalaureate degree students. To complete the social science major, students must take 36 additional social science hours, 24 of which are to be at the upper division level. Students who are contemplating graduate studies must take the basic statistics course cross-listed as PSYC 150, SOCI 150 and MATH 150.

A student with prior approval from the department chair and with appropriate instructors' advising and approval, may choose an individualized studies program to serve his particular career interests and needs. Such an option might be appropriate for an applied social science concentration. It must consist of 36 quarter hours beyond the fundamental social science core, 24 of which selected hours must be at the upper division level.

Social Science Curriculum

The divisional major must include the following:

The 50 hours of general education integrated core requirements.

	The Fundamental Social Science Core	
SOSC 110S	Foundations of Social Science	4
PSYC 101	Introduction to Psychology	4
SOCI 101	Introduction to Sociology	4
GOVT 250	Introduction to Political Science	4
ECON 101 or 102	Choice of Micro or Macro Economics	4
HIST 150 or 151	Choice of American History	4
HIST 201, 202, 203	Choice of one Western Civilization Course	4
PSYC 273	Psychology of Human Adjustment	4
SOCI SCI 401	State of the World	4
General Education Community Service Course		2
Social Science 490	Research Project/Research Methods	4
Total Hours		42

Hours to be applied to general education core as well as to basic social science core		
Major Hours Fulfilled		6
		36

Students who are seeking certification in elementary education must take these additional social science courses:

PSYC 375	Psychology of Education	4
PSYC 310	Child Psychology	4
PSYC 316	Behavior Problems in Children	4
SOCI 310	Gender Socialization	4
ANTHRO 250, 360	Choice of Cultural Anthropology or Indians of North America	4
SOCI 205	Current Social Problems	4
GEOG 201	Cultural Geography	4
HIST 150, 151	One American History course not taken in basic social science core	4
HIST 201, 202, 203	One course in Western Civilization not taken in basic social science core	4
Total Hours		36

Other Social Science majors may choose courses in any of the social sciences represented to complete their program so long as they finish 36 additional hours including 24 at the upper division level.

Division of Math/Science

Bachelor of Science

Elementary Education
Life Science
Physical Science
Mathematics
Pre-Medical
Environmental Biology
Chemistry
Applied Mathematics

Associate of Science

Botany
Chemistry
Pre-Dentistry
Pre-Engineering
Pre-Forestry
Mathematics
Medical Technology
Pre-Medicine
Microbiology/Public Health
Pre-Optometry
Pre-Pharmacy
Physical Therapy
Physics
Pre-Veterinary
Zoology

Science and Math

Science and math graduates are in demand these days, both in elementary education and in the private sector. By choosing a Bachelor of Science with a major in Natural Science, you can prepare yourself for an exciting career in an area with many opportunities and a higher-than-average salary.

Shawnee State University's Bachelor of Science will introduce you to a wide range of basic science disciplines and allow you to concentrate on one specific area as well.

Industry is especially interested in graduates with a degree in science. Graduates are also in demand for positions as science laboratory technicians. If you enjoy doing experiments, then perhaps this is an area for you. Science laboratory technicians perform experiments and tests in either a lab or in the field, and often assist a scientist in process development or research.

Combined with elementary education certification, this degree can give you the flexibility needed in today's changing world. After graduation, you would be prepared to teach or to pursue any of several other career opportunities in the sciences or math.
If you already have an allied health associate degree, a bachelor's degree would give you the skills and credentials to move up in the health professions.

Following are three of the many options available in the Natural Science Division. If you are interested in an option not listed here, talk with your faculty adviser about the courses which you should take to meet your goals.

Engineering technology students who have not had high school algebra or who have a low ACT score in mathematics should take MATH 101 and/or MATH 105 to give them background for the required sequence of MATH 130, 131, and 132. Students who have had high school algebra and geometry and an average ACT score in mathematics should take MATH 130, 131, and 132. Students who have taken three or four years of high school mathematics, have an ACT score above the 75th percentile of the national norm, and score well on the mathematics placement test may have prerequisites for MATH 130, 131, 132, or 201 waived, with the approval of the math department and start at the level appropriate for them.

All students should see the Director of Developmental Education, Business Annex, to make arrangements to take a mathematics assessment test before enrolling in a mathematics class. Interpretation of test scores and decisions about course placement will be done in conjunction with math faculty. Prerequisites should be followed for courses in sequence.

Area of Concentration in Applied Mathematics

Option in Elementary Teaching Certification

Course No.		Class Hours	Lab Hours	Credit Hours
First Quarter				
ENGL 111S	Discourse and Composition	4	0	4
BIOL 110S	Life Sciences Core Course	4	0	4
EDUC 100	Teacher as Inquiring Professiona	2	0	2
HPER 110	Physical Education Elective	0	2	1
MATH 110S	Math in Society	4	0	4
		14	2	15
Second Quarter				
ENGL 112S	Composition and Research	4	0	4
MATH 120	Math for Elementary Teachers I	5	0	5
PHYS 110S	Man and the Physical Sciences	4	0	4
HPER 202	Personal and Community Health	4	0	4
		17	0	17
Third Quarter				
ENGL 115S	Composition and Literature	4	0	4
MATH 121	Math for Elementary Teachers II	5	0	5
EDUC 210	Teacher as Inquiring Professional II	1	0	1
SOCI 110S	Foundations of Social Science	4	0	4
BIOL	Biology Elective	2	3	3
		16	3	17
Fourth Quarter				
MATH 130	College Algebra I	4	0	4
EDUC 220	Social/Phy/Intellec Growth & Dev	3	0	3
ENGL 225S	Civilization and Literature I	4	0	4
BIOL 111	Principles of Biology	3	4	5
		14	4	16

Fifth Quarter

MATH 131	College Algebra II	4	0	4
EDUC 230	Instructional Media and Technology	2	0	2
ENGL 226S	Civilization and Literature II	4	0	4
GEOL 201	Physical Geology	3	2	4
SPCH 103	Public Speaking and Hum. Comm.	3	0	3
		17	2	18

Sixth Quarter

MATH 132	Trig and Analytic Geometry	4	0	4
EDUC 240	Foundations & Comp Epistemologies I	2	0	2
ENGL 227S	Civilization and Literature III	4	0	4
PSYC 173	Human Growth and Development	4	0	4
EDTP 101	Intro to Data Processing	3	2	3
		17	2	17

Seventh Quarter

MATH 150	Introduction to Statistics	4	0	4
EDUC 340	Found. & Comp Epistemologies II	1	0	1
HPER 270	Phys. Ed. for the Elem. Classroom	4	0	4
COMA 101	Survey of the Arts	4	0	4
PHYS/CHEM	Physical Science Elective	3	3	4
		16	3	17

Eighth Quarter

MATH	Mathematics Elective	4	0	4
EDUC 310	Teacher as Inquiring Professional III	3	0	3
COMA 102	Survey of the Arts	4	0	4
BIOL	Biology Elective	4	2	5
		15	2	16

Ninth Quarter

MATH	Mathematics Elective	4	0	4
EDUC 320	Interdisciplinary Teaching Methods I	7	0	7
COMA 103	Survey of the Arts	4	0	4
		15	0	15

Tenth Quarter

PHIL 320S	Ethics Public/Private Life	4	0	4
SOSC	Science Elective	3	3	4
EDUC 420	Interdisciplinary Teaching Methods II	7	0	7
EDUC 440	Found. & Comp Epistemologies III	2	0	2
		16	3	17

Eleventh Quarter

CORE 485S	Community Service	2	0	2
EDUC 450	Directed Teaching & Seminar	15	0	15
		17	0	17

Twelfth Quarter

CORE 490S	Senior Seminar	2	0	2
BIOL	Biology Elective	3	3	4
EDUC 410	Teacher as Inquiring Professional IV	2	0	2
EDUC 460	Senior Research	2	0	2
MATH	Mathematics Elective	4	0	4
		13	3	14

Area of Concentration in Life Sciences

Option in Pre-Medical Professions

Course No.	Course	Class Hours	Lab Hours	Credit Hours
	First Quarter			
ENGL 111S	Discourse and Composition	4	0	4
BIOL 110S	Life Science Core Course	3	2	4
PSCI 110S	Man and the Phys. Sciences	4	0	4
MATH 110S	Mathematics Core Course	4	0	4
		15	2	16

Second Quarter

ENGL 112S	Composition and Research	4	0	4
BIOL 151	Principles of Biology	3	4	5
SOCI 110S	Man and Society	4	0	4
MATH 201	Calculus I	4	0	4
		15	4	17

Third Quarter

ENGL 115S	Composition and Literature	4	0	4
MATH 202	Calculus II	4	0	4
BIOL 203	Principles of Animal Biology	4	4	6
EDPT 101	Intro. to Data Processing	3	2	3
		15	6	17

Fourth Quarter

ENGL 225S	Civilization and Literature I	4	0	4
BIOL 291	Principles of Anatomy	4	3	5
CHEM 141	General Chemistry I	3	3	4
GEOL 101	Rock, Minerals & Fossils	4	0	4
		15	6	17

Fifth Quarter

ENGL 226S	Civilization and Literature II	4	0	4
GEOL	Elective	4	0	4
BIOL 291	Principles of Physiology	3	4	5
CHEM 142	General Chemistry II	3	3	4
		14	7	17

Sixth Quarter

ENGL 227S	Civilization and Literature III	4	0	4
BIOL 235	Microbiology	4	3	5
CHEM 143	General Chemistry III	3	3	4
BIOL 351	Microbiology Lab	0	3	1
		11	9	14

Seventh Quarter

BIOL	Elective	4	3	5
CHEM 305	Organic Chemistry I	3	3	4
PHYS 201	Physics (Mechanics)	3	3	4
SOSC/HUMN	Elective	4	0	4
		14	9	17

Eighth Quarter

BIOL	Elective	4	3	5
CHEM 306	Organic Chemistry II	3	3	4
PHYS 202	Physics (Electricity)	3	3	4
SOSC/HUMN	Elective	4	0	4
		14	9	17

Ninth Quarter

BIOL	Elective	4	3	5
CHEM 307	Organic Chemistry III	3	3	4
PHYS 203	Physics (Heat, Light, Sound)	3	3	4
SOSC/HUMN	Elective	4	0	4
		14	9	17

Tenth Quarter

BIOL 411	Biochemistry	3	3	4
CORE 490S	Senior Seminar	4	0	4
BIOL 495	Senior Project	3	0	3
SOSC/HUMN	Elective	4	0	4
		14	3	15

Eleventh Quarter

BIOL 410	Advanced Human Anatomy	3	4	5
BIOL 495	Senior Project	4	0	4
SOSC/HUMN	Elective	4	0	4
		11	4	13

	Twelfth Quarter			
		3	3	4
BIOL	Biology Elective	2	0	2
CORE 485S	Community Service	4	0	4
SOSC/HUMN	Elective	4	0	4
PHIL 320S	Ethics Public/Private Life	13	3	14

Area of Concentration in Physical Science

Option in Chemistry with a Goal of Graduate Work

Course No.	Course	Class Hours	Lab Hours	Credit Hours
	First Quarter			
ENGL 111S	Discourse and Composition	4	0	4
PSCI 110S	Man and the Physical Sciences	4	0	4
MATH 110S	Mathematics Core Course	4	0	4
CHEM 141	General Chemistry I	3	3	4
		15	3	16
	Second Quarter			
ENGL 112S	Composition and Research	4	0	4
CHEM 142	General Chemistry II	3	3	4
BIOL 110S	Life Sciences Core Course	4	0	4
MATH 201	Calculus I	4	0	4
		15	3	16
	Third Quarter			
ENGL 115S	Composition and Literature	4	0	4
MATH 202	Calculus II	4	0	4
CHEM 143	General Chemistry III	3	3	4
SOCI 110S	Man and Society	4	0	4
		15	3	16

Fourth Quarter

CHEM 305	Organic Chemistry I	3	3	4
PHYS 201	Physics (Mechanics)	3	3	4
SOSC/HUMN	Elective	4	0	4
EDPT 101	Introduction to Data Processing	3	2	3
		15	6	17

Fifth Quarter

BIOL	Elective	4	3	5
CHEM 306	Organic Chemistry II	3	3	4
PHYS 202	Physics (Electricity)	3	3	4
SOSC/HUMN	Elective	4	0	4
		14	9	17

Sixth Quarter

CHEM 307	Organic Chemistry III	3	3	4
PHYS 203	Physics (Heat, Light, Sound)	3	3	4
SOSC/HUMN	Elective	4	0	4
GEOL	Elective	4	0	4
		14	6	16

Seventh Quarter

ENGL 225S	Civilization and Literature I	4	0	4
CHEM 411	Biochemistry	3	3	4
SPAN 111	Elementary Spanish I	4	0	4
GEOL	Elective	4	0	4
		15	3	16

Eighth Quarter

ENGL 226S	Civilization and Literature II	4	0	4
CHEM 223	Quantitative Analysis	3	6	5
SOSC/HUMN	Elective	4	0	4
SPAN 112	Elementary Spanish II	4	0	4
		15	6	17

	Ninth Quarter			
ENGL 227S	Civilization and Literature III	4	0	4
CHEM 325	Instrumental Analysis	3	6	5
SPAN 113	Elementary Spanish III	4	0	4
SOSC/HUMN	Elective	4	0	4
		15	6	17

	Tenth Quarter			
CHEM 495	Senior Project	3	0	3
CHEM 350	Polymer Chemistry	2	2	3
SPAN 211	Intermediate Spanish I	4	0	4
BIOL	Elective	3	3	4
		12	5	14

	Eleventh Quarter			
CORE 490S	Senior Seminar	4	0	4
CORE 485S	Community Service	2	0	2
CHEM	Elective	3	3	4
SPAN 212	Intermediate Spanish II	4	0	4
		13	3	14

	Twelfth Quarter			
CHEM 431	Introduction to Physical Chemistry	3	3	4
PHIL 320S	Ethics Public/Private Life	4	0	4
SPAN 213	Intermediate Spanish III	4	0	4
CHEM/PHYS	Elective	3	3	4
		14	6	16

Associate of Science

Shawnee State University offers an Associate of Science degree for those students desiring two years of general education with an emphasis in the sciences and mathematics.

Curriculum

I. Core Requirements

A. Communications -- 12 hrs.

ENG 111S Discourse and Composition 4
ENG 112S Composition and Research 4
ENG 115S Composition and Literature 4

B. Natural Sciences and Mathematics -- 24 hrs.

BIOL 110S Man and the Biological World 4
PSCI 110S Man and the Physical World 4
MATH 110S Man and Mathematics in Our World 4
One additional math course: Math 130 or above 4
Additional course work outside of the area of concentration 8

C. Humanities and Social Science -- 24 hrs.

SOSCI 110S Foundations in Social Science 4
ENG/HIST 225S Civilization and Literature 4
ENG/HIST 226S Civilization and Literature 4
ENG/HIST 227S Civilization and Literature 4

At least one course in Social Science from the following subject areas:
Anthropology
Economics
Education
Geography
Government
History
Physical Education
Psychology
Sociology

At least one course in Humanities from the following subject areas:
Arts
Comparative Arts
English
Humanities
Journalism
Literature
Music
Philosophy
Theater

II. Concentration Area -- 30 hrs.

Selected courses in an area of specialization chosen from one of the following subject areas complete the Associate of Science.

Life Sciences
Mathematics
Physical Sciences

CRADTAL

Center for Research and Development in Teaching and Learning

Elementary Education Certification

With Majors in
English/Humanities
Natural Science
Social Science

Associate of Art or Science

Secondary Education

Center for Research and Development in Teaching and Learning

Elementary Education Certification

The vision of teaching which guides the teacher education program at SSU is that of a reflective and inquiring professional. Assuming that teachers continue to develop over time cognitively, technically, and professionally, the program emphasizes dispositions of lifelong learning in addition to the acquisition of specific skills and knowledge.

From the freshman year on, the program's theme of practice-centered inquiry is developed. Integrating the breadth of the liberal arts and the depth of an academic major into the rigors of a professional development program, Shawnee's Center for Research & Development in Teaching & Learning prepares the entry level teacher to meet the dynamic responsibilities of contemporary schools.

The combination of the integrated general education core and an indepth academic major extends the knowledge of a discipline to an understanding of how one learns that discipline; the professional sequence then provides directions for developing instructional strategies and skills to teach the discipline in ways reflective of how children learn. The program provides a well articulated, hierarchical arrangement of field and clinical activities beginning with a set of activities designed to screen students for desired teacher qualities in their freshman year and culminating in student teaching experiences which assess their professional competence and potential.

During their junior and senior years, students will engage in the integrative study of core methods; specified programatic themes will provide interrelatedness not only within the blocks but between and among the other courses in the professional sequence. Foundational studies will occur throughout the program and, in fact, serve as a major clarifying and culminating activity. Throughout the program, the emphasis will be on structured inquiry and reflection.

Shawnee State University is committed to a curriculum that prepares all its graduates to communicate effectively, to think holistically and to respond ethically. The elementary education certification program will seek to lead students to a greater mastery of a teaching specialization, an increased understanding of the liberal arts perspective, a wider context within which to make good choices, a research-based professional education core, and a greater sense of the need to contribute their abilities to the present community through their service and to future communities through their students' lives.

Given a complex society where educational activities occur in a variety of settings, however, prospective teachers must be prepared to adapt to sequential careers. Professional understanding and skills will have to be transferred from one task to the next.

Through its policies and practices, The Center will model this professional evolutionary process by (1) celebrating the uniqueness, dignity and worth of each individual; (2) manifesting the relationship of educational practice to appropriate modes of inquiry, styles of learning, and findings of research; (3) promoting collaborative interactions among appropriate agencies; and (4) demonstrating the dynamic

balance of continuity and change in educational practice.

Elementary Education Curriculum

Students seeking certification in Elementary Education will have to fulfill the following requirements:
1. complete an academic major with an emphasis in Elementary Education;
2. pass the battery of qualifying examinations prior to admission into the certification program;
3. demonstrate teaching proficiency and professional competencies throughout the field/clinical experiences and student teaching; and
4. pass the Ohio State Board of Education's Teacher Examination.

Course and teaching experiences in area schools will be added to the schedule in the school year 1991-92 enabling students to be eligible for a certificate to teach in grades 1-6.

Health, Physical Education and Recreation

The Health, Physical Education and Recreation faculty offer a variety of courses designed to introduce students to psychomotor, cognitive, and affective domains of fitness, leisure, and pre-professional physical education.

Students will develop an understanding of the role physical activity plays in creating a healthy and enjoyable lifestyle. In addition, students will have the opportunity to develop skills related to teaching, coaching, and organization and administering physical education activities.

As Shawnee State University develops, programs which draw upon the resources of other academic areas and the Health Club will be explored.

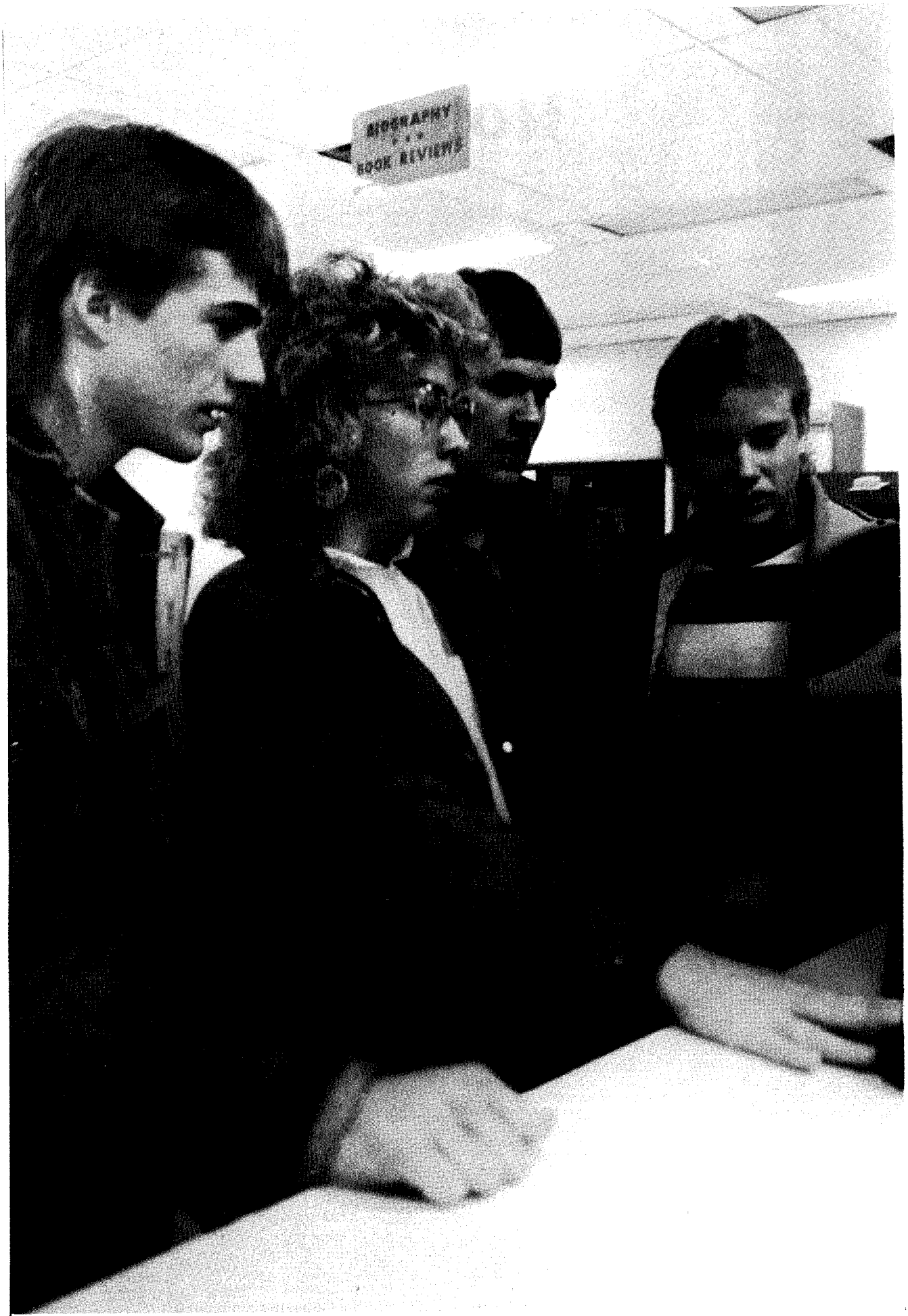
Elementary Education Certification Program

In addition to successfully completing an academic major and SSU's General Education Core, students seeking certification to teach grades 1-6 must complete the following courses with a grade of C or above:

Course No.	Course	Class Hours	Lab Hours	Credit Hours
	FRESHMAN			
EDUC 110	Teacher as Inquiring Professional I	2	20	2
EDUC 210	Teacher as Inquiring Professional II	1	15	1
MATH 120	Elementary Topics in Math I	5	0	5
MATH 121	Elementary Topics in Math II	5	0	5
SPCH 103	Public Speaking	3	0	3
		16	35	16

	SOPHOMORE			
EDUC 220	Social/Phy/Intellec Growth & Dev.	3	25	3
EDUC 230	Instructional Media & Technology	2	25	2
EDUC 240	Foundations & Comp. Epist. I	2	10	2
HPER 202	Personal & Community Health	4	10	4
HPER 270	Physical Ed. for the Elem. Classroom	4	20	4
		15	90	15
PSYC 351	Human Growth & Development	4	0	4
	JUNIOR			
EDUC 310	Teacher as Inquiring Professional III	3	15	3
EDUC 320	Interdisciplinary Teaching Methods I	7	8	7
EDUC 340	Foundations & Comp. Epist. II	1	5	1
ARTS 201	Art for the Elem. Classroom I			3
		11	28	14
ARTS 202	Art for the Elem. Classroom II			3
MUSI 160	Fundamentals of Music			3
MUSI 161	Music for the Classroom Teacher			3
	SENIOR			
EDUC 410	Teacher as Inquiring Professional IV	2	15	2
EDUC 420	Interdisciplinary Teaching Methods II	7	80	7
EDUC 440	Foundations & Comp. Epist. III	2	10	2
EDUC 450	Directed Teaching & Seminar	10	300	15
EDUC 460	Senior Research	2	0	2
		23	405	28
	Grand Totals			87

Notes


BIOGRAPHY
BOOK REVIEWS

Transfer/University Parallel Programs

Associate of Arts
Associate of Science
Education
Humanities and Fine Arts
Math and Science
Social Science

Transfer/University Parallel Programs

The various transfer curricula developed at Shawnee State University 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 a baccalaureate college or university. Students can pursue transfer programs in the fields of social and behavioral sciences, natural sciences, humanities, fine arts, teacher education, and several other 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 they wish to transfer and become familiar with its admission requirements and suggested freshmen and sophomore courses in their major field of interest.

2. Consult with the Director of Transfer Placement 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. Students assume responsibility for course selections necessary to satisfy the requirements of the senior institution to which they intend to transfer. Acceptance of credit from Shawnee State is at the discretion of the college or university to which the student will transfer.

Associate of Arts

Shawnee State University offers an Associate of Arts degree for those students wishing to complete a two-year program of general education with an emphasis in the arts or those wishing to transfer to another university for the last two years of a bachelor's degree.

Curriculum

I. Core Requirements

A. Composition -- 12 hrs.

ENG 111S Discourse and Composition	4
ENG 112S Composition and Research	4
ENG 115S Composition and Literature	4

B. Natural Sciences -- 12 hrs.

BIOL 110S Man and the Biological World	4
PSCI 110S Man and the Physical World	4
MATH 110S Mathematics in Our World	4

C. Social Science -- 16 hrs.

SOSCI 110S Foundations of Social Sciences	4

ENG/HIST 225S, 226S, or 227S 4
SOCI 101 Intro to Sociology 4
PSYC 101 Intro to Psychology 4

D. Humanities -- 16 hrs. from the following subject areas:

Art
Comparative Arts
English
Humanities
Journalism
Language
Music
Philosophy
Theater

F. Electives -- 4 hrs. from the following subject areas:

Arts and Humanities
Health
Natural Science
Social Science

II. Concentration Area -- 30 hrs.

Selected courses in an area of specialization chosen from the above list of Humanities subject areas complete the Associate of Arts.

Associate of Science

Shawnee State University offers an Associate of Science degree for those students desiring two years of general education with an emphasis in the sciences and mathematics.

Curriculum

I. Core Requirements

A. Communications -- 12 hrs.

ENG 111S Discourse and Composition 4
ENG 112S Composition and Research 4
ENG 115S Composition and Literature 4

B. Natural Sciences and Mathematics -- 24 hrs.

BIOL 110S Man and the Biological World 4
PSCI 110S Man and the Physical World 4
MATH 110S Man and Mathematics in Our World 4
One additional math course: Math 130 or above 4
Additional course work outside of the area of concentration 8

C. Humanities and Social Science -- 24 hrs.

SOSCI 110S Foundations in Social Science 4
ENG/HIST 225S Civilization and Literature 4
ENG/HIST 226S Civilization and Literature 4
ENG/HIST 227S Civilization and Literature 4

At least one course in Social Science from the following subject areas:
Anthropology
Economics
Education
Geography
Government
History
Physical Education
Psychology
Sociology

At least one course in Humanities from the following subject areas:
Arts
Comparative Arts
English
Humanities
Journalism
Literature
Music
Philosophy
Theater

II. Concentration Area -- 30 hrs.

Selected courses in an area of specialization chosen from one of the following subject areas complete the Associate of Science.

Life Sciences
Mathematics
Physical Sciences

Education Concentration Areas

Special Education

Secondary Education:

Biology--General Sciences
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

Special Education

Freshman	*Hours*
English (111S, 112S, 115S)	8
Psychology 101	4
Social Sciences	8
Natural Sciences--must include lab	8
Humanities	8
Physical Education	1
Electives (MATH 150, PSYC 273)	8
TOTAL	**45**

Sophomore	
Speech 103	3
HPER 202 (Per., and Comm. Health)	4
HPER 250 (Recreational Leadership)	3
Art 201, 202 (Art for the Elem. School I, II)	6
Physical Education	1
Math (MATH 120 or higher)	5
Music 160,161	6
PYSC 375	5
Electives	12
TOTAL	**45**

Secondary Education Biology/General Science

Freshman	
English (111S, 112S, 115S)	8
Chemistry 141, 142, 143	12
Biology 111, 112, 113	16
*Math 201, 202	10
Physical Education	2
TOTAL	**48**

Sophomore	
Speech 103	3
Physics 201, 202, 203	12
Humanities	12
Social Sciences	12
Psychology 375	5
Electives (Sciences)	4
TOTAL	**48**

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

Secondary Education Chemistry/General Science

Freshman	
English (111S, 112S, 115S)	8
Chemistry 141, 142, 143	12
*Math 201, 202, 203	15
Humanities	8
Social Sciences	4
Physical Education	1
TOTAL	**48**

Sophomore	
Organic Chemistry I, II, III	12

Physics 201, 202, 203	12
Social Sciences Elective	4
Psychology 375 (Educ. Psyc.)	5
Chemistry 223	10
Physical Education	1
Speech 103	3
TOTAL	**47**

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

Secondary Education English Emphasis

Freshman	
English (111S, 112S, 115S)	8
Natural Sciences/Math	12
Social Sciences	12
Humanities	12
Physical Education	1
TOTAL	**45**
Sophomore	
Psychology 375	5
Speech 103	3
Speech 105 (Into. to Mass. Communications)	4
Speech 220 or Thar. 220 (Oral Inter. of Lit)	4
Speech 215 (Discussion)	4
Physical Education	1
English Fiction, Poetry, or Drama	4
English 204, 205, 206	4
English Literature	4
Electives (English)	4
English (General)	8
TOTAL	**45**

Secondary Education Communications/Speech Emphasis

Freshman	
English 111S, 112S, 115S	8
Speech 103	3
Natural Sciences/Math	12
Social Sciences	12
Humanities	12
TOTAL	**47**
Sophomore	
Psychology 375 (Educ. Psyc)	5
Theater. (Elective)	3
Journalism 231 (News Reporting)	4
English Poetry, Fiction or Drama	4
Physical Education	2
TOTAL	**18**
Speech 105 (Intro. to Mass. Communications)	4
Speech 215 (Group Discussion)	4
Speech 220 or Thar. 220 (Oral Interp.)	4
Electives	20
TOTAL	32
TOTAL	**50**

Secondary Education English/Comprehensive

Freshman	
English 111S, 112S, 115S	8
Speech 103	3
Natural Sciences/Math	12
Social Sciences	8
Humanities	8
Physical Education	2
Electives	4
TOTAL	**45**
Sophomore	
Social Science	4
Humanities	4
Psychology 375 (Educ. Psychology)	5
English Poetry, Fiction or Drama	4
English 204, 205, 206	8
English Literature	8
Electives (Must include 1 English course above freshman level)	12
TOTAL	**45**

Secondary Education Communications/Speech Emphasis

Freshman	
Speech 103	6

Speech 105 (Intro. to Mass. Comm.)	4
English 111S, 112S, 115S	8
Natural Sciences/Math	12
Psychology 101	4
Humanities	12
TOTAL	**46**

Sophomore

Psychology 375 (Educ. Psyc.)	5
Social Sciences	8
Physical Education	2
Thar. 220 or Speech 220 (Oral Inter.)	4
Speech 215 (Group Discussion)	4
Electives (Thar. 215, Thar. 100) Minimum hrs.	5
Electives (General)	17
TOTAL	**45**

Secondary Education General Speech

Theater Emphasis

Freshman

Speech 103	6
English 111S, 112S, 115S	8
Natural Sciences/Math	12
Social Sciences	8
Humanities	12
TOTAL	**46**

Sophomore

Psychology 375 (Educ. Psyc.)	5
Social Sciences	4
Physical Education	8
Thar. (Electives)	27
Electives	6
TOTAL	**44**

Secondary Education/Health

Freshman

English 111S, 112S, 115S	4
Speech 103	3
HPER 261 (Intro. to P.E. & Health)	2
Psychology 101	4
Sociology 101	4
Biology 151	5
Math (1 course) (Math 120 or higher)	5
Comparative Arts and/or Phiolsophy	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	4
TOTAL	**49-50**

Sophomore

English (111S, 112S, 115S)	4
Psychology 375 (Educ. Psyc.)	5
Comparative Arts and/or Philosophy	4
Biology 290, 291 (Anatomy & Physiology)	10
HPER 202 (Personal & Community Health)	4
HPER 110 (3 Activity Classes)	3
HPER 204 (Drugs, Alcohol and Tobacco)	4
HPER Electives	11
TOTAL	**45**

Secondary Education Physical Education

Freshman

English 111S, 112S, 115S	4
Speech 103	3
HPER 261 (Intro. to P.E. & Health)	2
Psychology 101	4
Social Science (Elective)	4
Biology 151	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	4
TOTAL	**49-50**

Sophomore

English (111S, 112S, 115S)	4
Psychology 375 (Educ. Psyc.)	5
Comparative Arts and/or Philosophy	4
Biology 290, 291 (Anatomy & Physiology)	10
HPER 202 (Personal & 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 240 Athletic Officiating Basketball 241 Athletic Officiating Baseball	6
HPER 281 (Adminstration of Intramural Athletics	4
TOTAL	**48**

Secondary Education Physical/General Science

Freshman

English 111S, 112S, 115S	8
Chemistry 141, 142, 143	12
*Math 201, 202, 203	15
Humanities	4
Social Sciences	4
Physical Education	2
Speech 103	3
TOTAL	**48**

Sophomore

Physics 201, 202, 203	12
Humanities	8
Psychology 375 (Educ. Psyc.)	5
Social Sciences	8
Electives (Sciences)	12
TOTAL	**45**

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

Secondary Education Social Studies

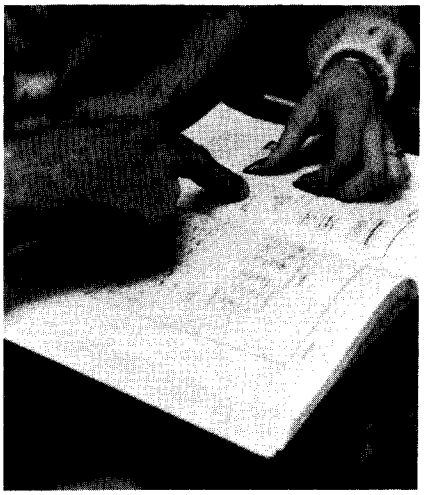
Freshman

English 111S, 112S, 115S	8
Laboratory Sciences (two qtr. sequence)	8-10
Mathematics (MATH 120 or higher)	4-5
Humanities	12
American History	12
Psychology 101	4
TOTAL	**48-51**

Sophomore

History 201, 202, 203	12
Government 101 and 102	8
Humanities elective (200 level)	8
Geography 101	4
Psychology 375 (Educ. Psyc.)	5
Sociology 101	4
Anthropology 201	5
Speech 103	3
Physical Education	2
TOTAL	**51**

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



Humanities and Fine Arts Areas

Art
Comparative Arts
Communications
English
Journalism
Theater

Pre-Art Major

Freshman	*Hours*
English 111S, 112S, 115S	8
Natural Sciences	12
Social Sciences	12
Art 101, 102, 103 (Studio Foundations)	15
Physical Educaiton	1
TOTAL	**48**

Sophomore	
Speech 103	3
Art 221, 222, 223 (Painting I, II, III) and/or Art 231, 232, 233 (Ceramics I, II, III)	12
Art 271, 272, 273 (Life Drawing I, II, III)	12
Comparative Arts (101, 102, 103)	9
Art Electives	8
Physical Education	1
TOTAL	**45**

Comparative Arts Major

Freshman	
Speech 103	3
English (111S, 112S, 115S)	8
Natural Sciences	12
Social Sciences	12
Comparative Arts 101, 102, 103	9
Physical Education	2
TOTAL	**46**

Sophomore	
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**

Please Note: 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-Art Major: Graphic Design Emphasis

Freshman	
English 111S, 112S, 115S	8
Natural Sciences	12
Social Sciences	12
Art 101, 102, 103 (Studio Foundations)	15
Art 104 (Terminology, Tools & Materials for the Graphic Designer	4
TOTAL	**41**

Sophomore	
Speech 103	3
Art 251	4
Art 252	4
Art 253	4
Art 271, 272, 273 (Life Drawing I & II)	8
Art 221, 222, 223 (Painting I, II & III)	12
Art 205 Graphic Design Production Techniques	4
Art 215 Photography for the Graphic Designer	4

Comparative Arts 101, 102, 103	9
TOTAL	**52**

Pre-Communications Major

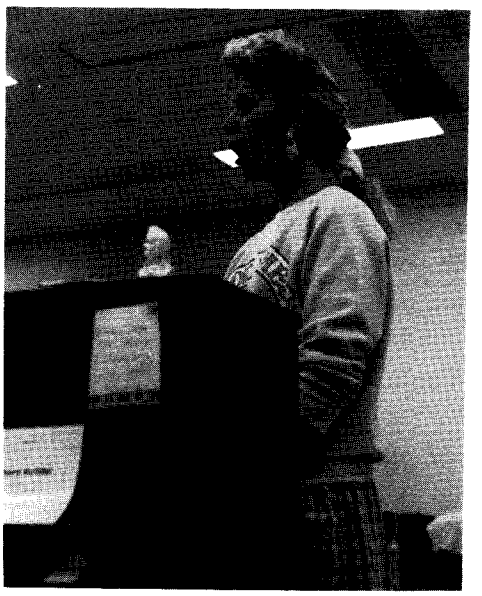
Freshman	
English 111S, 112S, 115S	8
Natural Sciences	12
Social Science	12
Humanities	12
Physical Education	2
TOTAL	**46**
Sophomore	
Speech 103	3
Jour. 105, or Speech 105 (Intro. to Mass Comm.)	4
Speech 215 (Group Discussion)	4
Thar. 210 or 215 (Acting, or Sp. 220/Thar. 220 (Oral Interp.)	3
Psychology 101	4
Electives	27
TOTAL	**45**

Pre-Journalism Major

Freshman	
English 111S, 112S, 115S	8
Government 102	4
Natural Sciences	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	
Speech 103	3
Economics 101, 102	8
History 201, 202, 203	12
Psychology 101	4
Journalism 231 (News Reporting)	4
Physical Education	1
Electives (Social Sciences)	13
TOTAL	**45**

Pre-Theater Major

Freshman	
English (111S, 112S, 115S)	8
Natural Sciences	12
Social Sciences	12
Humanities	12
Physical Education	1
TOTAL	**45**
Sophomore	
Speech 103	3
3 English Classes 200 level or above	12
Thar. Electives	29
TOTAL	**45**



Mathematics and Science Areas

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

Pre-Botany Major

Freshman	*Hours*
English 111S, 112S, 115S	8
Speech 103	3
Chemistry 141, 142, 143	12
Biology 151 and up	16
*Math 201, 202	10
Physical Education	2
TOTAL	**51**

Sophomore	
Chemistry 305, 306, 307	12
Biology 303	5
Biology 340	5
Biology 302	5
Social Sciences	12
Humanities	12
TOTAL	**51**

*MATH 130 sequences may be elected in preparation for calculus.

Pre-Chemistry Major

Freshman	
English 111S, 112S, 115S	8
Speech 103	3
Chemistry 141, 142, 143	12
*Math 201, 202, 203	15
Humanities Elective	4
Social Sciences	4
Physical Education	1
TOTAL	**47**

Sophomore	
Chemistry 305, 306, 307	12
Physics 201, 202, 203	12
Humanities Elective	8
Social Sciences	8
Chemistry 325	4
Physical Education	1
TOTAL	**51**

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

Pre-Dentistry Major

Freshman	
English 111S, 112S, 115S	8
Speech 103	3
Chemistry 141, 142, 143	12
*Math 201, 202	10
Biology 151	5
Biology 340	5
Physical Education	2
TOTAL	**45**

Sophomore	
Chemistry 223, 305, 306, 307	17
Physics 201, 202, 203	12
Social Sciences	12
Humanities Elective	12
TOTAL	**53**

*MATh 130 sequence may be elected in preparation ffor calculus.

Pre-Engineering Major

Freshman

A student may obtain one full year in the various areas of Engineering. The freshman

schedule should be built around the freshman curriculum of the college or university to which you plan to transfer.

Pre-Forestry Major

Freshman	
English 111S, 112S, 115S	8
Speech 103	3
Chemistry 141, 142, 143	12
*Math 201, 202	10
Biology 151 and up	16
Physical Education	2
TOTAL	**51**

Sophomore
See Director of Transfer Placement for additional information regarding the Forestry School Transfer.

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

Pre-Medical Technology Major

Freshman	
Chemistry 141, 142, 143	12
*Math 201, 202	10
Speech 103	3
Biology 151	11
English (111S, 112S, 115S)	8
Physical Education	2
TOTAL	**46**

Sophomore	
Chemistry 305, 306, 307	12
Chemistry 223, 325	10
General Genetics (Biology 340)	5
Social Sciences	12
Humanities Elective	12
TOTAL	**51**

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

Pre-Microbiology or Public Health and Sanitation Major

Freshman	
English 111S, 112S, 115S	8
Speech 103	3
Chemistry 141, 142, 143	12
Biology 151 and up	16
*Math 201	5
Biology 340	5
Social Science	4
TOTAL	**54**

Sophomore	
Chemistry 305, 306, 307	17
Physics 201, 202, 203	12
Social Sciences	8
Humanities Elective	12
Physical Education	2
TOTAL	**51**

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

Pre-Optometry Major

Freshman	
English 111S, 112S, 115S	8
Speech 103	3
Chemistry 141, 142, 143	12
Biology 151 and up	11
*Math 201, 202	10
Psychology 101	4
Physical Education	2
TOTAL	**50**

Sophomore	
Chemistry 305, 306, 307	17
Physics 201, 202, 203	12
Social Sciences	12
Humanities Elective	12
TOTAL	**53**

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

Pre-Pharmacy Major

Freshman	
English 111S, 112S, 115S	8

Speech 103	3
Chemistry 141, 142, 143	12
Biology 151 and up	11
*Math 201, 202	10
Economics 101	4
TOTAL	**48**
Sophomore	
Chemistry 223, 305, 306, 307	17
Physics 201, 202, 203	12
Social Sciences	8
Physical Education	2
Humanities	12
TOTAL	**51**

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

Pre-Physical Therapy Major

Freshman	
English 111S, 112S, 115S	8
Chemistry 141, 142, 143	12
Biology 151 and up	11
Biology 340	5
Physical Education 202	4
Psychology 173	5
Math 150 or Psychology 361	5
TOTAL	**50**
Sophomore	
Biology 290B, 291B (Anatomy &Physiology I, II)	10
Speech 103	3
Sociology 101	4
Physics 201, 202	8
Psychology 375	5
Psychology 400	5
Humanities Elective	12
Social Sciences	4
TOTAL	**51**

Pre-Veterinary Major

Freshman	
English 111S, 112S, 115S	8
Speech 103	3
*Math 201, 202	10
Chemistry 141, 142, 143	12
Biology 151 and up	11
Biology 225	5
Physical Education	2
TOTAL	**51**
Sophomore	
Chemistry 223, 305, 306, 307	17
Physics 201, 202, 203	12
Social Sciences	12
Humanities	12
TOTAL	**53**

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

Recreation Studies

Freshman	
English 111S, 112S, 115S	8
Speech 103	3
Math 130	4
Biology 151, 271, 330	12
Social Science	4
HPER 200 (Intro to Recreation)	4
HPER 227 (First Aid)	4
HPER 110 (3 Activity Classes)	3
Humanities	8
TOTAL	**50**
Sophomore	
HPER 26- (Outdoor Recreation)	4
HPER 237 (Orientation to Recreation Employment)	1
HPER 250 (Recreation Leadership)	4
HPER Electives	10
HPER 110 (3 Activity Classes)	3
Biology Electives	10
Social Science	8
Humanities	4
TOTAL	**44**

Pre-Zoology Major

Freshman	
English 111S, 112S, 115S	8

Speech 103	3
Chemistry 141, 142, 143	12
Biology 151 and up	16
*Math 201, 202	10
Physical Education	2
Social Science	4
TOTAL	**55**

Sophomore

Chemistry 223, 305, 306, 307	17
Physics 201, 202, 203	12
Social Sciences	8
Biology 225-Genetics	5
Humanities Elective	12
TOTAL	**54**

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

Social Science Areas

Business Administration
Government
History
Pre-Law
Psychology
Social Work
Sociology

Government Major

Freshman

English 111S, 112S, 115S	8
Natural Science	12
Physical Education	2
Language or Humanities/Arts 200 level	12
Government 101, 102	8
Philosophy (102 or 103)	4
TOTAL	**46**

Sophomore

Speech 103	3
History (111, 112, 113)	12
Government courses Govt. 350 (Urban Politics) Govt. 203 (Pol. in the American States)	15
Electives	12
Math 150 (Principles of Stat.)	4
TOTAL	**46**

*Total 20 hours needed in Humanities.

Pre-History Major

Freshman

English 111S, 112S, 115S	8
Philosophy 101 (Fundamentals)	4
History (United States)	12
Foeign Language or Humanities/Arts	12
Natural Science (2 courses in the same area)	8
Physical Education	2
TOTAL	**46**

Sophomore

Speech 103	3
History 201, 202, 203 (West Civ)	12
Philosophy 102 (Logic)	4
Humanities	4
Natural Sciences	4
History Electives	6
Electives	12
TOTAL	**45**

Pre-Psychology Major

Freshman

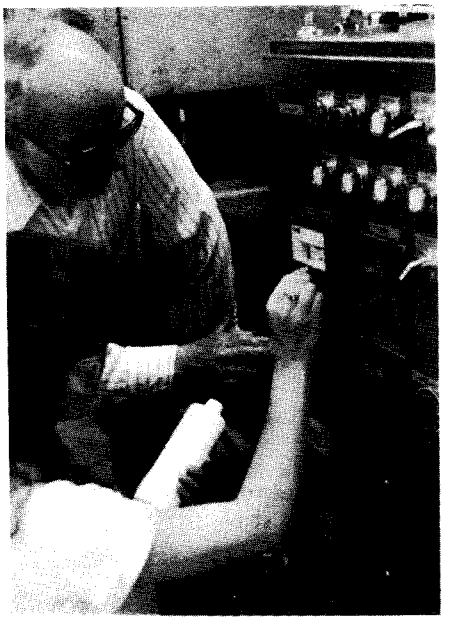
English 111S, 112S, 115S	8
Humanities	8
Natural Sciences	12
Language or Humanities /Arts	12
Psychology 101	4
Math 150 (Principles of Stat.)	4
TOTAL	**48**

Pre-Social Work Major

Freshman

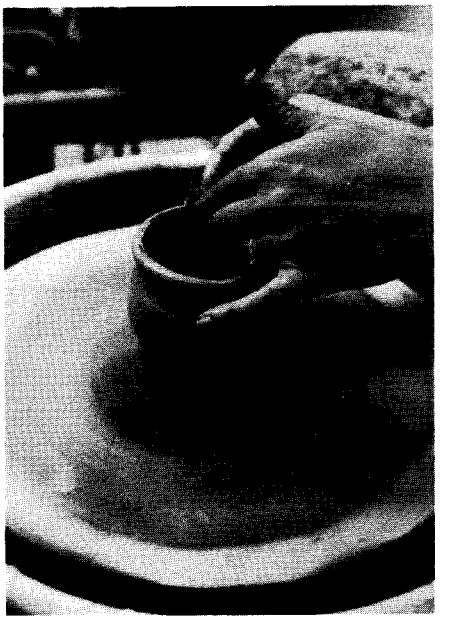
English 111S, 112S, 115S	8

Psychology 101	4
Psychology 310 (Child Psychology)	4
Sociology 101	4
Natural Sciences	12
[1]Social Sciences	4
Philosophy 103 (Moral Philosophy)	4
Physical Education	2
Electives	4
TOTAL	**46**



Sophomore

Speech 103	3
Math 150 (Principles of Stat.)	4
Economics 101, 102	8
Social Sciences	8
Sociology 202 (Intro. to Family Sociology)	4
Humanities	8
Electives (Humanities)	9-10
TOTAL	**45**



Pre-Sociology Major

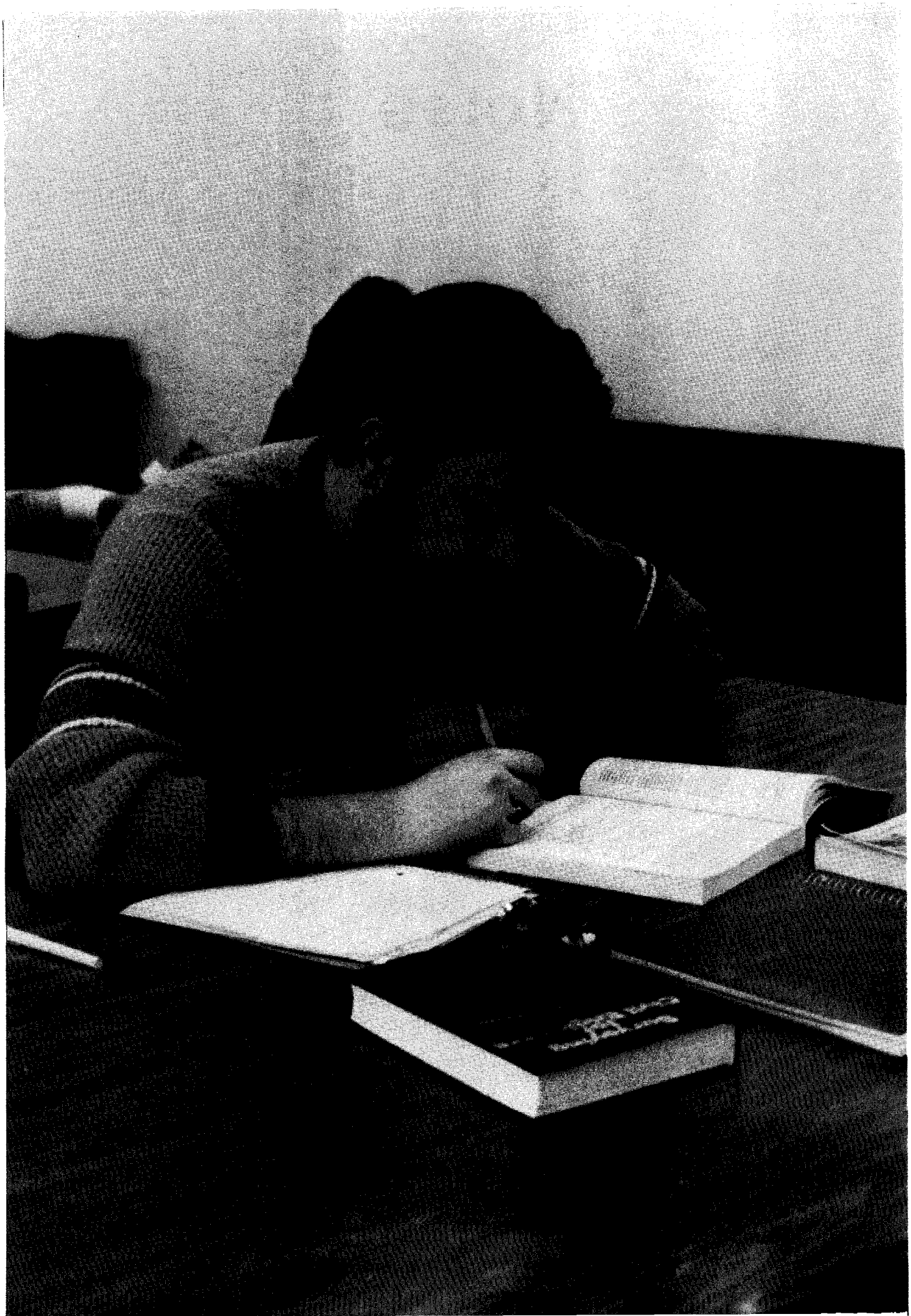
Freshman

English 111S, 112S, 115S	8
Humanities	8
Natural Sciences	12
Language or Humanities/ Arts	12
Sociology 101	4
Physical Education	2
TOTAL	**46**

Sophomore

Speech 103	3
Humanities	4
Math 150 (Principles of Stat.)	4
Psychology 101	4
Anthropology 101	5
Sociology Electives	13
Electives	12
TOTAL	**45**

Notes



Other Academic Services at Shawnee State University

Continuing Education and
the Center for Business and Industry
Developmental Education
Learning Center
Library
Military Science

Continuing Education and the Center for Business and Industry

Shawnee State University is committed to serve the educational needs of learners of all ages. Through the Office of Continuing Education the doors of educational opportunity are open to more than 5000 lifelong learners annually. An array of non-credit instructional programs are geared to meet a wide range of interests, abilities, and objectives.

Continuing Education strives to meet a variety of educational needs of its public, both on and off campus. Continuing Education works with business, industry, social agencies, and organizations to develop quality programs to help individuals pursue career endeavors and satisfy professional training needs. Each year the interest of youth is broadened through sport camps and academic camps for the talented and gifted. In an effort to serve special interest groups, the Office of Continuing Education has actively pursued grants funding and developed programs for displaced workers, small business owners, economically disadvantaged youth, and senior citizens.

For further information about course schedules or program development, contact the Office of Continuing Education.

Center for Business and Industry

The rapid changes in technology and the resulting reorganization that is taking place in today's businesses and industries demand that companies upgrade the skills of their employees to meet the challenges of tomorrow.

The increased importance of human resources necessitates that Shawnee State University increase its responsiveness to non-traditional training and professional development needs and programs.

The Center for Business and Industry's programs include short-term and non-traditional credit courses, noncredit continuing education and professional development training, specialized on-site training packages, and assessment of specific training needs. The Center for Business and Industry is also responsible for general coordination of all activities of the university that impact business and industry, including the coordination of the Ohio Technology Transfer Organization (OTTO) program.

Developmental Education

If a student lacks college-level academic skills in basic English, mathematics, and science, he or she may choose or be advised to take developmental courses in these areas. Furthermore, in instances when placement test outcomes indicate an explicit need for college preparatory course work, students will be required to take certain developmental courses before registering for some university courses.

Developmental courses provide underprepared students an opportunity to gain the skills and knowledge necessary to attempt college-level course work. They are intended for students who have had no background in a subject (e.g., biology and physics), inadequate preparation in a subject (e.g., English, mathematics, reading), or have been away from school and need review.

ENGL 097 Reading Development 1 (4)

ENGL 098 Reading Development 2 (4)

Developmental reading courses generally aim to improve students' reading comprehension and critical interpretation of college-level material. Areas of concentration include reading speed, art and skills of efficient reading, basic reading skills (e.g., phonics, sentence sense, and morphemes), vocabulary building, and sentence and paragraph analysis. If placement test outcomes indicate a need for reading development, a student's academic advisor can indicate for which reading course he or she should register. Students who voluntarily choose to take a reading development course may receive assistance in selecting a reading course in the Learning Center.

BIOL 099 Fundamentals of Biology (4)

This course is designed for students with little or no background in the biological sciences. It is especially popular among students planning to enter one of the allied health programs. Topics covered in this course include cell theory, genetics, and the classification of living organisms.

(CHEMISTRY--Students who desire a basic course in chemistry should refer to CHEM 101.)

ENGL 100 College Reading and Learning Strategies (4)

The learning strategies course provides students with techniques that make studying easier and more efficient. The ultimate goals of this course are to help students learn more and get better grades. Topics in the course include the following: notetaking, learning from textbooks, managing time, understanding visual materials, researching and writing papers, preparing for tests, memory techniques, improving reading skills, understanding emotional and physical needs, and using learning resources.

ENGL 095 Basic Writing 1: Mechanics (4)

The Writing Mechanics course provides intensive practice with the basics of written expression: grammar, punctuation, usage, spelling, and sentence structure. This course also focuses upon basic summary and paragraph writing.

ENGL 099 Basic Writing 2: Paragraphs and Essays (4)

This course provides practice in the writing and revising of paragraphs and short essays. Standard rhetorical patterns for paragraphs and essays will be required with an emphasis on the correct use of standard English.

MATH 099 Fundamentals of Math (4)

This course provides students with the necessary background in mathematics to take college-level math courses. Basic mathematical concepts and functions covered in this course include addition, subtraction, division, and multiplication of whole numbers, fractions, decimals, and percentages. Students are also introduced to basic algebraic concepts.

PHYS 099 Fundamentals of Physics (4)

This course is intended for special programs and is not considered a prerequisite for the college entry-level physics courses. Students desiring a basic course in physics should refer to PHYS 201.
Note that developmental courses do not apply toward a degree.

Learning Center

The Learning Center, located in the Business Annex Building, is best described as a help center. Students usually seek the assistance of Learning Center personnel, programs, and eqipment when they need extra help preparing for class. Toward meeting its goal of helping students prepare, the Center staff offers a variety of services to Shawnee State students.

One of the most popular Learning Center programs is the Tutoring Program. Students needing help understanding course concepts and completing course assignments may request the assistance of a peer tutor, another student who has proven competent in a subject and has volunteered to help other students taking a course in the subject.

The Learning Center provides many types of audio-visual instructional devices for use by individual students.These include slide projectors, videotape recorder/players, audiotape recorder/players, and filmstrip projectors. Also very popular with Shawnee students are the Learning Center microcomputers. Stuents use these microcomputers in conjunction with the instructional software available to them in the Center. They also use them for programming and word processing.

Many of the university's learning assistance programs have their home in the Learning Center. These include the Developmental Education Program (courses numbered below 101), Students Academic Assessment Services, the GED Program, and Shawnee BASICS (Basic Adult Skills in a College Setting).

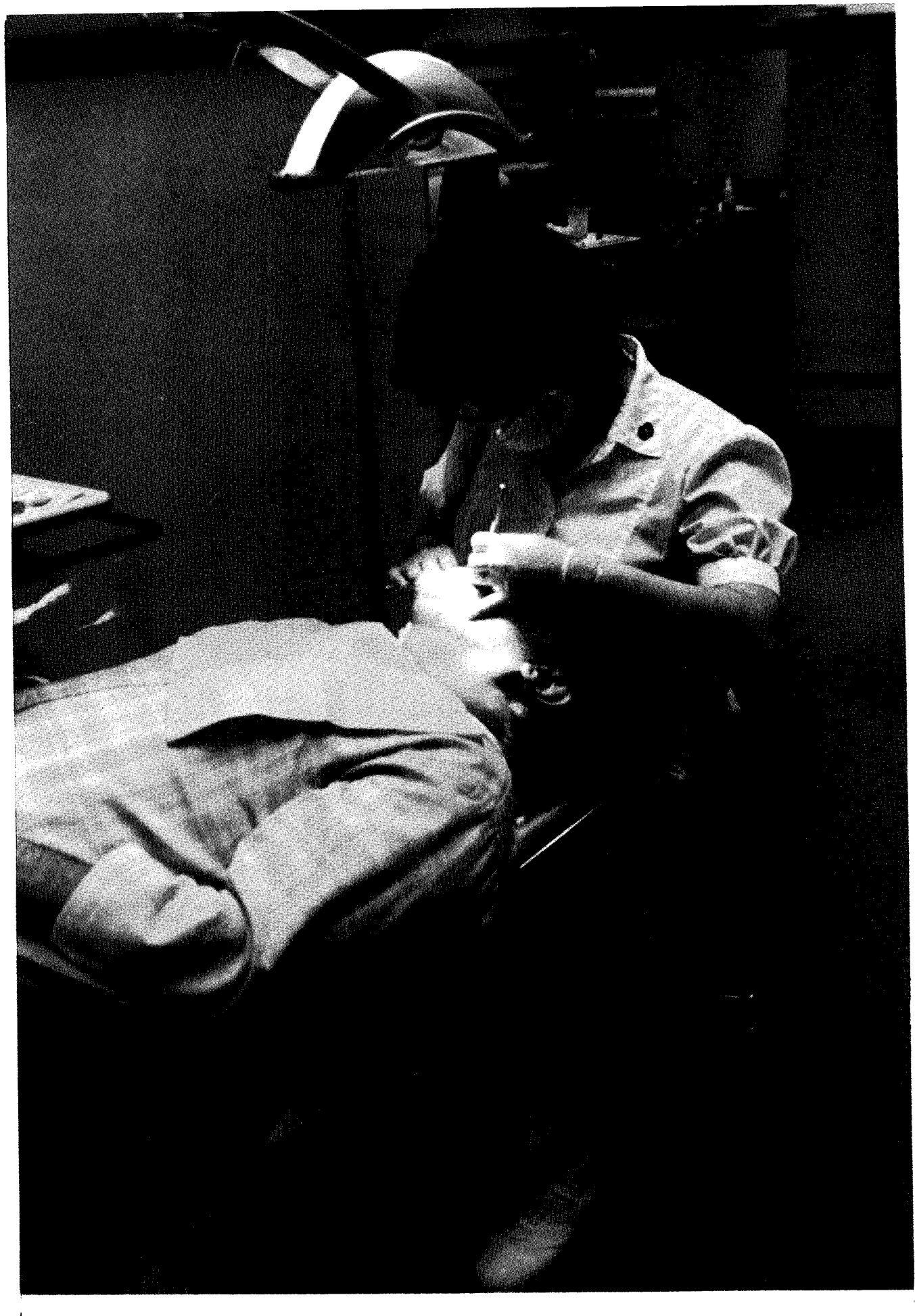
Library

Our library currently has more than 70,000 books and 500 different periodicals, will seat more than 200 students--and is continuing to grow. In 1990, a new library/media building will open, with 600 study stations, complete media production and distribution facilities, and room for 140,000 volumes. The new library will include media viewing equipment, microcomputers, and lecture facilities including one 300 seat hall. In addition, the card catalog will be replaced by a computerized system which will allow access to the collection anywhere on campus.

Military Science

U.S. Army Reserve Officers' Training Corps
The Shawnee State University Reserve Officers' Training Corps Program is open to both men and women. The objective of this program is to produce leaders who are capable of serving as officers in the U.S. Army active and reserve forces. It provides a basic military education which, in conjuction with other college disciplines, develops those attributes essential for successful executive performance. Individuals who successfully complete all of the training will be commissioned in the United States Army, the United States Army Reserve, or the National Guard.

Notes



Description of Courses at Shawnee State University

Accounting Courses

*ACCT 101 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 102 Accounting II (4)

Prerequisite: ACCT 101
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 103 Accounting III (4)

Prerequisite: ACCT 102
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 104 Tax Accounting (4)

Prerequisite: ACCT 102
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 110 Payroll Records/Accounting (3)

Prerequisite: ACCT 101
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 161 Accounting with D.P. Application I (4)

Prerequisite: ACCT 101
Application of basic accounting procedures to the microcomputer. Emphasizes applications to the IBM microcomputer system.

ACCT 201 Financial Accounting Principles (4)

Prerequisite: ECON 101 and 102 and Sophomore standing.
An introduction to the concepts and principles underlying financial accounting theory. The study will include the accounting equation and its application to the business entity. Procedures and concepts in accumulating and reporting financial information will be developed. (Not open to students who have completed ACCT 101 and 102.)

ACCT 210 Managerial Accounting (4)

Prerequisite: ACCT 201
A study of the financial information needs of management for decision making. Includes the development of financial statements for manufacturing entities, the study of the components of unit cost,

variable costing, and cost-volume-profit analysis.

ACCT 211 Intermediate Accounting I (4)

Prerequisite: ACCT 103
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 212 Intermediate Accounting II (4)

Prerequisite: ACCT 211
Continuation of Intermediate Accounting I with emphasis on the balance sheet sections dealing with investments, fixed assets and liabilities.

*ACCT 213 Intermediate Accounting III (4)

Prerequisite: ACCT 212
Continuation of Intermediate Accounting II with detailed study of the owner's equity section of the balance sheet and the financial statements presentation and analysis.

*ACCT 221 Cost Accounting I (4)

Prerequisite: ACCT 103
Introduction to cost accounting systems and methods. Cost concepts, classifications, and measurements techniques in relation to their importance in determination, planning and control. Job order and process cost accounting methods.

*ACCT 222 Cost Accounting II (4)

Prerequisite: ACCT 221
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 230 Accounting Projects I (3)

Prerequisite: 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 231 Governmental Accounting (4)

Prerequisite: ACCT 211
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 241 Auditing (3)

Prerequisite: ACCT 212 and 222
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 261 Accounting with D.P. Applications II (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.

ACCT 330 Industrial Accounting (4)

Prerequisite: ACCT 210 or ACCT 103 and permission.
Study of the use of data by management in planning and controlling business operations. Emphasis on the solution of problems confronting management by the use of accounting information in analytical form. Not recommended for Associate Degree accounting majors.

ACCT 360 Systems Accounting (4)

Prerequisite: AISM 101 and ACCT 210 or ACCT 103 and permission.
A course in accounting information systems principles and applications. The application of accounting principles to computerized environment including transaction processing and internal controls, revenue and expenditure cycle applications, file and data management concepts, software systems, and computer security.

Anthropology Courses

ANTH 201 Introduction to Anthropology (4)

An introduction to the biological nature of humans. The roots of primate and hominid evolution, speciation, cultural beginnings and the future evolution of humans are examined.

ANTH 250 Principles of Cultural Anthropology (4)

How humans have adapted as foragers, hunters, farmers, and industrialists. The diversities of pre-literate and living human societies, social structure, kinship, religion, ecology are examined in cross-cultural settings.

ANTH 270 Social Anthropology (4)

Comparative study of pre-literate and modern societies in terms of social structure analyzing sex, age, kinship, ranking, and voluntary associations.

ANTH 295A Special Topics (1-4)

Prerequisite: ANTH 101, 250
Individual or small group study under supervision of instructor on topics not otherwise available to students.

ANTH 350 Archaeological Field Methods (4)

Prerequisite: Consent of instructor
Introduction to techniques and methods of archaeological research. Summers only.

ANTH 360 Indians of North America (4)

Prerequisite: ANTH 250
Description and analysis of traditional native American culture areas and impact of modern society on native Americans.

Art Courses

ARTS 101 Studio Foundations I (4)

This is an entry-level class focusing on the dynamics of black and white, two-dimensional media.

It provides students with methods of seeing, visualizing and expressing themselves on paper. Required of all students with an art concentration.

ARTS 102 Studio Foundations II (4)

This is an entry-level class which focuses on the use and perception of color. We will discuss various color systems and work through color exercises based on theory and historic contexts. Required of all students with an art concentration.

ARTS 103 Studio Foundations III (4)

This is an entry-level class devoted to the concepts of three-dimensional materials as used in sculptural forms. Required of all students with an art concentration.

ARTS 104 Terminology, Tools and Materials in Graphic Design (4)

The goal of this course is to make students familiar with the "building blocks" used by graphic designers. Hands-on experience with many of the tools used in this profession is important. Emphasizes the basics of using T-squares, triangles, technical pens, and demonstrates modern graphic computers. Introduces the many types of materials involved such as rubber cement, acetate, papers, etc.

ARTS 201 Art in the Elementary Curriculum (3)

This course is designed to satisfy half the art requirements for those wishing to become certified as elementary teachers in Ohio. The emphasis of these two courses (201 and 202) is to enable the teacher to become a creative coach or a catalyst in the child's artistic growth. Emphasis is on the materials and techniques of school art, and theories of child development.

ARTS 202 Art in the Elementary Curriculum (3)

This course is designed to satisfy half the art requirements for those wishing to become certified as elementary teachers in Ohio. The emphasis of these two courses (201 and 202) is to enable the teacher to become a creative coach or a catalyst in the child's artistic growth. Emphasis is on understanding, facilitating and integrating art into the elementary curriculum.

ARTS 205 Graphic Design Reproduction Techniques (4)

The purpose of this course is to familiarize the graphic design student with the various methods of reproducing the finished art work. We will discuss various methods of printing, color separation, and electronic media. Lectures, demonstrations, field trips, and studio work will be involved.

*ARTS 210 Photography I (4)

An introduction to the art and techniques of photography. Student must provide 35 mm camera.

*ARTS 211 Photography II (4)

Prerequisite: ARTS 210
This class continues to explore photographic techniques as well as darkroom techniques. Student must provide 35mm camera.

*ARTS 212 Photography III (4)

Prerequisite: ARTS 211
This class is a continuation of ARTS 211. Student must provide 35mm camera.

ARTS 215 Photography for the Graphic Designer (4)

The purpose of this class is to provide a basic knowledge of photography for the graphic designer. It will cover the basics of setting up, lighting, and designing photo compositions.

ARTS 221 Painting I (4)

Prerequisite: ARTS 101 and 102 or permission
This course focuses on individual expression through the use of oil and acrylic painting media.

ARTS 222 Painting II (4)

Prerequisite: ARTS 221
This course continues and expands ideas developed in ARTS 221.

ARTS 223 Painting III (4)

Prerequisite: ARTS 222
This course logically extends the concepts developed in ARTS 222.

*Arts 231 Ceramics I (4)

This entry-level course focuses upon the use of clay in creating hand-built pottery forms. Basics of glazing work will be covered.

*ARTS 232 Ceramics II (4)

This entry-level course focuses on learning to use the potter's wheel to create basic thrown forms.

*ARTS 233 Ceramics III (4)

Prerequisite: ARTS 231 and 232
This course will stress among other things the combination of hand built and wheel thrown forms, and a better understanding of glaze techniques.

ARTS 241 Sculpture I (4)

This course is designed to develop the student's ability to conceive and realize three-dimensional forms in various media (plaster, clay, wood, metal, etc.). The aim is to develop an understanding of shapes and mass, acquaintance with tools, techniques and materials for expression.

ARTS 242 Sculpture II (4)

Intermediate sculpture is designed to further a student's skill in three-dimensional work. Technical procedures will include advanced woodcarving, clay molding, stone carving, and various direct "over armature" methods.

ARTS 243 Sculpture III (4)

This will involve studio problems based on concepts applied to various three-dimensional materials. Advanced sculpture places special emphasis on the development of individual expression in the student's chosen medium.

ARTS 245 Printmaking A (4)

Prerequisite: ARTS 101, 102, and 103
An introduction to basic intaglio techniques. Emphasis will be on mastering techniques so that they can be used to develop personal imagery.

ARTS 246 Printmaking B (4)

Prerequisite: 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 247 Printmaking C (4)

Prerequisite: 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 248 Printmaking (4)

Prerequisite: ARTS 247
An introductory course employing the range of graphic possibilities in the relief printing process.

ARTS 251 Typography for the Graphic Designer (4)

This studio course will start with some basic background in type design and theory and will work through its use in modern graphic design. We will cover the use of transfer lettering, type sizing and specification in graphic design.

ARTS 252 Basic Illustration (4)

This studio course will start with design basics and integrate these basics into illustration techniques for the graphic designer. This class will start with black and white graphics and work through color techniques.

ARTS 253 Illustration (4)

Prerequisite: ARTS 251, 252
This course is an extension of ARTS 252. The instructor will help the student develop a portfolio for use in admission to junior level courses at other institutions.

ARTS 261 Art History Survey I (Ancient Through Medieval) (4)

Beginning with the art of prehistoric man, covering Egyptian, Ancient Near East, Aegean, Greek, Etruscan, Roman, Early Christian, Byzantine, Medieval arts and architecture in the West. Covering Romanesque, Gothic and Late Gothic. Slides and lectures.

ARTS 262 Art History Survey II (4)

Beginning with Italian Renaissance to Baroque, Neoclassicism, Romanticism, Realism, Impressionism, Post Impressionism and Twentieth Century painting, sculpture and architecture.

ARTS 271A Life Drawing (4)

Prerequisite: ARTS 101
Drawing from a model in black and white media.

ARTS 271B Life Drawing (4)

Prerequisite: ARTS 271A
Credit for ARTS 271 a second time.

ARTS 272A Life Drawing (4)

Prerequisite: ARTS 271A
An extension of ARTS 271.

ARTS 272B Life Drawing (4)

Prerequisite: ARTS 272A
Credit for ARTS 272 a second time.

ARTS 273A Life Drawing (4)

Prerequisite: ARTS 272A
An extension of ARTS 272.

ARTS 273B Life Drawing (4)

Prerequisite: ARTS 273A
Credit for ARTS 273 a second time.

ARTS 275 Drawing Workshop (4)

Prerequisite: ARTS 101
This course is an extension of the ARTS 101 and 102 Foundations. We will focus on developing drawing skills (perspective, composition, etc.) through the use of colored pencils and advanced black and white media.

ARTS 290 Weaving I (4)

Introduction to weaving techniques through the construction and use of a simple loom and the use of the table or floor loom. Course offered on demand (minimum 10 students).

ARTS 291 Weaving II (2-4)

Prerequisite: ARTS 290
Further examination and use of the four-harness loom (2 credits). Off-loom fibre techniques and the design, construction, and use of hand looms (2-4 credits). Course offered on demand (minimum 10 students).

ARTS 292 Fabric Design I (4)

Prerequisite: ARTS 291
Exploration of methods of printing and dying fabric as well as other methods of design applications with cloth. Student will be encouraged to then use the fabric to make functional and nonfunctional objects.

ARTS 293 Fabric Design II (4)

Prerequisite: ARTS 292
Continuation of ARTS 292.

ARTS 294 Fabric Design III (4)

Prerequisite: ARTS 293
Continuation of ARTS 293.

ARTS 299A Topics in Art (2)

By permission of staff.

ARTS 299B Topics in Art (3)

By permission of staff.

ARTS 299C Topics in Art (4)

By permission of staff.
During the first week of classes, the student will arrange a project which meets with the approval of the staff member supervising this arranged course.

ARTS 321 Intermediate Painting I (4)

Prerequisite: ARTS 223

ARTS 322 Intermediate Painting II (4)

Prerequisite: ARTS 321

ARTS 323 Intermediate Painting III (4)

Prerequisite: ARTS 322
Oil and acrylic painting used to extend concepts developed in earlier painting courses. Individual concepts highly stressed.

ARTS 324 Watercolor I (4)

Prerequisite: ARTS 101, 102, or permission

ARTS 325 Watercolor II (4)

Prerequisite: ARTS 324

ARTS 326 Watercolor III (4)

Prerequisite: ARTS 325
This series of courses focuses on the use of transparent watercolors to extend personal imagery.

ARTS 327 Figure Painting I (4)

Prerequisite: ARTS 223 and 273

ARTS 328 Figure Painting II (4)

Prerequisite: ARTS 327
Painting from a model.

ARTS 331 Intermediate Ceramics I (4)

Prerequisite: ARTS 221
Intermediate handbuilt--includes clay and glazes. A continuation of ARTS 221.

ARTS 332 Intermediate Ceramics II (4)

Prerequisite: ARTS 222, 223
Intermediate throwing techniques--includes decorative techniques.

ARTS 360 Ceramic History Survey I (4)
Prehistoric to modern non-Asian, includes Egypt, Pre-Columbian American, Middle East, Africa, Europe, U.S.A., Asia, China, Korea, Japan, Vietnam, and India.

ARTS 361 Ceramic History Survey II (4)

Prerequisite: ARTS 360
A continuation of ARTS 360.

ARTS 364 North American Art History Survey (4)
A survey of American art (colonial through the present).

ARTS 365 European Art History Survey (4)

A survey of European art (Greek through the present).

ARTS 371A Intermediate Life Drawing (4)

Prerequisite: ARTS 273A
We will be drawing from a model, developing a unique personal style.

ARTS 371B Intermediate Life Drawing (4)

Prerequisite: ARTS 371A
Credit for ARTS 317 a second time.

ARTS 372A Intermediate Life Drawing (4)

Prerequisite: ARTS 371A
An extension of ARTS 371.

ARTS 372B Intermediate Life Drawing (4)

Prerequisite: ARTS 372A
Credit for ARTS 372 a second time.

ARTS 373A Intermediate Life Drawing (4)

Prerequisite: ARTS 372A
An exension of ARTS 372.

ARTS 373B Intermediate Life Drawing (4)

Prerequisite: ARTS 373A
Credit for ARTS 373 a second time.

ARTS 375 Intermediate Drawing Workshop (4)

Prerequisite: ARTS 275
Developing a personal style of

expression in two-dimensional drawing media.

ARTS 399A Topics in Art (2)

By permission of staff.

ARTS 399B Topics in Art (3)

By permission of staff.

ARTS 399C Topics in Art (4)

By permission of staff.
During the first week of class, the student will arrange a project which meets with the approval of the staff member supervising this arranged course.

ARTS 421 Advanced Painting I (4)

Prerequisite: ARTS 323

ARTS 422 Advanced Painting II (4)

Prerequisite: ARTS 421

ARTS 423 Advanced Painting III (4)

Prerequisite: ARTS 422
The focus of advanced painting is to help the artist develop a coherent/cohesive body of work (developing an individual style).

ARTS 427 Advanced Figure Painting (4)

Prerequisite: ARTS 328
Painting from a model.

ARTS 428 Advanced Figure Painting (4)

Prerequisite: ARTS 427
An extension of ARTS 427.

ARTS 499A Topics in Art (2)

By permission of staff.

ARTS 499B Topics in Art (3)

By permission of staff.

ARTS 499C Topics in Art (4)

By permission of staff.
During the first week of class, the student will arrange a project which meets with the approval of the staff member supervising this arranged course.

Automated Information Systems Courses

AISM 101 Introduction to Automated Information Systems (4)

A study of computer history, systems, concepts, applications and social implications. Laboratory activities include basic microcomputer operation and introduction to popular software packages.

AISM 103 Computer Applications (4)

Prerequisite: AISM 101
Hands-on-study in the use of microcomputer software packages including word processing, spreadsheets, data base management, business graphics, data communications and integrated packages.

AISM 310 Data Base Management (4)

Prerequisite: AISM 101 and 103
Data base system design, implementation and access using a relational data base and fourth

generation programming language. Laboratory project required.

AISM 320 Systems Analysis and Design (4)

Prerequisite: AISM 101 and 103
The study of the systems life cycle as related to information systems in business. Structured analysis and design methods are stressed. Case studies and laboratory projects.

AISM 430 Information Systems Development Project (4)

Prerequisite: AISM 310 and 320
The use of microcomputers and applications software to design, construct, and implement a complete operational information system including organizing and loading the database and use of the system to generate appropriate outputs.

Banking and Finance Courses

BAFT 101 Principles of Banking and Finance (4)

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 102 Introduction to Commercial Lending (4)

An overview of the commerical lending function. Four sections cover commercial lending overview, the lending process, portfolio management, and regulation and business development. Specific contents include the commercial loan customer, types of commercial loans, the loan decision process, cost analysis, control and profitability, and the regulatory and legal environment.

BAFT 105 Installment Credit (4)

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

BAFT 106 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 202 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 204 Investments (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.

Biology Courses

BIOL 099 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 processes.

BIOL 110S Life Sciences Core Course (4)

Students will have the opportunity to gain familiarity with the characteristics of life on earth, consider physiological and anatomical features and functions of their own body systems, analyze examples of the impact of biologic phenomena on individual and society, and apply the scientific method. 2 discussion/lab.

BIOL 120 Field Biology (4)

Prerequisite: BIOL 110S or permission
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 151 Principles of Biology (5)

Introduction to principles and concepts of life; emphasis on interrelationships of structural, functional, reproductive, evolutionary and ecological principles related to cells and organisms. 3 lec. 4 lab.

BIOL 162 Human Anatomy and Physiology (5)

Prerequisite: BIOL 151
A general survey of the structure and function of the human body. Not applicable for students requiring BIOL 290 and 291. 4 lec. 2 labs.

BIOL 202 Principles of Plant Biology (5)

Prerequisite: BIOL 151
Anatomy and morphology of seed plants are related to the functional aspects of photosynthesis, growth, transport and reproduction. Practical emphasis on plant/man interactions. Brief survey of plant kingdom with focus on life histories and evolutionary relationships. 3 lec. 4 lab.

BIOL 203 Principles of Animal Biology (6)

Prerequisite: BIOL 151
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 lab.

BIOL 210 Taxonomy of Vascular Plants (4)

Prerequisite: 110S or permission
Principles of classification of extinct and extant seed plants with emphasis on family recognition. Collection, identification and preservation of seed plants. 3 lec. 3 lab.

BIOL 212 Forestry Management and Practices (4)

Prerequisite: BIOL 110S and 202
This course investigates the development and the existing practices of modern forestry in the United States. Basic management practices are discussed with laboratory exercises designed to improve forest management skills. 3 lec. 2 lab.

BIOL 220 Wildlife Management (4)

Prerequisite: BIOL 110S or permission
A study of 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. 3 lec. 2 lab.

BIOL 235 Microbiology (5)

Prerequisite: BIOL 151
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 diseases. Principles of immunity and resistance to disease. Laboratory includes methods of sterilization, culture, staining and identification. 4 lec. 3 lab.

BIOL 260 Neurobiology of Behavior (4)

Prerequisite: BIOL 110S and PSYC 121
Basic neurology, neurophysiology, and neuropharmacology, with emphasis on how they relate to human behavior. 4 lec.

BIOL 271 Field Ornithology (4)

Prerequisite: BIOL 110S
A study of the classification, adaptations, and habitat requirements of the birds with particular emphasis on Ohio species. Field identification will be emphasized in lab. 3 lec. 3 lab.

BIOL 272 Ohio's Natural Heritage (3)

Prerequisite: BIOL 110S
An exploration of the natural history of Ohio. Arranged field trips will visit all five of Ohio's physiographic regions. 2 lec. 3 lab arranged.

BIOL 290 Principles of Anatomy (5)

Prerequisite: BIOL 151
An introduction to morphology of tissues and systems of the human body. 4 lec. 3 lab.

BIOL 291 Principles of Physiology (5)

Prerequisite: BIOL 290
An introduction of human cellular and systems physiology. 5 lec.

BIOL 295 Independent Study (1-4)

Independent life science investigation under the direction of a faculty member.

BIOL 299 Seminar in the Life Sciences (1-4)

Discussion of advanced topics in the life sciences.

BIOL 302 Dendrology (4)

Collection, identification, nomenclature, classification, ecological relationship of native, introduced and cultivated woody plants. 2 lec. 4 lab. Fall Quarter--odd years.

BIOL 303 Spring Flora (4)

Prerequisite: BIOL 202
Identification, nomenclature, classification of spring flowering plants. Origin and evolution of flora in Ohio. 2 lec. 4 lab. Spring Quarter--even years.

BIOL 307 Diagnostic Microbiology (5)

Prerequisite: BIOL 235
Diagnostic procedures for the recovery and identification of medically important bacteria and fungi. Emphasis will be placed upon the morphological, cultural, biochemical, and serological characteristics of various pathogenic bacteria and fungi. 3 lec. 6 lab.

BIOL 311 Kinesiology (5)

Prerequisite: BIOL 290 or 162
Concentration on skeletal and muscle systems and their functional interplay in the analysis of motion. 4 lec. 2 lab.

BIOL 315 Histology (5)

Prerequisite: BIOL 290
Study of the structure of cells, tissues, and organ systems and their physiological properties. 4 lec. 2 lab.

BIOL 321 Human Physiology Lab (2)

Prerequisite or concurrent: BIOL 291
Laboratory designed to complement Biology 320. Exercise will illustrate basic physiology principles and techniques, with emphasis on the human. 4 lab.

BIOL 330 Ecology ~~(4)~~ 3

Prerequisite: BIOL 151
A study of the interrelationships among the many elements in an environment. A historical approach looks at the concept of evolution, man's impact upon the environment, and common ecological problems faced by society. Labs introduce common and basic ecological techniques. ~~3~~ lec. ~~2~~ lab.
2 3

BIOL 331 Advanced Field Biology (4)

Prerequisite: BIOL 330
Examination of the principles and techniques of biological field investigation. 2 lec. 4 lab.

BIOL 340 Genetics (5)

Prerequisite: BIOL 151
Principles and concepts of genetics as revealed by classical and modern investigation.

BIOL 341 Genetics Lab (2)

Prerequisite or concurrent: BIOL 340
Experiments and experiences designed to illustrate principles of genetics. 4 lab.

BIOL 351 Microbiology Lab (1)

Prerequisite or concurrent: BIOL 235
Additional laboratory experience for the student intending to major in the life sciences. Will introduce student to media preparation, collection of lab data, and its graphic interpretation. 3 lab.

BIOL 360 Plant Anatomy and Morphology (5)

Prerequisite: BIOL 202
Detailed study of vascular plant anatomy and morphology considered from an evolutionary viewpoint. Labs involve study of anatomy and morphology of all major vascular plant groups, extinct and extant. 4 lec. 4 lab. Winter Quarter--odd years

BIOL 365 Phycology (5)

Prerequisite: BIOL 151
An introduction to the taxonomy, morphology, evolution and ecology of terrestrial, freshwater and marine algae. Practice in identifying local species. 2 lec. 4 lab.

BIOL 366 Mycology (5)

Prerequisite: BIOL 151
Survey of all fungal groups including slime molds. Field trips for collecting fruiting structures and observing plant pathogenic species. 2 lec. 4 lab. Fall Quarter--even years.

BIOL 395 Special Topics in Biology (1-4)

Prerequisite: BIOL 110S
Individual or small-group study, under the supervision of instructor, of topics not otherwise available to students.

BIOL 410 Advanced Human Anatomy (5)

Prerequisite: BIOL 290
A sectional approach to the anatomy of the human body utilizing cadaver dissection. 3 lec. 4 lab.

BIOL 411 Biochemistry (4)

Prerequisite: CHEM 307
General principles of structure, function, physical and chemical properties of carbohydrates, lipids, nucleic acids, and proteins. 3 lec. 3 lab.

BIOL 432 Cell Biology (5)

Prerequisite: BIOL 151 and CHEM 305
Current survey of the structure and function of eukaryotic and prokaryotic cells, including recent advances in molecular biology and tissue culture technique. 4 lec. 2 lab.

BIOL 450 Immunology (4)

Prerequisite: BIOL 350
Study of antigen and antibodies with emphasis on in vivo and in vitro reactions, including recent information in immunogenetics and monoclonal strategies. 4 lec.

BIOL 470 Plant Physiology (5)

Prerequisite: BIOL 202 and 360
A general introduction including plant/soil, plant/water relationships, mineral nutrition, photosynthesis and growth integrated with related aspects of biophysics. 3 lec. 3 lab.

BIOL 485 Senior Project (1-4)

Prerequisite: Junior or Senior level standing.
Indepth study of a selected topic in the life sciences, culminating in the preparation of a senior paper.

BIOL 490 Seminar in the Life Sciences (1-4)

Prerequisite: Junior or Senior level standing.
Discussion of advanced topics in the life sciences.

BIOL 495 Undergraduate Research (1-4)

Prerequisite: Junior or Senior level standing.
Independent life science investigation under the direction of a faculty member.

Business Law Courses

BUSL 250 Business Law I (4)

An introduction to the legal environment of business based on the uniform commercial code including the forms and classifications of law, an overview of the court systems and court procedure, social forces and the law, torts and crimes, and the principles of contract law.

BUSL 260 Business Law II (4)

A continuation of Business Law 250 including the study of the law covering sales, agency and employment, commercial paper and personal property and bailments.

BUSL 270 The Legal Environment of Business (4)

An examination of the creation and evolution of principles and rules of law, emphasizing an understanding of the court system and court procedure, the role of administrative agencies and government regulations, and the study of criminal, tort, and the substantive law of contracts.

CADD (Computer Aided Drafting and Design)

*CADD 101 Introduction to CADD (3)

Prereq. ENDR 101 concurrently or advisor approval. This is a beginner's course. No computer programming experience is necessary. A strong background in drafting is desirable, although it is not required. Knowledge of keyboarding would be a plus.

The purpose of this course is to provide an understanding of the features, limitations, and considerations associated with the operation of a microcomputer-based computer-aided design or drafting CADD system. Students will gain valuable hands-on experience using the AutoCAD micro-based CADD software, personal computers, input/pointing devices such as digitizers and mice, and output devices such as pen plotters and matrix printers. Several mechanical drawings will be output on a plotter as a test of the newly developed skills. The proper use of each hardware is covered near the beginning of the course. 1 lec. 5 lab.

*CADD 102 Mechanical Drawing With 3-D CADD Applications (3)

Prereq. CADD 101. This course will consist of an introduction to the specialized areas of drafting and will utilize the CADD system to introduce three-dimensional drawing. The specialized areas are Cam design, plot plans, isometric drawings, and 3-D. The 3-D portion will be 3-D modeling using the AutoCAD ADE3 extension, and Micro Control System's CADKEY. Isometric drawings will be made using AutoCAD and a customized screen menu you will create yourself. Objects will be revolved in space using conventional 2-D drafting techniques, AutoCAD, and CADKEY.

*CADD 103 Electronic Schematics and Wiring Diagrams (3)

Prereq. CADD 102. You will develop your own electronic symbols library

according to the ANSI Y32.2 standard. Subsequently, you will learn to customize the tablet menu to allow you to insert your symbols, which you will make into blocks, without having to use keyboard entry. Using this library and the custom tablet menu, you will draw electronic schematic diagrams.

You will also develop a library for drawing printed circuits. You will be given a schematic diagram and you will make a complete set of drawings to include a space allocation layout, a tape drawing showing the conductor paths, a drill drawing, and a soldering mask.

*CADD 104 Advanced Technical Drawing (3)

Prereq. CADD 102. This course is to enable you to solve practical engineering problems using basic principles, which you learned in Engineering Drawing I and Engineering Drawing II, instead of solving mathematically. We will be studying the relationship between points, lines, and surfaces in space, otherwise known as Descriptive Geometry.

*CADD 105 Mapping With CADD (3)

Prereq. CADD 104. Topographical maps, a section through a proposed highway route, a subdivision map, plot plans from deed descriptions, and building site maps will be drawn. The large number of symbols, abbreviations, and terms associated with maps will be learned.

*CADD 106 Structural Details and Floor Plans (3)

Prereq. CADD 104. We will design a house, with each student assuming responsibility for one part of the design. Initially each student will design a floor plan given some specifications as to sizes, cost, etc. The class will pick the best floor plan and design a house using that floor plan.

The set of plans will consist of

Floor plan containing framing plans, mechanical plans, and electrical plans
Foundation plans
Site plans
Elevations
Details of corners, etc.
Window and door schedules
Bill of material

Other activities include building a scale model, and estimating the cost of the material and labor. It is assumed you will work under the guidance of a project engineer or a designer, in your career. Similarly, the instructor's role will be in a consulting capacity, making recommendations as to dimensions and specifications.

*CADD 107 Piping Drawings (3)

Prereq. CADD 104. You will learn to represent piping in single-line diagrams, double-line diagrams, isometric diagrams, and in orthographic views of "spools". You will design a pipe flange given the size of pipe and the operating pressure. Template layouts will be made for cutting pipe to form turns of various angles with two or more pieces.

*CADD 108 Welding Drawings (3)

Prereq. CADD 104. This course is for those who have no experience in making or reading weldment drawings. Both production weldment drawings and structural weldment drawings will be made. Welding processes and procedures will be covered only to the extent necessary for you to be able to make the assigned drawings. Machining conventions will be covered so you will be able to read and to make complete production weldment drawings. Delineating weld symbols on drawings will be

emphasized. A term project will be assigned in which you will design a product made from structural steel.

*CADD 109 Casting and Mold Design (3)

Prereq. CADD 104. A complete set of plans will be drawn giving the specifications necessary for a foundry to be able to manufacture a part. The plans will include a pattern drawing with gates, a core box drawing, the casting drawing of the part, and a machined part drawing. The text is to be studied at home and will give you an understanding of the manufacturing processes, hardware, and terminology used in foundry circles. The text consists of 395 questions with the answers immediately to the right, which should be covered until you have filled in the blank(s).

*CADD 210 Computer Aided Drafting and Design (3)

Prereq. EDPT 101 and ENDR 101 or advisor approval. This course explores the fundamental concepts and commands of a computer aided design system. Topics include: reasons for using CADD; hardware/software of the system; graphical data bases; coordinate systems; productivity techniques; CADD applications. The lab will prepare students to operate both two-dimensional and three-dimensional systems.

Chemistry Courses

CHEM 101 Fundamental Chemistry (4)

This course is designed for those students with an inadequate background in chemistry. It should be taken by students who have not had high school chemistry. Topics and material presented are intended to increase student's familiarity with terms, chemical processes, and chemical calculations.

CHEM 121 Introduction to General Chemistry I (4)

An introductory course in fundamental concepts of chemistry for nonscience majors. Topics covered include atomic structure, compound formation, chemical equations, stoichiometry, oxidation-reduction reactions, and nuclear chemistry. Credit not allowed for CHEM 101, CHEM 121 and 141. 3 lec. 3 lab. Recommended for students requiring only one year of chemistry.

CHEM 122 Introduction to General Chemistry II (4)

Prerequisite: CHEM 121 or permission
Properties of solutions, reactions in solution, acids and bases, equilibrium. Credit not allowed for both CHEM 122 and 142. 3 lec. 3 lab.

CHEM 123 Introduction to Organic Chemistry I (4)

Prerequisite: CHEM 121 or CHEM 141 or permission
A course in fundamental organic chemistry. The study of the major functional groups: Saturated and unsaturated hydrocarbons, alcohols and ethers, aldehydes and ketones, carboxylic acids, amines, carboxylic acid derivatives. The organic chemistry of carbohydrates, lipids, and proteins is covered. 3 lec. 3 lab.

CHEM 141 General Chemistry I (4)

Prerequisite: High school algebra and high school chemistry or CHEM 101
An introduction to chemistry through the study of fundamental

chemical concepts, atomic structure, periodic classification, mole concept, stoichiometry with problem solving, chemical bonding, and chemical reactions in water solution. Credit not allowd for both CHEM 121 and 141.

CHEM 142 General Chemistry II (4)

Prerequisite: CHEM 141
An introduction to states of matter, properties of solutions, chemical thermodynamics, and nuclear chemistry. Credit not allowed for both CHEM 122 and 142. 3 lec. 3 lab.

CHEM 143 General Chemistry III (4)

Prerequisite: CHEM 142
An introduction to chemical kinetics, acid-base theory, ionic equilibria, electrochemistry, coordination compounds, and qualitative analysis. 3 lec. 3 lab.

CHEM 201 Introduction to Organic Chemistry II (4)

Prerequisiste: CHEM 200
Continuation of CHEM 200. Topics include conformational analysis, reaction mechanism, spectroscopy, polymers. 3 lec. 3 lab.

CHEM 223 Quantitative Analysis (5)

An introduction to methods of chemical analysis by classical gravimetric and volumetric techniques, colorimetry and potentiometry with emphasis on solution equilibria and stoichiometric calculations. 3 lec. 6 lab.

CHEM 295 Special Topics in Chemistry (1-4)

Prerequisite: PSCI 110S
Individual or small-group study, under the supervision of instructor, of topics not otherwise available to students.

CHEM 305 Organic Chemistry I (4)

Prerequisite or corequisite: CHEM 143
A course for science majors wishing to acquire a sound knowledge of classical and modern organic chemistry. 3 lec. 3 lab.

CHEM 306 Organic Chemistry II (4)

Prerequisite: CHEM 305
Continuation of 305. See 305 course description. 3 lec. 3 lab.

CHEM 307 Organic Chemistry III (4)

Prerequisite: CHEM 306
Continuation of 305 and 306. See 305 description. 3 lec. 3 lab.

CHEM 325 Instrumental Analysis (5)

Prerequisite: CHEM 223
An introduction to methods of chemical analysis by spectrophotometric, spectrographic, chromatographic, and electrometric techniques. 3 lec. 6 lab.

CHEM 350 Polymer Chemistry (3)

Prerequisite: CHEM 201 or 307
The synthesis and the physical and chemical characterization of polymers. Thermodynamics and kinetics of polymerization, molecular weight determination and solution properties. 2 lec. 2 lab

CHEM 411 Biochemistry (4)

Prerequisite: CHEM 307
General principles of structure, function, physical and chemical properties of carbohydrates, lipids,

nucleic acids, and proteins. 3 lec. 3 lab.

CHEM 431 Introduction to Physical Chemistry (4)

Prerequisite: CHEM 223, MATH 203, PHYS 303
The basic theories of chemistry are developed and applied to problems of current chemical interest. 3 lec. 3 lab.

CHEM 485 Senior Project (1-4; maximum 4)

Prerequisite: Junior or Senior standing and permission of instructor.
Indepth study of a selected topic in chemistry, culminating in the preparation of a senior paper.

CHEM 490 Seminar in Chemistry (1-4; maximum 4)

Prerequisite: Junior or Senior standing and permission of instructor. Study of a specific advanced topic in chemistry.

CHEM 495 Undergraduate Research (1-4; maximum 9)

Prerequisite: Junior or Senior standing, 2.75 grade point average in chemistry, and permission of instructor.
Independent chemistry investigation under the director of a faculty member. A written report required.

Comparative Arts Courses

COMA 101 Survey of the Arts I (3)

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

COMA 102 Survey of the Arts II (3)

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

COMA 103 Survey of the Arts III (3)

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

Data Processing Courses

*EDPT 101 Introduction to Data Processing (3)

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

*EDPT 103 BASIC Language I (3)

Prerequisite: EDPT 101
This course provides an introduction to data processing and the programming language BASIC. No prior experience either in 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 program.

*EDPT 104 BASIC Language II (3)

Prerequisite: EDPT 103
This course teaches advanced BASIC programming techniques. Students will learn how to optimize file creation and access.

*EDPT 105 COBOL Programming I (4)

Prerequisite: EDPT 104
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 106 COBOL Programming II (4)

Prerequisite: EDPT 105
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 201 Assembler Programming (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 202 Computer Operations Management (3)

Prerequisite: Two programming languages and sophomore status. Personnel policies, computer management procedures, equipment acquisition, and management of resources as it relates to data processing problems. Instruction of basic management principles to effectively manage a computer system, computer personnel, and resources.

*EDPT 203 Business Computer Projects (4)

Prerequisite: Sophomore status
Programs will be assigned on an individual basis. Certain commands will be required within the program. Students will be instructed on how to refer to manuals to determine correct use of these commands and what their limitations are.

*EDPT 204 Computer Applications (4)

Prerequisite: Two programming languages and Sophomore status. Students will work in groups to do a complete systems proposal, design testing debugging, and implementation.

EDPT 205 Business Data Systems & Comm. (3)

Prerequisite: One computer language , Sophomore status.
A study of man-machine interactions through teleprocessing and telecommunication systems. Emphasis on current time-sharing languages and data bases, and management information systems (MIS). Problem solving techniques requiring the use of terminals will be learned. Laboratory project included.

*EDPT 206 FORTRAN IV (4)

Prerequisite: Sophomore status. A basic course in FORTRAN. FORTRAN arithmetic, formats, 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 207 PASCAL Language (4)

Prerequisite: Sophomore status. 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 208 RPG II Language (4)

Prerequisite: Sophomore status 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.

Dental Hygiene Courses

DTHY 101A Radiology I (2)

Didactic instruction in dental radiology. Topics include: characteristics of radiation, components and functions of the x-ray machine and x-ray production. Emphasis is placed on exposure factors and their effects on radiographs, effects of radiation exposure and radiation protection. Dental x-ray films and film processing are also covered.

DTHY 101B Radiology II (2)

Continuation of Radiology I. Emphasis is placed on radiographic technique through lecture and lab experiences. Radiographic technique includes film placement, tube head placement and exposure of different types of intra-oral film. Lab experiences include bisection of the angle and paralleling techniques as well as extra-oral radiographs. Student will process and mount film, as well as learn to recognize processing and technical errors, normal anatomical landmarks and pathology. Throughout the second year, specific minimum numbers and types of radiographs will be required clinically.

DTHY 102 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 103A Dental Materials I (3)

Didactic instruction on the physical properties of materials used in dentistry. Basic principles on the preparation and use of certain restorative materials, impression materials and laboratory procedures will be discussed.

DTHY 103B Dental Materials II (1)

Continuation of Dental Materials I. In a laboratory setting, students

learn techniques in working with various types of dental materials so that the student will be able to assist the dentist as well as perform certain laboratory procedures and selected clinical duties.

DTHY 111 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 deciduous dentition to Clinical Dental Hygiene.

DTHY 112 Oral Anatomy II (2)

Detailed study of the anatomy of the head and neck. Special emphasis is made toward the face and jaws. Cranial skeleton with emphasis on facial bones. Muscles of the head and neck: functions, nerve supply and blood supply. Detailed study of the topographical and functional anatomy of the oral cavity and pharynx.

DTHY 121 Clinical Dental Hygiene I (4)

The introduction to the profession, including history and development of dental hygiene. The course will familiarize the student with medicodental terminology and deal with the etiology of deposit formation such as plaque, calculus and stains. The principles of preventive dentistry will be discussed in relationship to deposits, dental caries and gingival inflammation. Oral physiotherapy and methods of motivating patients to practice good oral hygiene will be discussed. The importance of complete patient records and screening techniques will be covered. Techniques for prevention of disease transmission will be followed. Guidelines for professional appearance will be outlined. Patient/operator positioning and basic instrumentation principles will be given, followed by lab practice on typondonts for manual dexterity in the control and use of instruments, and then transferring these acquired skills to a patient.

DTHY 122 Clinical Dental Hygiene II (4)

This course will be a continuation of Clinic I, providing the student with knowledge concerning the hygienist's role in dental hygiene patient care and the objectives for the practice of dental hygiene care. A reinforcement of general clinic routines for collection of diagnostic data, including intra/extra oral exams and dental/periodontal charting. Skill practices will include reviewing detection of hard and soft deposits with more indepth attention to scaling and polishing techniques and periodontal evaluation with probing. Importance of fluorides to dental health and techniques for application will be covered. All skills will be transferred from manikin to patient.

DTHY 123 Clinical Dental Hygiene III (4)

A continuation and application of previouly 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 techniques of hard and soft tissues and techniques of instrument sharpening. Techniques of sequencing treatment planning for individual patients and importance of educating patients in prevention of oral disease.

DTHY 124 Clinical Dental Hygiene IV (5)

A continuation of previously learned techniques and procedures of dental hygiene care and services, performed in the clinic atmosphere as they would be in practice. Techniques of sequencing treatment planning for individual patients and importance of educating patients in prevention of oral disease.

DTHY 125 Clinical Dental Hygiene V/Applied Nutrition (5)

A continuation of dental hygiene clinical practice to include applied nutrition as it relates to current concepts in preventive dentistry for the dental hygienist. The philosophy of prevention as it pertains to diet, patient education, patient care, and the control of dental disease is included.

DTHY 126 Clinical Dental Hygiene VI/Jurisprudence and Career Management (5)

A continuation of previously learned dental hygiene clinical techniques and procedures with emphasis on prevention and trial state board patients. Ethics, jurisprudence, state laws, malpractice and professional organizations will be discussed as they relate to the dental hygiene profession. Career placement is investigated through the development of resumes and review of interviewing techniques. Job selection is considered through exploration of employment opportunities. Practice management will also be included.

DTHY 127 Clinical Dental Hygiene VII/Special Needs (5)

Complete dental hygiene care involving the use of advanced skills and techniques learned in previous dental hygiene courses. Special needs patients will be discussed. Selected topics through seminars and lectures are presented to aid professional growth.

DTHY 201 General and Oral Pathology (3)

An introduction to pathology. Processes of inflammation, necrosis, retrograde changes, and wound healing are discussed. Etiologies, diagnosis, treatment, and prognosis of oral lesions are discussed. Clinical pathology of diseases affecting teeth and their supporting structures. Visual aids are used to study oral lesions and their clinical manifestations.

DTHY 202 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 204 Pharmacology and Anesthesiology (3)

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 205 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 instruction of dental health in Elementary and Secondary Schools.

DTHY 206 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 implementing a dental public health program to meet the specific dental health needs of community groups. This course equips the student to promote oral health and prevent oral disease in a community. Participation in a dental public health project is a part of this course.

Economics Courses

One course in introductory Economics is required for the major in Social Science.

ECON 101 Principles of Economics I (4)

An introduction to basic economic issues, terminology, and theory. The study of macroeconomics, including national income analysis, business cycles, the role of financial institutions and economic growth.

ECON 102 Principles of Economics II (4)

Prerequisite: ECON 101
The study of individual economic decision making theories including a survey of supply and demand, elasticity, economic cost, forms of competition, international trade and payments, input factors and income distribution.

ECON 301 Intermediate Microeconomics (4)

Prerequisite: ECON 101 and 102
A study of the economic theories of the consumer and the firm. Analysis of price and output behavior under various product and market structures and resource market analysis.

ECON 325 Economic History of the U.S. (4)

Prerequisite: ECON 101 and 102
Analysis of the changes in the economic structure and development of the United States from colonial days to the present. Includes a survey of American economic life and the role of entrepreneurship in economic development.

ECON 411 Comparative Economic Systems (4)

Prerequisite: ECON 101 and 102
An analysis of the different economic systems: capitalism, socialism, communism and mixed systems. Survey of the differences and similarities of the economic institutions among these systems.

Electrical/Computer Technology Courses

ETEC 210 Introduction to Electricity (4)

Prerequisite: MATH 130
Fundamental principles of DC and AC electricity. Analysis of electrical circuits to determine quantities of voltage, current, resistance, power, and energy. An

introduction to motors, generators, relays, and transformers. 3 lec. 3 lab.

ETEC 211 Introduction to Electronics (4)

Prerequisite: ETEC 210
Introduction to solid state electronics with emphasis on practical applications. Process control techniques will be surveyed. 3 lec. 3 lab.

ETEC 285 Internship I (1)

Prerequisite: Junior standing
Minimum of 40 contact hours of practical industrial experience in the electrical and computer fields. Students are required to maintain complete records of their learning experiences.

ETEC 310 Network Analysis (4)

Prerequisite: MATH 202, EMNG 112
Integral-differential equations applied to the modeling of electrical circuits and systems. Transfer function synthesis, Fourier and Laplace transforms in the time and frequency domains with sinusoidal and complex harmonic signals. All lecture.

ETEC 320 Digital Computer Systems I (3)

Prerequisite: EMNG 212
Systematic methods of sequential digital machines, register transfer language, memory and processor organization, microprogrammed control, and current machine architecture. All lecture.

ETEC 320 Digital Computer Systems I Laboratory (1)

Corequisite: ETEC 320 lecture.
Laboratory exercises in the systematic methods of sequential digital machines, register transfer language, and processor organization. 3 lab.

ETEC 321 Digital Computer Systems II (3)

Prerequisite: ETEC 320
Introduction to microcomputer hardware and software with 8-bit word lengths. Topics include microprocessor architecture, microcode, timing and control, memory, and assembly language programming. All lecture.

ETEC 321 Digital Computer Systems II Laboratory (1)

Corequisite: ETEC 321 lecture.
Microprocessor hardware interconnections and software programming exercises using elemental microcomputer systems to illustrate lecture concepts. 3 lab.

ETEC 330 Advanced Programming Languages (1)

Prerequisite: EDPT 103, EDPT 206
Introduction to structured programming environments PASCAL, FORTRAN 77, and C programming languages. File structures, program development tools, data types, and pointers. All lecture.

ETEC 330 Advanced Programming Languages Laboratory (2)

Corequisite: ETEC 330 lecture
Implementation of lecture concepts for high-level programming languages on IBM/AT and Micro VAX computers employing system utilities, programming tools, memory management, and directory structures. All lab.

ETEC 340 Computer Operating Systems (2)

Prerequisite: ETCO 321
Introduction to data structures and operating system concepts including MS.DOS, WMS, and UNIX. Compiler design, system utilities, monitors, editors, and diagnostic routines. All lecture.

ETEC 340 Computer Operating Systems Laboratory (1)

Corequisite: ETEC 340 lecture.
System software experience with contemporary computer operating system utilities, structures, alteration, and diagnostics. 3 lab.

ETEC 350 Advanced Microcomputer Design (3)

Prerequisite: ETEC 321
Extension of microcomputer systems to 16-bit architectures, addressing modes, memory management, processor I/O including DMA and communications controllers, and coprocessors. Multiprocessor and multitasking environments. All lecture.

ETEC 350 Advanced Microcomputer Design Laboratory (1)

Corequisite: ETEC 350 lecture.
Utilization of microcomputer development systems and in circuit emulation of target microcomputers for software development, proofing, and hardware debugging practicums. 3 lab.

ETEC 385 Internship II (1)

Prerequisite: Senior standing
Minimum of 120 hours of practical industrial experience in electrical and computer fields. Students are required to maintain complete records of their learning experiences.

ETEC 420 Discrete Math and Signal Processing (4)

Prerequisite: ETEC 310, ETEC 321
Discrete-time signal operations, fast-Fourier and Z-transforms for synthesizing. All lecture.

ETEC 425 Database Management Systems (3)

Prerequisite: ETEC 330, ETEC 340
Comparison of various database models, query systems, architectures and maintenance. Applications in inventory control, point of sale, and manufacturing control systems. All lecture.

ETEC 430 Computer Interfacing Systems (3)

Prerequisite: ETEC 350
Study of sensors, instrumentation amplifiers, filters for measurement signals, analog signal conditioning, data conversion and recovery devices, and systems for real-time computer I/O design. Digital processor interfacing, I/O programming, performance measures. All lecture.

ETEC 430 Computer Interfacing Systems Laboratory (1)

Corequisite: ETEC 430
Laboratory exercises in the design of data acquisition, conversion, and recovery devices and systems for real-time computer I/O interfacing. Application of error budgets and measurements for performance verification. 3 lab.

ETEC 435 Electric Power Distribution (4)

Prerequisite: ETEC 310
Per unit power calculations, Y-bus,

3-phase faults, symmetrical components, load-flow control, system protection and standards. All lecture.

ETEC 440 Digital Control Systems (3)

Prerequisite: ETEC 420
Design and analysis of feedback control for velocity and position regulation in both continuous and sampled-data systems. Analysis in both time and frequency domains for stability and response. Servomechanisms and process automation. All lecture.

ETEC 440 Digital Control Systems Laboratory (1)

Corequisite: ETEC 440 lecture.
Experimental investigation of feedback control with measurement of transient response, steady-state error and compensation effects. Digital controllers for temperature, pressure, flow, and level control loops. 3 lab.

ETEC 445 Data Communications (4)

Prerequisite: ETEC 420
Investigation of analog and digital modulation and detection methods and performance measures for data transmission. AM, FM, OOK, PSK, and PAM systems, noise and channel media, MODEMS, and local area networks. All lecture.

ETEC 460 Manufacturing Automation (4)

Prerequisite: ETEC 430, ETEC 440, ETEC 445
Design for quality methods in computer integrated manufacturing processes. Sensor/Computer control structures for data-driven automation systems, networks for factory communications, manufacturing technologies, and statistical process control. All lecture.

ETEC 490A Senior Project I (4)

Prerequisite: Senior standing.
Real-world detailed applied design project combining theoretical and experimental elements in advanced development of the primary area of student interest under the guidance of faculty mentor. Approximately 160 hours of effort culminating in a senior thesis.

ETEC 490B Senior Project II (4)

Prerequisite: ETEC 490A
Continuation of Senior Project I.

Electro-Mechanical Engineering Technology Courses

EMNG 096 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 105 Electro-Mechanical Drawing (2)

Prerequisite: ENDR 101 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 111 Electrical Fundamentals I (4)

Prerequisite: MATH 130 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 112 Electrical Fundamentals II (4)

Prerequisite: EMNG 111 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 115 Electro-Mechanical Devices (3)

Prerequisite: EMNG 112 concurrently or advisor approval.
An introduction to devices where both electrical and mechanical principles are utilized. The course content includes DC motors and generators, 3-phase circuits, transformers, induction motors, alternators, and synchronous motors.

*EMNG 121 Electronics I (3)

Prerequisite: EMNG 112 or advisor approval.
A modern introduction to discrete, bipolar solid state electronic devices and basic electronic circuits including small signal amplifiers, transistor biasing, equivalent circuits, electronic unregulated DC power supplies, and special solid state devices.

*EMNG 122 Electronics II (3)

Prerequisite: EMNG 121 or advisor approval.
Continuation of Electronics I. Frequency response, decibels, cascaded amplifiers, feedback amplifiers, power amplifiers, field effect amplifiers, unijunction transistors, control circuits, and regulated DC power supplies.

*EMNG 201 Intro Electro-Mechanical Systems (3)

Prerequisite: EMNG112, EMNG 115, EMNG 121, and concurrent EMNG 122, or advisor approval.
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 202 Mechanical Systems (3)

Prerequisite: MATH 132 and PHYS 201 or PHYS 301, or advisor approval.
A study of the principles of rpm, torque, and displacement in a wide variety of gearing applications along with the analysis of forces or loads acting upon the system. Analyses of stress and strain, strength of materials, friction, torsion, and moment of inertia are made.

EMNG 204 Control Devices (3)

Prerequisite: EMNG 122 concurrently or advisor approval.

A study of control devices responding to a variety of inputs. These include temperature changes, pressure variations, rates of flow, potentials generated by light energy, moisture conditions, or any one of a number of physical conditions. Programmable controller languages are also studied.

*EMNG 206 Hydraulics and Pneumatics (3)

Prerequisite: MATH 130 or advisor approval.
A study is made of the functions 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 hydraulics and pneumatics for power transmission and for control purposes.

*EMNG 208 Automatic Control Systems (3)

Prerequisite: EMNG 122, EMNG 204, and EMNG 206 concurrently or advisor approval.
A study of complete electro-mechanical open and closed loop analog and digital systems. The microcomputer and programmable controller are used to interface input and output transducers to build complete automatic control systems. Emphasis is placed on the understanding of interfacing feedback signals to process control.

*EMNG 209 Robotics (3)

Prerequisite: EMNG 122, EMNG 202, EMNG 204, and EMNG 206, EMNG 208 concurrently or advisor approval.
A survey course in Robotics. The course studies the types of industrial robots, control schemes, and applications.

*EMNG 211 Electronic Logic Circuits I (3)

Prerequisite: EMNG 121 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 212 Electronic Logic Circuits II (3)

Prerequisite: EMNG 122, EMNG 211 or advisor approval.
Continuation of Logic Circuits I. Integrated circuit applications which include combinational and sequential logic, printed circuits, counters, registers, decoders, signal converters, and microprocessor-based microcomputers.

*EMNG 215 Electro-Mechanical Design (3)

Prerequisite: EMNG 115, EMNG 122, EMNG 201, EMNG 208, and EMNG 212 concurrently 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 220 Electro-Mechanical Systems (3)

Prerequisite: EMNG 115, EMNG 122, EMNG 201, EMNG 206, EMNG 208, and EMNG 211 or advisor approval.
Electro-Mechanical systems are

analyzed in detail to demonstrate that there are only a few principles involved in extremely complex systems. 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.

Elementary Education Courses

EDUC 110 The Teacher as an Inquiring Professional I: Strategies for Observation and Reflection (2)

This course serves three major purposes. First, it introduces prospective teachers to a clear and explicit conception of teaching: that of a teacher developing talents over time by systematically inquiring into practice. The cycle of plan/act/observe/reflect which is fostered throughout the professional sequence is developed. Second, the course introduces students to norms, conventions, and expectations and rewards for teachers. Third, the distinctive nature, scope and sequence, and demands of SSU's program are outlined.

EDUC 210 The Teacher as an Inquiring Professional II: Strategies for Action Research (1)

Prerequisite: EDUC 110
This course refines and reinforces the cycle of plan/act/observe/reflect by engaging students in a series of protocols which illustrate positive and negative exemplars of policies, conditions and practices at the school level. Basic elements of action research are introduced by having students validate observations and data collection with one another in inquiry teams.

EDUC 220 Social/Physical/ Intellectual Growth & Development (3)

In addition to exploring dimensions of growth and development, students will apply the action research cycle in assesssing their own development cognitively, emotionally and socially using diagnostic measures parallel to those employed in assessing development in elementary-age students. Students will also examine how they approach tasks through Fuller's Levels of Concern model.

EDUC 230 Instructional Media, Technology and Computers (2)

A variety of media will be examined not only for how they can be employed instructionally but also how they can be utilized to observe and reflect on practice. Students will develop proficiencies in the operation of media, the production of instructional aids, and the selection of media appropriate to particular instructional strategies and objectives.

EDUC 240 Foundations and Competing Epistemologies I (2)

This course is the first in a sequence of three courses integrating the social, philosophical and historical foundations. Focusing on the competing epistemologies introduced in EDUC 110, the course will demonstrate the implications of specific perspectives from a) an historical perspective and b) in terms of influences on the broader social context and mission of schools.

EDUC 310 The Teacher as an Inquiring Professional III. Measurement, Diagnosis and Evaluation (3)

Prerequisite: Admission to Teacher Education Program

This course will address two broad themes. The first source of inquiry is on how multiple dimensions of human intelligence can be assessed both formally and informally with an emphasis on how all persons manifest certain dimensions of exceptionality. The second focus is on how different cultures specifically influence manifestations of appropriate academic behaviors; the shift here is from assessments of individual pupils to analyses of individuals and groups in specific cultural contexts.

EDUC 320 Interdisciplinary Teaching Methods I: Language Arts, Math & Science (7)

Prerequisite: Admission to Teacher Education Program
This course will incorporate the general knowledge base for teaching and will accent student cognition and conceptual learning. Problem-solving and inquiry as essential methods will be emphasized not only in science and mathematics but as a basic facet of the language arts as well. Content specific methods, patterns of instruction, general methods and diagnostic techniques will be facilitated in a laboratory context and practiced in structured field experiences. Inquiry and reflective activities will focus planning and action not only on technical competence but also upon the moral and ethical intentions and consequences of classroom thinking, actions, and conditions.

EDUC 340 Foundations and Competing Epistemologies II (1)

Prerequisite: EDUC 240
Sequentially building upon the critical theory perspective undergirding the previous course, this second course examines the moral and ethical dimensions of teaching. Logical analysis of instructional plans and microteaching experiences will be the major tool for inquiry.

EDUC 410 The Teacher as an Inquiring Professional IV: Problem-Solving and Critical Thinking (2)

Prerequisite: EDUC 310
In this course, students will practice decision-making strategies and the application of problem analyses to diagnose problems in teaching and schooling. Furthermore, students will assume techniques useful to the translation and consumption of research findings into the everyday practice of schooling. Finally, students will engage in research report writing and will attain skills in reporting the nature of their action research projects.

EDUC 420 Interdisciplinary Teaching Methods II: Reading and Social Science (7)

Prerequisite: EDUC 320
This second segment extends the discussion of the knowledge base from effective teaching to effective schooling. In addition to developing a repertoire of content-specific teaching skills, the course will explore the components of classroom ecology: management/discipline models, social organization, and cultural diversity. Students, in laboratory simulations and field experiences in elementary schools, will be asked to demonstrate expertise in extended teaching skills and dispositions as well as to begin the final phases of the development of action research projects.

EDUC 440 Foundations and Competing Epistemologies III (2)

Prerequisite: EDUC 340
This course, to be taken after student teaching, provides an

interpretive framework for students' total professional experience. Students will develop an understanding of the variables of effective teaching, the hidden curriculum, the community's expectations, and the role of the school in the social order. This reflection from a critical perspective will allow students to assume a new and broader conception of schooling, society, and the larger social issues associated with the educational experience.

EDUC 450 Directed Teaching and Seminar (15)

This cumulative experience will require students to apply knowledge, skills and dispositions acquired throughout the program as well as culminating the data collection of their action research project. Students will be expected to bring to bear knowledge from the cumulative foundations and inquiry courses to document in portfolio fashion the nature of the student teaching experience. These experiences will be shared in a weekly proseminar which will be both topical and process-oriented. Student teaching must be completed prior to participation in EDUC 440.

EDUC 460 Senior Action Research (2)

Prerequisite: EDUC 450
This seminar will be a colloquium wherein seniors engage reflectively in dialogue, discussion, and critique of their own and others' research projects. The seminar will be guided by faculty members from across the university who have mentored student researchers as well as teachers from the field who have been coresearchers in the projects. These two hours credit count toward the University's CORE 490 graduation requirement.

Engineering Drawing Courses

ENDR 100 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.

*ENDR 101 Engineering Drawing I (3)

This is a basic course for students who have had little or no experience in engineering drawing. The principle objective is to acquire a basic understanding of fundamental principles 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 102 Engineering Drawing II (3)

Prerequisite: ENDR 101
The purpose of this course is to enable the student to apply basic principles of engineering drawing, which were learned in the previous course, to solve practical problems encountered in 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.

Engineering Technology Core Courses

ETCO 110 Introduction to Engineering Technology (1)

Survey of the role of the engineering technologist in industry. Emphasis on the areas of

electrical/computer, manufacturing, and plastics engineering technologies.

ETCO 210 Occupational Safety and Health (3)

Prerequisite: Sophomore status, GPA 2.0
Industrial safety, occupational health issues, accident prevention, working conditions, provisions and policies of OSHA. Compliance with OSHA regulations. All lecture.

ETCO 310 Fluid Power (4)

Prerequisite: PHYS 201
Laws and principles governing the behavior of gases and liquids under various conditions of pressure and temperature. Pascal's and Bernoulli's principles and applications. Flow of fluids in pipes; measurement of fluid flow. Pneumatic and hydraulic systems (machines and devices). 3 lec. 2 lab.

ETCO 320 Industrial Management (3)

Prerequisite: Junior status, GPA minimum 2.0
A simulated environment will be used to address management issues in production. Manufacturing organizations and management functions. Management styles. Management of human resources, economic resources. Group dynamics, communication, organizational charts, authority. Labor relations and labor law. Industrial supervision. All lecture.

English Courses

Prerequisite: The communication sequence in the General Education Core is prerequisite for advanced courses in English/Humanities.

NOTE: English 111S, 112S, and 115S MUST be taken in sequence, beginning with 111S.

ENGL 111S Discourse and Composition (4)

An introduction to discourse in both public and academic settings.

ENGL 112S Composition and Research (4)

An introduction to the relationships between research and composition.

ENGL 115S Composition and Literature (4)

An introduction to the genres of literary discourse and to critical analysis.

ENGL 120 Vocabulary Expansion (2)

This is a non-developmental course intended primarily to enhance the vocabulary skills of students with a reasonable range of existing vocabulary.

ENGL 121 Technical Writing (3)

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, resumes, and specifications. BECAUSE OF THE TEXTBOOK AND SPECIFIC WRITING

ASSIGNMENTS, THIS COURSE IS NOT OPEN TO LIBERAL ARTS STUDENTS.

ENGL 200 Introduction to Literature (4)

An analysis of selected literary works which aims to develop reading and interpretive skills and to familiarize students with the language of literary study.

ENGL 204 Comparative Literature I (4)

Prerequisite: 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 205 Comparative Literature II (4)

Prerequisite: 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 206 Comparative Literature III (4)

Prerequisite: 4 hrs. above 100. Selected literary works provide background for and examples of modern writing in today's world.

ENGL 211 Survey of English Literature I (4)

Survey of the development of English literary traditions from the Medieval Period through the eighteenth century.

ENGL 212 Survey of English Literature II (4)

Survey of the development of English literature beginning with the Romantics and moving into contemporary writers and works.

ENGL 222 Business Writing (4)

A study of writing skills essential to the business world with special emphasis on the practical application of those skills to "real world" writing tasks.

ENGL 225S Civilization and Literature I (4)

This is the first of a three-course sequence designed to introduce students to western, American, and non-western cultures. This sequence will focus on a variety of themes while providing a chronological examination of texts, thoughts, people and events important to the development of human kind.

ENGL 226S Civilization and Literature II (4)

A continuation of ENGL 225S.

ENGL 227S Civilization and Literature III (4)

A continuation of ENGL 226S.

ENGL 232 Creative Writing (Poetry) (3)

A poetry writing course in which conventional, blank, and free verse are taught. Techniques of poetic expression are taught in this course.

ENGL 240 Screenwriting (3)

An introduction to the elements of screenwriting. Students will

develop a screen adaptation of a published fictional work as well as study important distinctions between visual and linguistic art forms.

ENG 245 Creative Writing (Fiction) (3)

An introduction to the elements of fiction writing. Students will critique their own manuscripts as well as study selected works of published writers.

ENGL 250 Advanced Composition (4)

Develops expository and narrative writing skills through practice and the intensive evaluation of professional prose.

ENGL 251 Survey of American Literature I (4)

Study of major works and major authors from the Colonial Period through American Romanticism.

ENGL 252 Survey of American Literature II (4)

Study of major works and major authors from the Age of Realism to the twentieth century.

ENGL 273 Modern American Poetry (4)

Study of themes and forms prevalent in modern American poetry.

ENGL 300 Children's Literature (4)

Readings in literature that appeals specifically to elementary students.

ENGL 301 Shakespeare (4)

Intensive study of several of Shakespeare's plays.

Representative samples of histories, tragedies, or comedies will be studied.

ENGL 311 Major English Authors (Before 1800) (4)

A variable content course which focuses on one or two authors for the purpose of carefully analyzing their works and detailing their development as writers.

ENGL 312 Major English Authors (After 1800) (4)

A variable content course which focuses on one or two authors for the purpose of carefully analyzing their works and detailing their development as writers.

ENGL 315 Theory and Practice in Composition (4)

Study of varied methods and strategies for teaching composition with special attention on classroom application for teachers.

ENGL 321 The English Novel (4)

A variable content course which examines the emergence and development of the English novel.

ENGL 322 Modern English Drama (4)

Study of the developments in English theater in the twentieth century.

ENGL 332 Poetry Workshop (3)

An advanced poetry writing course with a major emphasis placed on critiquing the writing of the students in the class for the sake of successfully marketing their work.

ENGL 341 Literature of Initiation and Experience (4)

Study of literary works which detail growth and development of character.

ENGL 342 Women in Literature (4)

Study of works by and about women.

ENGL 343 Black Authors (4)

Study of works about the Black experience.

ENGL 344 Literature of Appalachia (4)

Exploration of southern Appalachian experience in literature. Includes works by authors past and present who are themselves products of the region or who have focused on the region in their prose or poetry.

ENGL 345 American Folklore (4)

Introduction to the methodology of folklore study, including forms, approaches, and variety of American folk expression among American folk groups. Emphasis, for comparative study, on the southern Appalachian folklore region.

ENGL 346 River Literature (4)

Study of literary works in which rivers are central factors influencing experience.

ENGL 347 Literature of Aging (4)

Study of a variety of literary forms in which the experience of aging is analyzed.

ENGL 348 Death and Dying (4)

Study of a variety of literary forms in which the experience of dying is analyzed.

ENGL 349 Regional American Literature (4)

A variable content course which studies literary works which are distinct to a region and which provide a social perspective unique to a particular time and place.

ENGL 351 Major American Authors (4)

Intensive study of one or two major authors to provide a detailed understanding of works, thought and literary development.

ENGL 360 Nature of Language (4)

An introduction to the fundamental properties and processes of the world's languages; the course reviews the major systems and features which constitute language and, in addition, discusses language change, typology, and aspects of language acquisition.

ENGL 362 Patterns of English (4)

Suggested prerequisite: ENGL 360
The course surveys various components of English phrase, clause and sentence structure, and examines questions of usage.

ENGL 365 The History of English (4)

Suggested prerequisite: ENGL 360
The course consists of a survey of

the patterns and events which have shaped the English language from the time of the Anglo-Saxon to the present.

ENGL 371 The American Novel (4)

A variable content course which examines the emergence and development of the American novel.

ENGL 372 Modern American Drama (4)

A variable content course which may focus on particular themes, authors, or "schools" of dramatic representation.

ENGL 380 Fundamentals of Rhetoric (4)

Study of both ancient and modern theories of rhetoric.

ENGL 381 Fundamentals of Criticism (4)

Study of both ancient and modern theories of criticism.

ENGL 382 Political Literature (4)

Study of the ways in which texts affect society.

ENGL 383 The English Teacher and Society (4)

Analysis of the role of the English teacher in modern society, of the philosophies which underlie various methods of English teaching, and of the rationales for choosing various texts and methods.

ENGL 384 Literacy (4)

Analysis of the role of the reader in generating meaning in a text.

ENGL 401 Medieval English Literature (4)

Literary and linguistic analysis of Middle English poetry and prose.

ENGL 411 16th Century Renaissance Literature (4)

Study of the major works of selected authors such as More, Sidney, Spenser, Marlowe, Shakespeare, Wyatt, Surrey, and others.

ENGL 421 17th Century Poetry and Prose (4)

Study of the major works of selected authors such as Bacon, Carew, Cowley, Donne, Herrick, Jonson, Marvell, Webster, and Milton.

ENGL 431 Restoration and 18th Century English Literature (4)

Study of selected works of Restoration dramatists as well as 18th century drama, poetry, and prose.

ENGL 441 The Romantics (4)

Study of the poetry and prose of major Romantic writers, including Blake, Wordsworth, Coleridge, Shelly, Byron, and Keats.

ENGL 446 The Victorians (4)

Study of English poetry and prose from 1830 to 1900.

ENGL 451 20th Century English Literature (4)

Study of major works, writers, and genres of the 20th century.

ENGL 460 Topics in Linguistics (4)

Prerequisite: ENGL 360 and 365, can be taken more than once when different themes are offered.
Senior seminar in selected topics in linguistics: for example, linguistics and literature, social aspects of language, psychological aspects of language, varieties of English, English as a second language, Black English (including Pidgin and Creole).

ENGL 461 19th Century American Literature (4)

Intensive study of major authors and works of the nineteenth century.

ENGL 471 20th Century American Literature (4)

Intensive study of major authors and works of the twentieth century.

Finance Courses

FINA 201 Principles of Finance (3)

Prerequisite: ECON 102 and ACCT 103 or ACCT 210
A study of the forms of business organization; cash flow projections; budgeting and financial planning; and analysis of financial statements.

FINA 204 Investments (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.

FINA 304 Investments (4)

Prerequisite: ECON 102 and ACCT 103 or ACCT 210
A study of various investment alternatives and the general and specific information that must be considered before thought is directed toward specific industries and businesses. Included is the study of the tools and sources needed for analysis in making wise investment decisions.

FINA 311 Financial Statement Analysis (4)

Prerequisite: ACCT 103 or ACCT 210
A detailed study involving the analysis and interpretation of financial information contained in financial reports of various entities including measurements of the firm's profitability, solvency, and degree of safety.

FINA 345 Managerial Finance (4)

Prerequisite: MGT 310 and ACCT 210
An analysis of financial information for the purpose of facilitating the planning, organizing and controlling functions of managment. Includes financial statement analysis, budgeting, concepts of present and future value, cash flow analysis and capital budgeting decisions.

FINA 481 International Finance (4)

Prerequisite: FINA 345
This course surveys the institutions, methods, instruments,

and procedures involved in international finance including the nature of the foreign money market, foreign legal and tax environment and foreign subsidiary operations.

French Courses

FREN 111 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.

FREN 112 Elementary French II (4)

Prerequisite: FREN 111
Continuation of French 111.

FREN 113 Elementary French III (4)

Prerequisite: FREN 112
Continuation of French 112.

FREN 211 Intermediate French I (4)

Prerequisite: FREN 113
Includes an intensive review of grammar and sentence structure and introduces the student to selected readings in French literature. Oral expression is stressed.

FREN 212 Intermediate French II (4)

Prerequisite: FREN 211 or instructor approval.
Continued intensive review of grammar. Sight translation is stressed. Conversational drills include advanced idiomatic expressions.

FREN 213 Intermediate French III (4)

Prerequisite: FREN 212 or instructor's approval
Advanced vocabulary and sentence structure are stressed. Emphasis is on writing and free composition.

Geography Courses

GEOG 101 Environment and Man (4)

Discusses issues of resource management, water and air pollution, solid wastes, energy, land use planning, wilderness, population pressures, interaction of ecosystems.

GEOG 125 World Geography (4)

Concerns world's regions, nations, and continents, resource use, culture groups and political patterns. Designed to develop an understanding of world affairs and the applications of geography in general.

GEOG 130 Economic Geography (4)

Systematic survey of locational economic patterns and their interrelationships.

GEOG 201 Cultural Geography (4)

Impact of various cultures on landscape; distribution of culture traits, ecological adaptations and culture areas throughout the world.

GEOG 225 Physical Geography (4)

Systematic survey of earth-sun relationships, land forms, climate, soils, and natural vegetation.

GEOG 230 Urban Geography (4)

Study of city function, patterns, past and current problems confronting the city including planning, zoning, housing, and urban renewal.

GEOG 242 Geography of Ohio (4)

Detailed regional study of physical background, settlement and economic development.

GEOG 243 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. Offered as demand indicates.

GEOG 295 Special Topics in Geography (4)

Prerequisite: GEOG 101, 125, 130, or 201
Individual or small group study under the supervision of instructor on topics not otherwise available to students.

GEOG 295A Medical Geography: Geography of Life or Death

Relationship between disease and the physical and socio-economic environ. Topics include disease ecology, historical patterns of cholera and plague, tropical disease, weather and health, cancer and heart disease in the United States, hunger and the environment, distribution of resources and introduction to facilities location planning.

GEOG 295B Geography of Air Pollution

Examination of air pollutants and their social and economic impacts, control strategies and air pollution planning.

GEOG 350 Regional Geography: Geography of North America (4)

The United States and Canada studied from a geographical perspective including detailed examination of climate, soil, vegetation, minerals, water resources, historical development, settlement patterns and economic aspects of the region.

GEOG 495 Special Topics in Geography (1 to 4)

Prerequisite: GEOG 101
Individual or small group study under supervision of instructor on topics not otherwise available to students.

Geology Courses

GEOL 101 Rocks, Minerals, and Fossils (4)

Introduction to Earth materials. Strong emphasis on identification of rocks, minerals, and fossils. Lecture topics include several key Earth processes and important geologic theories. Course includes laboratory assignments and a field trip to fossil localities near Portsmouth. Course is not available to students who have successfully completed Geology 201.

GEOL 112 Environmental Geology (4)

Analysis of complex interaction between Earth and man. Emphasis

on natural hazards such as floods, earthquakes, volcanic eruptions; waste disposal; groundwater, mineral, and energy resources. Course includes laboratory assignments and a field trip to abandoned strip mines in southern Ohio.

GEOL 201 Physical Geology

Introduction to Earth materials and the processes that shape the Earth's surface. Emphasis on identification of rocks and minerals; important Earth processes such as volcanism, weathering, glaciation, and earthquakes; and theories which have modified our explanation of geologic phenomena. Course includes laboratory assignments and a field trip to Hocking Hills.

GEOL 202 Historical Geology (4)

Prerequisite: GEOL 101 or 201.
The history of the Earth and its inhabitants. Emphasis on major physical and biological events that have profoundly affected the Earth; on causal mechanisms of geological events; and on the theories that have changed our interpretation of the earth's history. Course includes lecture, lab, and field trip to localities in eastern Ohio.

GEOL 301 Invertebrate Paleobiology (4)

Prerequisite: GEOL 202 or by instructor's permission.
An introduction to major groups of invertebrates that are commonly preserved in rocks. Emphasis on preservation, morphology, collection, and geological and biological significance of invertebrate micro-and megafossils.

GEOL 303 Sedimentary Rocks (4)

Prerequsitie: GEOL 202 or by instructor's permission.

Advanced study of siliciclastic and carbonate rocks. Emphasis on interpretation of depositional environments of sedimentary rocks by using modern analogues.

GEOL 395 Special Topics in Geology (1-4)

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

GEOL 401 Field Methods (4)

Study and use of the essential methods of field observations, description, and mapping. Course will consist of lecture and detailed field projects in the Portsmouth area.

GEOL 485 Senior Project (1-4)

Prerequisite: Junior or Senior level standing
Indepth study of a selected topic in geology, culminating in the preparation of a senior paper.

GEOL 490 Seminar in Geology (1-4)

Prerequisite: Junior or Senior level standing
Discussion of advanced topics in geology.

GEOL 495 Independent Study (1-4)

Independent geological investigation under the direction of a faculty member.

Government Courses

GOVT 101 National Government (4)

Constitutional basis and development; political processes,

structures, and functions of the national government.

GOVT 102 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 203 Politics in the American States (4)

Prerequisite: GOVT 101 or 250
Comparative analysis of state political systems, emphasis on structure and process of policy making of the states within the federal context.

GOVT 250 Introduction to Political Science (4)

This course describes the nature of the discipline, explains some of the approaches political scientists take in studying politics, and offers introductory treatments of certain major topics, such as political ideologies, political economy, the constitutional and legal framework of nation states, governmental institutions, and international relations. *Required course for all social science majors.*

GOVT 295A Special Topics in Government (1-4)

Prerequisite: GOVT 101, 102 or 250
Individual or small group study under supervision of instructor on topics not otherwise available to students.

GOVT 303 The United States in World Affairs (4)

Prerequisite: GOVT 101 or 250
This course introduces students to some major world political, military, and economic problems confronting the United States. The course examines the historical development and current status of these problems.

GOVT 350 Urban Politics (4)

Prerequisite: 101 or permission
Impact of urbanization on structure and functions of municipalities; emphasis on utilization of the political processes to resolve community conflict.

Health, Physical Education and Recreation Courses

HPER 103 Introduction to Human Nutrition (2)

Study of nutrients, nutritional diets and deficiencies and the role of nutrition in promoting health.

HPER 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 Condit. & Wt. Train.
110-F Begin. Golf
110-G Intermed. Golf
110-H Caving
110-I Karate
110-J Billiards
110-K Dance
110-L Canoeing
110-M Begin. Tennis
110-N Intermed. 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 Intermed. Swimming
110-X Life Saving
110-Y Jogging
110-Z Diving
111 Advanced Tennis
111-A Begin. Racquetball
111-B Intermed. Racquetball
111-C Adv. Racquetball
111-D Walleyball
111-E Cont. & Wt. Train. Naut.
111-F Yoga
111-G Sailing
111-H Advanced Yoga
111-I Judo
111-J Women's Self Defense
111-O Water Volleyball
111-U Life Guard Training
111-V Fitness Swimming
111-W Swimmercize
111-X Water Safety Inst.
111-Y Adv. Swimming
112 Aerobic Dance/Swim
112A Handball

HPER 200 Introduction to Recreation

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. 3 lec. 3 lab.

HPER 202 Personal & 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 203 Human Nutrition (4)

A study of nutrients to include sources, composition, function, and metabolism in the human body. The human life cycle is considered in planning appropriate diets.

HPER 220 Introduction to Athletic Training (3)

Introduction to prevention, treatment, care, and rehabilitation of athletic injuries.

HPER 227 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 234 Laboratory Experience in Physical Education (2)

Prerequisite: P.E. Majors. Observation and research in physical education in the elementary and secondary levels.

HPER 235 Orientation to Recreation Employment (1)

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.

HPER 236 Field Experience in Recreation (2-6)

Designed to provide the recreation student with a supervised work experience while gaining skills and knowledge in the field of recreation.

HPER 239 Athletic Officiating—Football (3)

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 240 Athletic Officiating—Basketball (3)

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 241 Athletic Officiating—Baseball (3)

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 250 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 255 Aquatic Recreation Leadership (4)

Study of water-related recreational facilities such as marinas, swimming areas, and fishing. Consideration will be given to boating laws, boat operation and safety, and all forms of water recreation. 2 lec. 6 lab.

HPER 260 Outdoor Recreation (4)

Prerequisite: permission of instructor or concurrent with 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.

HPER 261 Introduction to Physical Education & Health (2)

Prerequisite: P.E. Majors/Minors Lectures, discussion, and visual aids pertaining to scope and content of a professional physical educator.

HPER 270 Physical Education for the Elementary Classroom (4)

Lab and lecture experience 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 281 Admin. of Intramural Athletics (4)

Prerequisite: Ed. & P.E. Majors/Minors.
Organizing and administering a program of intramural sports for all age levels. Designed especially for elementary and secondary teachers.

HPER 295 Independent Study (2)

Prerequisite: P.E. Majors
Study, observation and research in selected physical education fields. Under the direction of HPER faculty member.

HPER 360 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.

History Courses

One introductory American history course is required for all Social Science majors.

HIST 150 History of the United States; The Formative Period (4)

A survey of United States history through 1865.

HIST 151 History of the United States: The Modern Period (4)

A survey of United States history since 1865.

One Western Civilization course is required for all Social Science majors.

HIST 201 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 202 Western Civilization from the Renaissance to the French Revolution (4)

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

HIST 203 Western Civilization from 1815 to 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 225S Civilization and Literature (4)

Cross-listed as English 225S. *Part of general education core requirement.* This is the first of a three-course sequence designed to introduce students to western, American, and non-western cultures. This sequence will focus on a variety of themes while providing a chronological examination of texts, thoughts, people, and events important to the development of human kind.

HIST 226S Civilization and Literature (4)

Cross-listed as English 226S. *Part of general education core requirement.* A continuation of HIST 225S.

HIST 227S Civilization and Literature (4)

Cross-listed as English 227S. *Part of general education core requirement.* A continuation of HIST 226S.

HIST 250 Historical Methods Seminar (4)

An introduction to historical research and writing.

HIST 260 East Asian History (4)

A survey of the history of China and Japan.

HIST 301 Formation of the American Nation (4)

A history of the formative period between 1750 and 1815. The causes of the American Revolution, both British and Colonial; internal consequences of the Revolution; creation of the Constitution and the American republic in the Federalist and Jeffersonian eras; diplomacy of a new nation.

HIST 305 History of Modern America (4)

A survey of domestic history from the New Deal to the present. The Great Depression and the New Deal; domestic consequences of World War II and the Cold War; reform efforts of the 1960's; Vietnam trauma; exhaustion of liberalism in the 1970's.

HIST 310 History of American Foreign Relations (4)

A survey of U.S. foreign relations in the twentieth century. Hemispheric imperialism; World War I and the Versailles Treaty; inter-war non-entanglement; World War II; Cold War.

HIST 325 History of Russia (4)

A concise overview of modern Russia, with an emphasis on the post-Crimean War era. Reform efforts; abolition of serfdom; industrialization; collapse of the empire in World War I; the Soviet experiment; World War II; East-West confrontation.

HIST 330 History of Southern Africa (4)

A survey of the African and European experiences in southern Africa from the seventeenth century to the present.

HIST 335 History of the Modern World (4)

An overview of the major events and trends that have shaped the modern era. The modern Thirty Years War; Marxist regimes in Russia, China and Cuba; the Cold War and the arms race; European decolonization and the rise of Third World Nationalism; development of a global economy.

HIST 340 History of Medicine I (4)

The history of medicine from antiquity to approximately A.D. 1500. This course will examine the influence of disease on history, it will trace the development of medical theories, and it will examine the treatments formerly used by medical personnel.

HIST 341 History of Medicine II (4)

The history of medicine from A.D. 1500 to the present. This course will trace the emergence of modern medicine and will examine the achievements and errors of medical pioneers.

HIST 410 Intellectual History I (4)

An in-depth analysis of the Western intellectual tradition during the ancient and medieval periods. Special emphasis will be placed on philosophy, religion, science, and mathematics.

HIST 411 Intellectual History II (4)

An in-depth analysis of the Western intellectual tradition from the Renaissance to the present. This course will trace the main currents of modern thought, and topics will include Protestantism, romanticism, Marxism, and Darwinism.

HIST 495A Special Topics in History (1-4)

Prerequisite: HIST 150,151 or Western Civilization 201, 202, 203
Individual or small group study under the supervision of instructor on topics not otherwise available to students.

Humanities Courses

HUMM 201 Tradition of Great Books (4)

Classics of ancient Greek, Roman and Hebrew are studies 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.

HUMM 202 Tradition of Great Books (4)

Classics studied are from the ancient world, the middle ages, the age of reason, and the Romantic period.

HUMM 203 Tradition of Great Books (4)

Classics of the ancient world, the middle ages and writings of more recent times including the present are studied.

Instrumentation Technology Courses

*IMST 101 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.

*IMST 102 AC Circuits and Machines (4)

Prerequisite: IMST 101
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.

*IMST 103 Industrial Electricity (3)

Prerequisite: IMST 101 and 102
This course is designed to

familiarize the student with the National Electrical Code, and with practice used in industry to install conduit, conduit fittings, electrical conductors, switching equipment, overload protection and equipment.

IMST 111 Industrial Electronics (4)

Prerequisite: IMST 101, 102
This course is designed to familiarize the student with industrial electronic circuits and includes bipolar electronic devices, amplifiers, DC power supplies and integrated circuits.

IMST 120 Process Instrumentation (4)

Introduction to measurement and control systems for temperature, pressure, and fluid flow. Dynamic response characteristics of instruments and calibration methods. This is an introduction to transducers, transmitters, controllers, and control systems. It contains both electrical and pneumatic systems.

IMST 185 Instrumentation Internship (6)

The student will be working with an industry for eleven weeks of supervised work experience. Supervisory visits will be conducted by the instructor. The industry will make periodic evaluations to critique the performance of the student. The instructor will check with the company regarding the progress of the student. The internship must be directly related to the field of study.

*IMST 201 Instrumentation Electronics (5)

Prerequisite: IMST 111
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, input and output transducers, recording devices, ultrasonics, mechanical linkages, synchros, positions detectors and controls, carrier current transmission, telemetering and remote control.

*IMST 202 Programmable Controllers I (4) (5 lab hours)

Prerequisite: IMST 111
The student is introduced to basic industrial control circuits and schemes using the programmable controller as a control device. The student will be instructed on the proper methods of programming the controller for the desired scheme.

*IMST 203 Programmable Controllers II (4) (5 lab hours)

Prerequisite: IMST 111 and advisor approval
This is a continuation of Programmable Controllers I. This course will teach the student more advanced control using the controller as a programmable controller. The student will learn the proper methods of interfacing the programmable controller to the controlled device and peripheral devices.

IMST 211 Fluid Mechanics I (4)

Prerequisite: Math 101, Physics 201
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 pneumatics and hydraulic machines and devices.

IMST 212 Fluid Mechanics II (4)

Prerequisite: Math 211
This is a continuation of Fluid Mechanics I and stresses the application of working formulas such as the Bernoulli and momentum equations as they relate to the physical properties of gases and liquids; the flow of fluid force; and the calculation of pipe sizes, pressures developed, and pump deliveries.

IMST 221 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.

IMST 222 Instrument Fundamentals II (4)

Prerequisite: IMST 221
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.

IMST 223 Measurement Principles (4)

This course teaches the student the industrial methods of measuring pressure, temperature and flow with various types of gauges and other devices. It includes the basic theory of operation, construction, installation, normal care of gauges, manometers, thermometers and other precision equipment.

IMST 224 Industrial Control I (4)

Prerequisite: IMST 221, 211
The student is introduced to basic industrial control circuits and schemes. This course includes pneumatic, hydraulic, electrical, and electronic control.

IMST 225 Industrial Control II (4)

Prerequisite: IMST 224
This course teaches the student the procedures of using a process control computer to configure eight PID loops and sequential operations.

Journalism Courses

JOUR 105 Introduction to Mass Communication (4)

Introduces all forms of mass communication including newspapers, magazines, radio-television, book publishing, public relations, advertising and photojournalism. Begins with an analysis of the communication process and ends with media career opportunities.

JOUR 231 News Reporting and Writing (4)

Prerequisites: Typing proficiency.
Methods of gathering and evaluating news and writing news stories. Practice work includes covering assignments and writing news copy.

JOUR 289 Magazine Feature Writing (4)

The course covers writing and marketing freelance magazine articles of various types including personal narrative, informative, how-to, historical, personality sketch, investigative, and interpretative. Students learn how to generate ideas, get photos, propose article ideas to editors and survey regional and specialty magazine markets.

JOUR 290A Topics in Journalism (3)

Study of various topics in journalism not otherwise available to students, including photojournalism, public relations, etc.

JOUR 290B Topics in Journalism (3)

Study in various topics in journalism not otherwise available to students.

ARTS 280A, ENGL 290A (2)

Working on the student newspaper, *The Open Air*, for course credit.

ARTS 290B, ENGL 290B (3)

Working on the student newspaper, *The Open Air*, for course credit.

Management Courses

BMNT 101 Introduction to Business (4)

A survey course of the basic functions of American business, with an emphasis upon the responsibility of business 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. (Not open to Juniors and Seniors.)

BMNT 201 Management Concepts

An introductory course in 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 intregral concepts in performing the management functions.

BMNT 202 Personnel Management (4)

The philosophy, principles, and methods of personnel management; stressing human resource planning, recruiting, selection, placement, training, evaluation, wage and salary administration, and benefit programs.

BMNT 241 Labor Relations (4)

This course is concerned with collective bargaining, contract or labor agreements, workers' compensation laws, apprentice training, and jurisdictional disputes.

BMNT 242 Business Communications (4)

Principles and techniques of effective letter writing; letter mechanics; writing of personal business letters including

application letters; methods of writing business reports and letters--internal and external reports as a means of communication.

MGNT 310 Management Principles (4)

Prerequisite: ACCT 210, ECON 101 and 102
A study of the fundamental principles of management emphasizing the managerial functions, basic concepts of systems, decision making processes, organizational theory and behavior, and its effect on management.

MGNT 330 Organizational Communication (4)

Prerequisite: Junior rank.
A study of the communication demands and skills relevant to the student's future role as a business or professional person. Organizational communication focuses on principles and techniques involved in organizing ideas, writing effective business letters and reports, and oral communication.

MGNT 335 Human Resource Management (4)

Prerequisite: MGNT 310
The study of the principles and practices of recruiting selecting, training, developing, compensating, and maintaining a productive employee group through systematic human resource management planning consistent with government regulations. Attention is also given to grievance and disciplinary procedures, and the challenge of collective bargaining.

MGNT 350 Organizational Behavior (4)

Prerequisite: MGNT 310
An examination of the human problem found in organizations with emphasis on the person who is responsible for the performance of others within an organization. Topics such as job satisfaction, leadership styles, people at work, basic attributes of organizations, organizational design, and job design are studied.

MGNT 355 Quantitative Methods in Business (4)

Prerequisite: MATH 201, 255, MGNT 310, and AISM 101
A study of the quantitative tools and techniques applied to business decision making including decision analysis, forecasting, linear programming, quality control, inventory and layout models. Includes the use of standardized computer programs and development of analytical models to aid in the solution of management problems.

MGNT 385 Production/ Operations Management (4)

Prerequisite: MGNT 310 and 355
An overview of production and operations management including procedures and techniques generally employed in both manufacturing and non-manufacturing organizations. The course will include an examination of such topics as capacity planning, inventory systems, plant decisions, and operations decisions.

MGNT 480 Business and Society (4)

Prerequisite: Senior rank and Business major.

A case oriented course designed to study the social problems facing business organizations. Key concepts covered will be culture, law, ethics, social norms, corporate and business relations, and models of human value.

MGNT 485 Business Policy and Strategy (4)

Prerequisite: Senior standing and Business major.
A case oriented course designed to develop skills in the integration of interdisciplinary areas as applied to problems in business. The course consists of both written and oral presentation of case problems.

Marketing Courses

BMNT 102 Marketing Concepts (4)

A study of marketing fundamentals, consumption and consumer behavior, retailing and wholesaling structures; the functions performed in marketing, marketing policies and a critical appraisal of the field of marketing.

MRKT 310 Marketing Principles (4)

Prerequisite: ECON 101 and 102
A study of the marketing principles, concepts, strategies, and analytical methods used by organizations to market products, services, and ideas in dynamic environments. Emphasis on identifying marketing opportunities, defining target groups and developing appropriate products; promotion distribution and pricing strategies for selected markets.

Mathematics Courses

Three Track System in Mathematics for Engineering Technology Students

MATH 099 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 algebraic expressions, solutions to simple equations, graphs and formula rearrangements. (Does not count toward a degree).

MATH 101 Basic Algebra (4)

Prerequisite: Placement or Math 099
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 105 Plane Geometry and Algebra (4)

Prerequisite: Placement or MATH 101
This course is for students with a good background in algebra but little or no background in geometry. It includes work with graphing; proof and logical thinking; problem-solving; measurement; area, perimeter, and volume of common geometric figures; properties of lines and polygons; and additional

work at a more advanced level with algebra including work with geometrically related topics.

MATH 110S Math in Society (Core Course) (4)

Prerequisite: Placement or Math 105
This course gives students the chance to apply mathematics to the real world. Areas of application will be measurement, geometry, probability, statistics, and finance. Emphasis will be placed on improving problem-solving skills. 3 lec. 1 discussion.

MATH 120 Elementary Topics in Math I (5)

Prerequisite: MATH 110S
Problem solving; sets; concepts of logic; binary operations; systems of numeration; number theory; rational numbers, real numbers, measurement. Use of calculators and computers.

MATH 121 Elementary Topics in Math II (5)

Prerequisite: MATH 120
Basic algebraic work with equations and inequalities in one unknown; systems of equations; metric and nonmetric geometry; coordinate geometry; introduction of statistics and probability; problem solving; computer use.

MATH 125 Business Mathematics (4)

Prerequisite: MATH 101
Work includes an emphasis on estimating answers; percentages; applications in the personal and business world including reconciliation of a checking account, markup, taxes, depreciation, payroll and payroll deductions, inventory evaluation, financial statements, simple and compound interest on investments and loans. Use of calculators.

MATH 130 College Algebra I (4)

Prerequisite: Placement or MATH 105
Integers: powers of ten; scientific notation; review of algebraic expressions and operation; linear equations in one and two variables, including graphing; exponents and radicals; right triangle trigonometry; Law of Sines and Law of Cosines applications; functions.

MATH 131 College Algebra II (4)

Prerequisite: Placement or MATH 130
Quadratic quadratic equations, identification and approximation of roots; complex numbers; exponents and logarithms; binomial expressions and progressions.

MATH 132 Trigonometry and Analytic Geometry (4)

Prerequisite: Placement or MATH 131
Solving inequalities, linear and quadratic; graphing trigonometric functions; polar coordinates; trigonometric equations; a study of the basic properties of conic sections.

MATH 150 Principles of Statistics (4)

Prerequisite: MATH 101
An introduction to the vocabulary, concepts, formulas, and presentation of statistics as applied to business, education and science. Measures of central tendency and dispersion;

probability applied to joint probability tables and Bayes' Theorem; probability distributions with emphasis on Binomial, Poisson, and Normal; sampling practices and theory; interval estimation and hypothesis testing. Calculator and computer use in student project applications.

MATH 201 Calculus I (4)

Prerequisite: Placement or MATH 131
Functions and limits, properties of differentiation and applications of derivatives.

MATH 202 Calculus II (4)

Prerequisite: MATH 201
Integration of algebraic functions and applications. Differentiation and integration of exponential, logarithmic, trigonometric and hyperbolic functions.

MATH 203 Calculus III (4)

Prerequisite: MATH 202
Techniques of integration, improper integrals, Taylor's Formula, plane curves, and polar coordinates and infinite series.

MATH 204 Calculus IV (4)

Prerequisite: MATH 203
Vectors, vector functions, partial derivatives, multiple integrals, topics in vector calculus.

MATH 230 Linear Algebra (5)

Prerequisite: MATH 130 and 131
Solutions to linear systems, matrices and matrix algebra, determinants, n-dimensional real vector spaces and subspaces, linear mappings, diagonalization. Techniques and computational skills emphasized.

MATH 250 Statistics I (4)

Prerequisite: MATH 150
Applications of probability distributions with emphasis on Binomial, Poisson, and Normal and of hypothesis testing for one and two population means and variances; tests of goodness of fit and independence; experimental design and analysis of variance. Calculator and computer use of SPSS in student project applications.

MATH 255 Statistics II (4)

Prerequisite: MATH 130 and 250
Applications of experimental design and analysis of variance, nonparametric tests, linear regression and correlation, multiple regression, time series analysis and forecasting, decision theory. Computer use of SPSS in student project applications.

MATH 290 Seminar in Mathematics (1-4)

Discussion of topics in mathematics.

MATH 295 Special Topics in Mathematics (1-4)

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

MATH 301 Ordinary Differential Equations (4)

Prerequisite: MATH 203
An introduction to ordinary differential equations with emphasis on technique and application. Topics include existence, uniqueness, first order equations, linear differential equations, and systems. Analytical and numerical methods including computer use are studied.

MATH 310 Abstract Algebra (5)

Prerequisite: MATH 203
Introduction to algebraic structures, including semi-groups, groups, rings, integral domains, and fields.

MATH 320 Foundations of Geometry (4)

Prerequisite: MATH 202
Introduction to axiomatic mathematics through a variety of geometry types including a consideration of the postulates of Euclid, surface topology, and finite geometry. The development of plane Euclidean and non-Euclidean geometries will be done using appropriate models and the consideration of various geometric configurations.

MATH 330 Real Analysis (4)

Prerequisite: MATH 203
Topics include sequences, compactness, completeness, continuity, series, convergence, differentiation, mean-value theorems, and Riemann integration.

MATH 335 Intermediate Analysis (5)

Prerequisite: MATH 203
Indepth study of limits, continuity, and differentiation of functions of one real variable with computer applications.

MATH 410 Modern Algebra (4)

Prerequisite: MATH 203, 230 and 310
Groups: permutations, normal, quotient, etc.; conjugate classes and class equation formula applications; homomorphisms; rings.

MATH 420 Matrix Theory (4)

Prerequisite: MATH 203
Matrix algebra, determinants, solutions of linear systems, matrix functions and applications including linear programming, inner products, diagonalization, generalized inverses and application of differential equations and optimization.

MATH 430 Numerical Analysis (5)

Prerequisite: MATH 203, 301, and EDPT 206
Polynomial interpolation and approximation, numerical methods for matrix inversion, solutions for systems of equations, numerical integration and differentiation, numerical solution to differential equations. Computer use emphasized.

MATH 440 Mathematical Models (4)

Prerequisite: MATH 203
Construction and analysis of mathematical models and their use in investigation of physical, chemical, biological, engineering, statistical, social, and environmental problems. This analysis will be conducted using calculus-based techniques and applicable computer models.

MATH 485 Senior Project (1-4)

Indepth study of a selected topic in mathematics culminating in the preparation of a senior paper.

MATH 490 Advanced Seminar in Mathematics (1-4)

Discussion of advanced topics in mathematics.

MATH 495 Undergraduate Research (1-4)

Independent mathematics investigation under the direction of a faculty member.

Medical Laboratory Technology Courses

MLTC 111 Medical Laboratory Orientation (1)

Introduction to the profession of Medical Laboratory Technology including history, philosophy, development, educational requirements, current trends, role and responsibilities of the medical lab technicians as well as ethics, employment opportunities, certification and licensure, professional organizations, and interpersonal relationships. Basic medical terminology is also presented. 2 lec.

*MLTC 112 Basic Laboratory Skills (4)

Introduction to basic laboratory procedures and techniques. Emphasis will be placed on phlebotomy, microscopy, spectrophotometry, pipetting, use of centrifuges, analytical balances, bookkeeping, lab safety and other basic laboratory instruments. Laboratory mathematics, particularly in solution preparations, dilution, calculation of concentrations and standard curve are included. 2 lec. 6 lab.

*MLTC 201 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 202 Immunoserology (3)

Introduction to basic immunology with emphasis on the principles and applications of serological techniques in diagnostic tests. 2 lec. 3 lab.

*MLTC 203 Blood Banking (4)

Prerequisite: MLTC 202
Lectures and laboratory procedures in blood banking. Principles of blood grouping and human blood groups genetics. Routine procedures for pretransfusion testing, antibody screening and identification. Donor selection, blood collection and processing will be discussed. Hemolytic diseases of the newborn, preparations of blood components, their storage and utilization will also be introduced. 2 lec. 6 lab.

*MLTC 204 Parasitology (1)

Prerequisite: BIOL 235
Introduction to medically important human parasites. Emphasis will be placed on collection, preservation and laboratory identification. 3 lec and lab combined

*MLTC 207 Clinical Microbiology (5)

Prerequisite: BIOL 235
Diagnostic procedures for identification of medically important bacteria and fungi. Emphasis will be placed upon the morphological, cultural, biochemical and serological characteristics of various pathogenic bacteria and fungi. 3 lec. 6 lab.

*MLTC 209 Hematology I (4)

Basic laboratory methods in hematology, including cell counting, hemoglobinometry, cell morphology, etc. Detailed studies of blood cell

Practical Nursing

PNRS 101 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.

PNRS 110 Nutrition (2)

Prerequisite: PNRS 101 & 111
This course is designed to introduce basic nutrition principles to the student practical nurse. Included are the sources and contribution of the various nutrients and the importance of nutrition in health. Diet therapy is introduced by way of modifying a normal diet to meet specific dietary needs.

*PNRS 111 Practical Nursing I (10)

The course is an introduction to the care of the patient with emphasis on the basic nursing principles and skills commonly employed at the bedside. The fundamental, intellectual, interpersonal and psychomotor abilities necessary for health maintenance in the health care system are emphasized.

*PNRS 112 Practical Nursing II (6)

Prerequisite: PNRS 101 & 111
This course is a continuation of Practical Nursing I with additional units included to provide the complete basic fundamentals of skilled practical nursing. The use of the nursing process and importance of correct documentation are emphasized for high quality patient care in the implementation of nursing skills. Specific medical/surgical conditions are studied.

PNRS 113 Practical Nursing III (8)

Prerequisite: PNRS 110, 112, & 115
Medical/Surgical nursing is the focus. Individualized care designed to meet a particular patient's needs is emphasized. Included in this course are the concepts of safe handling and administration of medications.

PNRS 114 Practical Nursing IV (8)

Prerequisite: PNRS 113 & 116
This course is a continuation of Practical Nursing III with additional units to complete basic medical-surgical theory for the beginning practical nurse. Principles of diet therapy and drug therapy are integrated throughout medical-surgical nursing.

PNRS 115 Practical Nursing V (6)

Prerequisite: PNRS 101 & 111
This course examines the stages of growth and development through the childhood years. It envelops the historical changes in pediatric nursing, the common problems/disorders of each state of development, as well as basic needs pertinent to these stages. It is the goal of this course to provide to students, on completion, the ability to plan appropriate nursing interventions for a child of any age.

PNRS 116 Practical Nursing VI (8)

Prerequisite: PNRS 110, 112, & 115
This course explores family-centered maternity/newborn care.

MLTC 221 Clinical Practicum II (3)

Continuation of Clinical Practicum I.

MLTC 225 Special Problems in Med Lab (3)

Review of problems and progress during clinical practicum. Students are required to keep a daily log of the scope and degree of activities in the laboratory. The log book will be filed with the department at the end of the clinical practicum. Students are also required to participate in laboratory inservice activities (and/or professional meetings if possible). Review exercises during the clinical rotation and a four-day Registry Exam review at the end of the internship are included.

MLTC 226 Special Topics in Med Lab (2)

Individualized study of Medical Laboratory Technology in a selected area of interest: laboratory instrumentation, lab management, quality control, laboratory computer, hematology, clinical chemistry, immunology, immunohematology, microbiology, and histology. The selected topic has to be approved by the faculty member and the clinical coordinator. The student is required to do library and/or laboratory studies, and a typewritten report on the topic will be submitted to the department before the end of the clinical practicum.

Military Science Courses

MILS 101 Basic Course Military Science I (2)

Provides an understanding of the military and of useful military subjects to include leadership, customs/traditions of the service, principles of war, National Defense Establishment organizations and role of the Army.

MILS 202 Basic Course Military Science II (2)

Prerequisite: Six hours of Military Science credit or departmental permission
Participation in a management/leadership simulation program, introduction to Army Physical Training Program, participation in first aid/CPR program, and continuation in map and aerial photograph reading.

MILS 210 Land Navigation (2)

Study of military land navigation to include military map reading, use of the compass, land navigation, terrain association techniques, and orienteering.

MILS 211-212 Ranger Operations and Techniques (2)

Provides an overview of U.S. Army Ranger history, organization, and mission. Small unit tactics, leadership, patrolling techniques, marksmanship, rappelling, and land navigation.

MILS 213-214 Military Drill and Ceremonies (2)

Provides an understanding and practical experience in military drill, color guards, and ceremonies.

MILS 216 Military Equipment, Weapons and Marksmanship (2)

Provides an opportunity for practical experiences in the use and handling of military weapons and equipment with an emphasis on marksmanship training.

MILS 217 The Soviet Armed Forces (2)

An introduction to the Soviet Armed Forces, the organization, doctrine, equipment, and the soldier. An insight into the positive and negative influences that affect the Russian soldier of today.

MILS 218 Military Tactics (2)

An introduction to weapons capabilities, the principles of war and military organizations, and basic tactics.

MILS 219 The Military as a Profession (2)

An examination and evaluation of a career as an Army officer. The types of duty, pay and benefits, professionalism, responsibilities, promotion, travel, and education.

MILS 220 Military Leadership (2)

An examination of successful leadership traits, styles, and techniques as they relate to the development of effective military organizations.

MILS 221 Army Physical Readiness Program (1)

A physical training program consisting of Army conditioning drills, exercises, and grass drills.

MILS 251 ROTC Basic Camp (3) (non-resident)

This course is a six-week camp consisting primarily of applicatory training conducted during the summer at Fort Knox, Kentucky. It is designed to replace the first two years of on-campus ROTC training. Students who successfully complete the course are eligible to enter advanced military science training with departmental permission.

MILS 280 A, B, C, Special Topics. 1-4 hrs.

Content will cover various special topics in military science and will vary from quarter to quarter. During the first week of class , students will arrange a project which meets with the approval of the faculty member supervising the course.

Music Courses

MUSI 100 Introduction to Music Theory (3)

Developmental theory course used to make up deficiency. Introduction to staff, pitch, rhythmic notations, chords, ear training.

MUSI 101 Music Theory I (3)

Prerequisite: theory placement exam.
Melodic, harmonic, and rhythmic principles of music and notation.

MUSI 102 Music Theory II (3)

Prerequisite: MUSI 101
Continuation of MUSI 101.

MUSI 103 Music Theory III (3)

Prerequisite: MUSI 102
Continuation of MUSI 102.

MUSI 125 Introduction to Music Literature (3)

Humanities majors. Survey of musical forms, styles and performance media from Gregorian to present.

MUSI 186 University Instrumental Ensemble (2)

Prerequisite: Permission/audition. 4 lab hours.

MUSI 321 Music History and Literature I (3)

Prerequisite: MUSI 103
Study of literature and musical styles to 1600.

MUSI 322 Music History and Literature II (3)

Study of literature and musical styles 1600 to 1850.

MUSI 323 Music History and Literature III (3)

Study of literature and musical styles 1850 to present.

MUSI 361 Teaching Music in Elementary Grades (3)

Prerequisite: MUSI 103
Materials and methods for teaching elementary vocal music.

MUSI 362 Elementary Instrumental Methods (3)

Prerequisite: MUSI 103, 370A, B, C, D, or E

MUSI 370A Applied Voice (2)

Prerequisite: Music minor, permission of instructor.

MUSI 370B Applied Piano (2)

Prerequisite: Music minor, permission of instructor.

MUSI 370C Applied Organ (2)

Prerequisite: Music minor, permission of instructor.

MUSI 370D Applied Woodwind (2)

Prerequisite: Music minor, permission of instructor.

MUSI 370E Applied Brass (2)

Prerequisite: Music minor, permission of instructor.

Nursing Courses

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 101 Nursing I--Fundamentals I (8)

Prerequisite: 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 102 Nursing II--Fundamentals II (8)

Prerequisite: 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 103 Nursing III--Nursing of Adults & Children I (8)

Prerequisite: 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 201 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 202 Nursing V--Mental Health & 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 203 Nursing VI--Trends (2)

Concerns of nursing, past, present, and future are explored. Relationship 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. 2 lec.

ADNR 204 Nursing VII--Nursing of Adults & 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 205 Nursing VIII--Nursing of Adults & Children III (9)

Prerequisite: ADNR 201, 202, 203, 204
Systematically applies 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 211 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.

maturation and development, abnormalities in peripheral blood and in bone marrow with emphasis on red cells and anemias. 2 lec. 6 lab.

*MLTC 210 Hemostasis (1)

Study of hemostatic mechanism and hemorrhagic disorders as well as their laboratory evaluations. 3 lec. and lab combined

*MLTC 211 Hematology II (3)

Prerequisite: MLTC 209, 210
Continuation of Hematology I with emphasis on white cells, leukemias and special procedures in the study of blood diseases. 2 lec. 3 lab.

*MLTC 212 Clinical Chemistry I (4)

Principles, practices and techniques of analyses of chemical components in serum, as well as other body fluids, are studied. Instrumentation associated with specific analyses will be introduced. Emphasis will be placed on the specific chemical reactions and/or analytical principles, sources of error, quality control, practical applications and theoretical aspects of the above procedures as related to normal and abnormal states. 2 lec. 6 lab.

*MLTC 213 Clinical Chemistry II (4)

Prerequisite: MLTC 212
Continuation of Clinical Chemistry I, MLTC 212. 2 lec. 6 lab.

*MLTC 215 Stat Lab Simulation (3)

A simulated stat laboratory environment is designed for students to participate in performing various stat laboratory tests in chemistry, hematology, urinalysis, blood banking, coagulation, and microbiology. Students are required to organize their work assignments, complete the assignments efficiently, and monitor quality control within established criteria. 9 lab.

*MLTC 216 Medical Technology Seminar (1)

Issues and trends in Medical Laboratory Technology, government regulations, professional development, employment opportunities, resume writing and job-seeking skills will be discussed. 1 lec.

*MLTC 217 Case Studies (1)

In conjuction with MLTC 215, the student will present the case studies assigned in MLTC 215 to interpret and evaluate the clinical correlations and significance of the lab data. 1 lec.

*MLTC 220 Clinical Practicum I (4)

Prerequisite: Completion of all required MLTC courses with a minimum of "C" in each course and a minimum of 2.000 cumulative grade point average. Eighteen weeks of internship providing a practical application of the skill and knowledge learned during the previous quarters of the curriculum. Students are assigned to accredited hospital laboratories as trainees. The rotation schedule consists of three weeks in Hematology-Coagulation; four weeks in Chemistry; four weeks in Microbiology; four weeks in Blood Banking; and two weeks in Urinalysis.

It emphasizes individualized care noting family rights/responsiblities. It envelops the historical changes in maternity care, basic anatomy and physiology of the reproductive system, the antepartal, intraparta, and postpartal family in the normal pregnancy, the newborn, as well as problems/disorders associated with each stage of pregnancy. It is the goal of this course to provide to students, on completion, the ability to give appropriate nursing interventions for a family during any stage of pregnancy, either normal or complicated.

Occupational Therapy Assistant Courses

OTAT 101 Introduction to Occupational Therapy (4) F

Prerequisite: Enrollment in OTA Program.
Introduction to the profession of occupational therapy, the roles and functions of occupational therapy personnel, the areas of occupational performance and the theoretical basis of using goal-directed activities.

*OTAT 102 Therapeutic Media I (3) Sp, S

Prerequisite: OTAT 202
Introduction to the analysis and therapeutic application of activities. Includes skill development in selected activities, instruction of peers in an activity, and participation in proper care and maintenance of equipment and supplies.

OTAT 105 Survey of Medical Terminology (2) F

Prerequisite: Enrollment in OTA program.

An introduction to medical terminology commonly used in health occupations. Emphasis will be on prefixes, suffixes, root words, anatomical points of reference, abbreviations and symbols.

OTAT 106 Occupational Therapy in Geriatric Program Planning (4) W

Prerequisite: OTAT 210
Introduction to and application of occupational therapy in the treatment of older adults. Emphasis is on developing and implementing both activity and rehabilitative programs in agencies serving the elderly.

OTAT 108 Practicum I (2) Sp

Prerequisite: OTAT 202
Supervised clinical experience under the direction of qualified personnel in a variety of settings including hospitals, day care centers, MR facilities, mental health facilities, schools, nursing homes, and convalescent centers. Emphasis will be on developing professional communication skills, learning to accurately document observations, developing an understanding of other health care professionals, and instructing a small group in an activity. (See academic requirements of OTA program.)

OTAT 109 Applied Anatomy and Kinesiology (2) Sp

Prerequisite: OTAT 202
Study and application of human anatomy and basic movement principles as used in occupational therapy.

OTAT 110 Group Dynamics (2) Sp

Prerequisite: OTAT 202, PSYC 101, SOCI 101
Study of group behavior. Practice in leading groups, observing group interactions and participating in various types of groups.

OTAT 202 Disease Pathology (4) W

Prerequisite: OTAT 101, 105, BIOL 151
Discussion of both physical and psychosocial dysfunctions commonly referred to occupational therapy . Includes the symptoms, etiology and treatments of various diseases.

OTAT 203 Occupational Therapy in Developmental Disabilities (6) Su

Prerequisite: OTAT 108, 109, 110, PSYC 101 & 351
Study of conditions which interfere with normal growth and development. Introduction to the application of occupational therapy in the treatment of developmental disabilities. Emphasis on the role of the O.T. Assistant in treatment of developmental disabilities particularly in the public school setting.

OTAT 204 Practicum II (3) Su

Prerequisite: OTAT 108, 109, and 110
Similar to Practicum I (OTAT 108) but will be in a different type of setting.

*OTAT 205 Therapeutic Media II (3) F, W

Prerequisite: OTAT 101
Analysis, adaptation, and therapeutic application of weaving and woodworking.

OTAT 208 Practicum III (3) F

Prerequisite: OTAT 204
Supervised clinical experience under the direction of qualified personnel in a variety of settings. Continuation of skill development of Practicum II with additional emphasis on case study, treatment planning and occupational therapy treatment techniques.

*OTAT 210 Occupational Therapy in Physical Disabilities (6) F

Prerequisite: OTAT 203, 204
Exploration of occupational therapy theories in the evaluation and treatment of physically disabling conditions. Lab emphasis is on instruction of activities of daily living, work simplification, energy conservation, and fabrication of orthotic and adaptive devices.

OTAT 211 OTAT Seminar (2) W

Prerequisite: OTAT 208, 210
Discussion of the professional roles and responsibilities of the Occupational Therapy Assistant. Includes orientation to licensure, certification, legal and ethical issues, peer review and other current professional issues.

OTAT 212 Occupational Therapy in Mental Health (4) W

Prerequisite: OTAT 208, 210, PSYC 101, 351, SOCI 101
Exploration of Occupational Therapy theories in the evaluation and treatment of psychosocial dysfunction. Lab emphasis is on the development of observation skills, group dynamics, group

leadership, effective communication, and therapeutic use of self.

OTAT 220 & 221 Clinical Application (6 ea.) Sp, Su

Prerequisite: Successful completion of all OTA and other required courses.
Supervised fieldwork placement, experience in and responsiblity for delivery of service to patients/clients. Emphasizes the application of academically acquired knowledge leading to the performance of an entry-level occupational therapy assistant.

(See Academic and Clinical Requirements of OTA Program.)

Pharmacy Courses

Phar 101 General Pharmacology (4)

Introduction to the General principles of pharmacology. Calculations, drug classification, and the sites and mechanisms of drug action.

Philosophy Courses

PHIL 100 Basic Survey of Philosophy (4)

Introduction to philosophy through selected primary texts from ancient Greece to the modern era.

PHIL 101 Fundamentals of Philosophy (4)

Survey of basic problems, concepts and methods in philosophy.

PHIL 102 Introduction to Logic (4)

Use of evidence in establishing reliable conclusions.

PHIL 103 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.

PHIL 105 Rhetoric and Critical Thinking (4)

The use and abuse of language in everyday life, especially in advertising, politics, and education.

PHIL 110 Elements of Symbolic Logic (4)

Deductive reasoning, formal logic from Aristotle to the early twentieth century.

PHIL 200 Philosophy and Education (4)

Theories of teaching and learning from ancient Greece to the contemporary classroom.

PHIL 231 Existentialism (4)

The meaning of life, the immanence of death, the absurdity of existence, the burden of choice.

PHIL 240 Philosophy and Religion (4)

The spiritual traditions of Judaism, Catholicism, and Protestantism; comparisons and contrasts.

PHIL 250 Oriental Philosophy (4)

The spiritual traditions of Hinduism, Buddhism, Confucianism, and Taoism.

PHIL 320S Ethics in Public and Private Life (4)

Personal, familial, social, and professional value decisions: how to recognize and make them.

PHIL 361 Topics in American Pragmatism (4)

Peirce, James, Dewey, Royce, Santayana, and the development of American philosophy.

PHIL 371 Topics in Contemporary Philosophy (4)

Recent accounts of knowledge, reality, death, interpretation, language, history.

PHIL 400 Capitalism, Socialism, and Democracy (4)

Examination of interrelationships between economics, social theory, and political philosophy.

Physical Science Courses

PSCI 099 Topics in Science (4)

PSCI 101 Physical World (4)

Designed for nonscience majors. Fundamental topics in meteorology include atmosphere, winds, clouds, storms and weather. Topics in geology include rocks and minerals, gradation, earthquakes, continental drift and the ocean. 3 lec. 3 lab.

PSCI 105 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 110S Man and the Physical Sciences (Core Course) (4)

This course explores the depth and breadth of the physical sciences by following the development of a small number of major scientific concepts. Science will be presented as a human activity that helps us to perceive order in our surroundings, making our world understandable. Students will be encouraged to look beyond the artificial boundaries that have been established between the sciences and humanities and among the sciences themselves. The relationship between science and society and some current issues will be examined. 4 lec.

PSCI 295 Topics in Physical Science (1-4)

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

Physical Therapist Assistant Courses

PTAT 101 Medical Terminology for PTA (2)

Prerequisite: Acceptance into the Physical Therapist Assistant Program.
Structure of medical words, including spelling and definitions, common prefixes, suffixes and root words and how to combine them to form medical terms. Patient records will be introduced as well as anatomical body parts, diseases, operations, and drugs, which are emphasized by analysis of the terms and structure of the words. One lecture hour per week.

PTAT 111 Principles of Physical Therapist Assistant (3)

Prerequisite: Acceptance into the Physical Therapist Assistant Program.
The purpose, philosophy, history and development of the physical therapy profession, including the function of the American Physical Therapy Association. The development of the Physical Therapist Assistant, duties, function, legal responsibilities and limitations, including medical ethics. 3 lec.

PTAT 112 Physical Therapist Assistant Procedures I (5)

The first of three sequential physical therapist assistant procedure courses. Basic physiology and theory of heat, hydrotherapy, cold, massage. Body mechanics, burns, isolation techniques, patient positioning, and traction. Student has the opportunity to develop skills in the therapeutic application of these modalities. 3 lec. 6 lab.

PTAT 113 Physical Therapist Assistant Procedures II (5)

Theory and therapeutic application of modalities, such as low and high frequency currents, biofeedback, TENS, Jobst extremity pump and diathermy. 3 lec. 6 lab.

PTAT 114 Anatomy and Kinesiology (5)

Advanced anatomy course designed specifically for the Physical Therapist Assistant. Bone and muscular structure in detail as well as locomotion, work and force. 3 lec. 6 lab.

PTAT 115 P.T. in Physical Dysfunction (3)

Discussion of physical dysfunctions commonly referred to physical therapy. Includes symptoms, etiology and treatments of various diseases. 3 lec.

PTAT 202 Physical Therapist Assistant Procedures III (5)

Principles of muscle testing, goniometry, joint range of motion, flexibility, coordination, gait training and endurance exercise programs. Exercises for specific joints, diseases, and medical conditions. 3 lec.6 lab.

PTAT 212 Clinical Practicum I (4)

Second experience in clinical settings in which the student will perform theories and techniques for patient care under close supervision of a licensed physical therapist. 12 clinical, 2 lec

PTAT 213 Clinical Practicum II (4)

Intermediate experience in clinical settings performing previously learned theories and techniques under supervision of a licensed physical therapist. 12 clinical, 2 lec.

PTAT 214 Clinical Practicum III (6)

Advanced experience in clinical settings. 38 clinical

PTAT 216 Clinical Practicum & Seminar (2)

Introductory experience in clinical settings in which students will perform theories and techniques of patient care under close supervision of licensed physical therapist. Procedures and techniques discussed in seminar. 4 clinical, 1 lec.

PTAT 231 Rehabilitation Procedures I (4)

Rehabilitation skills relating to orthopedic and cardiac principles. Includes study of prosthetics, orthotics, fractures and postural deviations, and cardiac rehabilitation. 3 lec. 3 lab.

PTAT 232 Rehabilitation Procedures II (4)

Rehabilitation skills needed for treatment of central nervous system, peripheral nervous and respiratory systems. Included are stroke rehabilitation, spinal cord injuries, pediatrics and postural drainage. 3 lec. 3 lab.

PTAT 235 Physical Therapy Trends and Admin. Procedures (2)

Identification of concepts, techniques, and administrative skills used in the efficient operation of Physical Therapy Department. Special emphasis on establishing and maintaining patient records. 2 lec.

PTAT 255 PTA Seminar (2)

Students will present case studies of patients treated in their clinical assignments. Special procedures and techniques seen in Physical Therapy will be discussed as well as problems encountered. 2 lec.

Physics Courses

PHYS 099 Fundamental Physics (4)

This course is designed for those students with an inadequate background in math or physics. 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 201 Physics (Mechanics) (4)

Prerequisite: MATH 130 or equivalent
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 lab.

PHYS 202 Physics (Electricity) (4)

Prerequisite: PHYS 201
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 motors. 3 lec. 3 lab.

PHYS 203 Physics (Heat, Light, Sound) (4)

Prerequisite: 201
Fundamental properties and basic principles of heat, light, and sound. 3 lec. 3 lab.

PHYS 210 Astronomy (4)

Prerequisite: PHYS/CHEM 110
Fundamental ideas of astronomy. Topics include the solar system, stars, galaxies, black holes and the history of ideas about the universe. 3 lec. 3 lab.

PHYS 311 Calculus-Based Physics I (4)

Prerequisite or corequisite: MATH 201
Introductory survey of mechanics for science and engineering students. Introduces the use of calculus in interpreting physical phenomena. Topics include vectors, kinematics, dynamics, energy, momentum, rotation, and statics.

PHYS 312 Calculus-Based Physics II (4)

Prerequisite: Physics I; Corequisite: MATH 202
Introductory survey of electricity and magnetism. Uses calculus in interpreting physical phenomena. Topics include static electric and magnetic fields, D.C. circuits, induced currents and electromagnetic forces, inductance and capacitance.

PHYS 313 Calculus-Based Physics III (4)

Prerequisite: PHYS I; Corequisite: MATH 202
Introductory survey of thermodynamics and wave phenomena. Uses calculus in interpreting physical phenomena. Topics include heat; transmission, reflection, refraction, diffraction, and interference of sound and light.

PHYS 395 Special Topics in Physics (1-4)

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

PHYS 485 Senior Project (1-4)

Indepth study of a selected topic in physics culminating in the preparation of a senior paper.

PHYS 490 Seminar in the Physical Sciences (1-4)

Discussion of advanced topics in physics.

PHYS 495 Undergraduate Research (1-4)

Independent physics investigation under the direction of a faculty member.

Plastics Courses

PENG 101 Introduction to Plastics (3)

This course covers an introductory overview description of the different plastic resins, processing methods, and terminology. Beginning with a brief outline of polymer chemistry the lecture discussions will cover different types of plastic, identification tests, polymerization, molecular growth, and processing methods. Laboratory experiences in extrusion, injection, thermoforming, compression, and other molding and fabricating operations will be introduced.

PENG 102 Machine Tools I (3)

This course will provide the basics of metal chip making technology needed in the plastics field. Topics will include subjects on safety, measurements, bench work, drilling, turning, shaping, planing, milling, grinding, and various other machining processes. Properties and uses of ferrous and non-ferrous alloys, cutting fluids, welding and foundry practices will also be discussed. Laboratory experiences will cover and include actual chip making and tooling.

PENG 103 Extrusion Molding (3)

Prerequisite: PENG 101 or advisor approval.
Techniques of plastics extrusion and blow molding operations will be covered; profiles, pipe, sheet, blown film, extrusion coating, wire and cable covering, thread (monofilaments), in addition to various blow molding methods. Laboratory experiences will involve the setup and operation of extrusion and blow molding equipment.

PENG 104 Thermoforming (3)

Prerequisite: PENG 101, PENG 102, ENDR 101 or advisor approval. Lecture discussion will cover thermoforming processes and equipment. Thermoforming will be introduced with special emphasis on forming equipment and the appropriate mold design processes. Characteristics of plastics commonly used in thermoforming will be utilized in designing, fabricating and molding of laboratory projects.

PENG 105 Injection Molding (3)

Prerequisite: PENG 101, PENG 102, or advisor approval.
Various types of injection molding processes will be studied: Reciprocating Screw, Plunger, Hot Tip, Hot Runners, Jet, Coinjection, Thermoset, Preplasticizers, Screw Pot, RIM. Laboratory experience involves the actual operation of injection molders, programming on microprocessors, field trips, and the designing of an injection mold.

PENG 201 Thermal Molding Machine Controls (4)

Prerequisite: PENG 101, ENDR 101 or advisor approval.
The student will study the industrial control mechanisms important to the molding machines and processes. This course includes basic pneumatic, hydraulic, electrical, electronic, and thermal control systems encountered in most processing systems.

PENG 202 Production Control and Planning (4)

Prerequisite: PENG 101, MATH 130, ENGR 209 or advisor approval.
Basic concepts of production planning and control methodologies

will be studied along with inventory planning, production development studies, capacity consideration, costs, break-even etc. Planning, scheduling and simulation exercises are accomplished in this course.

PENG 203 Testing of Plastic Material (3)

Prerequisite: PENG 101, MATH 130, MATH 131 or advisor approval.
Study is made of the mechanical, thermal, electrical, optical, weathering, flammable, and environmental characteristics of plastic resin. Testing for tensile, impact, chemical properties, heat stability, hardness, and numerous other test procedures will be performed in the laboratory. ASTM experiments and the writing of technical reports on the property changes of plastics under various conditions will be stressed. Statistical quality control methods will also be introduced as related to material testing.

PENG 205 Plant Layout and Materials Handling (3)

Prerequisite: PENG 101, ENDR 101, or advisor approval.
Study of the principles of plant layout and material handling are used to obtain effective utilization of workers, materials, and machines, as related to facilities, and efficient application of all resources. Methods for selection and usage of modern equipment and handling materials systems commonly found in industrial processes are studied.

PENG 206 Introduction to Polymer Science (3)

Prerequisite: CHEM 122 or CHEM 305, or advisor approval.
An introduction to structure and properties of plastics, textile fibers, and elastomers. The synthesis and characterization of polymers by chemical and physical methods is discussed.

PENG 207 Fundamentals of Processing Equipment & Maintenance (2)

Prerequisite: PENG 101
Study of piping diagrams, heat exchangers, reactors, etc., commonly used in the chemical industry. Emphasis on maintenance problems and methods.

PENG 209 Fabrication & Finishing of Plastics Production (4)

Prerequisite: PENG 101, PENG 102, ENDR 101, or advisor approval.
Study of industrial manufacturing methods for plastics products not encountered in the previous courses. Areas covered will include printing, cementing, electroplating, metallizing, hot stamping, polishing, welding, engraving, machining. Special emphasis will be placed on compression, transfer, SMC, BMC, TMC, and FRP processes.

PENG 210 Properties of Materials (4)

Prerequisite: PENG 101, PENG 203, or advisor approval.
The course provides a basis for design considerations of usage of polymeric materials. Because of the applications oriented approach, the student will learn the reasons for using designs or polymeric material. Extensive usage of tables on properties and shapes will be applied in this course.

PENG 240 Plastics Processing I (3)

Prerequisite: PENG 101
Prerequisite or Corequisite: Chem 143
Basic topics in the processing of thermoplastic resins. Hands-on operation of molding machines and introduction to principles of processing of thermoplastics. 2 lec. 3 lab.

PENG 241 Plastics Processing II (3)

Prerequisite: PENG 240
Continuation of PENG 240, Plastics Processing I. This course continues the study of the processing of thermoplastic resins. 2 lec. 3 lab.

PENG 242 Plastics Processing III (3)

Prerequisite: PENG 241
Basic topics in the processing of thermoset resins. Hands-on operation of molding machines and introduction to principles of processing of thermoset resins. 2 lec. 3 lab.

PENG 303 Quality Control (4)

Prerequisite: PENG 203
Statistical quality control, chart elaboration, central limit theorem, process capability, computer packages, statistical process control principles and applications. 3 lec. 3 lab.

PENG 310 Properties of Thermoplastic Resins (3)

Prerequisite: CHEM 201, 202
Corequisite or Prerequisite: PENG 240
A review of the manufacture, properties, and application of thermoplastic resins. Physical properties, compounding, and characterization are discussed. Principles of materials selection are emphasized. 2 lec. 3 lab

PENG 311 Properties of Thermoset Resins (3)

Prerequisite: CHEM 201, 202
Corequisite or Prerequisite: PENG 240
A review of the manufacture, properties and applications of thermoset resin families. Physical properties, compounding, and characterization are discussed. Principles of material selection are emphasized. 2 lec. 3 lab

PENG 312 Composites (3)

Prerequisite: CHEM 201, 202
Prerequisite or Corequisite: PENG 240
Raw materials, curing agents, fillers and reinforcements, coupling agents, processing aids used in composites. Processing techniques. 2 lec. 3 lab.

PENG 410 Mold Design I (3)

Prerequisites: ENDR 101, ENDR 103, PENG 240, 241, 242
This first course in mold design deals with the design of thermoset molds. A compression mold and a transfer mold are drawn in detail using an existing part for each type of processing. Standard mold frames and components are used. Both English and metric units are used. 2 lec. 4 lab.

PENG 411 Mold Design II (3)

Prerequisite: PENG 410
Continuation of Mold Design I. Results in the design of thermoplastic molds, extrusion

dies, and blow molded molds with thermoplastic materials. As part of the sequence, the inclusion of geometric dimensioning can be a part of an injection mold as well as using cams and other special techniques to make parts. 2 lec. 4 lab.

PENG 420 Plastic Part Design (3)

Prerequisites: PENG 240, 241, 242, 310, 311, 312
Corequisite or Prerequisite: PENG 410
Both thermoset and thermoplastic part designs are studied to determine the best design methods for the best parts. Parts are reviewed for the good and bad points. Projects are used to develop a better understanding of some of the design parameters. Part designs are done during the quarter by students. 2 lec. 4 lab

PENG 450 Advanced Processing I (4)

Prerequisites: PENG 240, 241, 242, 310, 311, 312, 410, 411
Major projects are undertaken using the knowledge and skills learned in previous courses in processing, mold design, and materials. Includes studies of shear, shear rates, torque and related topics. 3 lec. 3 lab.

PENG 460 Advanced Processing II (4)

Prerequisite: PENG 450
Continuation of Advanced Processing I. 3 lec. 3 lab.

PENG 490 Senior Project (4)

Prerequisites: PENG 240, 241, 242
A project of industrial interest and significance, combining processsing and resins. 3 lec. 3 lab.

Psychology Courses

PSYC 101 Introduction to Psychology (4)

A study of the individual in terms of maturational, learning, thinking, emotional, motivational, sensory and perceptual processes. *Required course for all Social Science majors.*

PSYC 150 Principles of Statistics (4)

(Cross-listed as SOCI 150, MATH 150.)
Prerequisite: MATH 101
An introduction to the vocabulary, concepts, formulas, and presentation of statistics as applied to business, education and science. Measures of central tendency and dispersion; probability applied to joint probability tables and Bayes' Theorem; probability distributions with emphasis on Binomial, Poisson, and Normal; sampling practices and theory; interval estimation and hypothesis testing. Calculator and computer use in student project applications.

PYSC 151 Human Growth and Development (4)

Prerequisite: PSYC 101
A study of the factors affecting human growth and development through the life cycle from infancy to advanced maturity.

PSYC 250 Neurobiology of Behavior (4)

Cross-listed as BIO 250.
Prerequisite: BIOL 101
Basic neurology, neurophysiology, and neuropharmacology, with

emphasis on how they relate to human behavior.

PSYC 273 Human Adjustment (4)

Prerequisite: PSYC 101
An examination of the individual's conflicts and problems of adjustment in modern society; considers problem solving strategies and anxiety reducing behavior. *Required course for all Social Science majors.*

PSYC 300 Theories of Personality (4)

Prerequisite: PSYC 101
Understanding of human personality through examination of psychoanalytic, humanistic, and learning theories, and current biologically-based research on personality.

PSYC 303 Introduction to Social Psychology (4)

Prerequisite: PSYC 101
Behavior of the individual as influenced by other individuals, social groups and culture; examines group dynamics, leadership, attitude, and group conflict as well.

PSYC 304 Psychology of Learning (4)

Prerequisite: PSYC 101
Study of learning: classical and instrumental conditioning, discrimination and generalization. Verbal learning, information processing and memory, problem solving, and concept formation.

PSYC 310 Child Psychology (4)

Prerequisite: PSYC 101
A survey of the course of development during the first 12 years of life with emphasis on patterns of physical, cognitive, and mental development, parent-child relations and the influence of TV and divorce on children.

PSYC 316 Behavior Problems in Children (4)

Prerequisite: PSYC 101
Analysis of personal and school-related problems of children. Cases of behavior problems with specific intervention techniques will be highlighted.

PSYC 351 Life Span Developmental Psychology (4)

Prerequisite: PSYC 101
An in-depth examination of psychological aspects of human growth, development and adaptation throughout the life span.

PSYC 360 Alcoholism and Substance Abuse (4)

(Cross-listed as SOCI 360 and HPER 360.)
Prerequisite: PSYC 101 or SOCI 101
Examines the action, use and abuse of psychotropic drugs including alcohol, prescription drugs and illegal substances. Special focus given to latest research on genetic predisposition for addictive behavior and its effects on the individual, family and society.

PSYC 361 Industrial Psychology (4)

Prerequisite: PSYC 101 or SOCI 101
Applies social-psychological approach to individual's work behavior. Topics include management approaches to

organizational processes resulting in productivity and satisfaction, change, turbulent environment and psychologist's roles.

PSYC 375 Educational Psychology (4)

Prerequisite: PSYC 101
Psychological foundations of education with emphasis upon learning, transfer, motivation, and evaluation.

PSYC 400 Abnormal Psychology (4)

Prerequisite: PSYC 101
Studies neuroses, psychoses, brain damage and other serious brain disorders and their effects on the individual, family and society.

PSYC 405 Death and Dying (4)

Cross-listed as SOCI 405.
Prerequisite: PSYC 101 or SOCI 101
Focus will be on increased ability to deal with one's own mortality; skills for working with terminally ill and their families; an understanding of the complex social system of death in American society, and moral, ethical and philosophical issues surrounding death.

PSYC 420 Community Psychology (4)

Prerequisite: PSYC 101
Analysis of relationship between mental health, institutional and social stress; characteristics of traditional and innovative helping programs; the role of psychologist as social-change agents.

PSYC 495A Special Topics in Psychology (1-4)

Prerequisite: PSYC 101
Individual or small group study under supervision of instructor on topics not otherwise available to students.

Radiologic Technology Courses

*RDLT 101 Radiologic Technology I (4)

Prerequisite: Admission to Radiologic Technology program
This course is designed to acquaint the new student with the goals, philosophies, and organizations of the radiography program and Radiology Department. Medical ethics, medicolegal considerations, elementary radiation protection, fundamentals of radiographic exposure, and radiographic positioning of the chest and abdomen are covered.

*RDLT 102 Radiologic Technology II (4)

Prerequisite: RDLT 101
This course concentrates on radiographic positioning of the appendicular skeleton with application of theory in the laboratory. Selected clinical experiences are planned to reinforce learning and provide the student with the opportunities to apply principles and techniques.

*RDLT 103 Radiologic Technology III (3)

Prerequisite: RDLT 102
This course concentrates on radiographic positioning of the axial skeleton with application of theory in the laboratory.

*RDLT 104 Radiologic Technology IV (3)

Prerequisite: RDLT 103, 201
This course concentrates on

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

RDLT 105 Radiologic Technology V (3)

Prerequisite: RDLT 104
Continuation of 104 emphasizing vascular and neurological examinations with analysis of equipment used.

RDLT 106 Radiologic Technology VI (3)

Prerequisite: RDLT 105
This course examines advanced radiographic techniques and imaging modalities, including technic charts, automatic exposure control, quality control, fluoroscopy, image intensifiers, conventional tomography, steroscopy, xeroradiography, computer literacy, computed tomography and other specialized areas of imaging.

RDLT 107 Radiologic Technology VII (3)

Prerequisite: RDLT 106
A series of lectures on pathologic conditions and their impact on the radiographic process. Includes student participation in film evaluation and case studies.

RDLT 108 Radiologic Technology VIII (2)

Prerequisite: RDLT 107, 113
This course is designed as a self assessment of the independent cognitive areas utilized in the clinical situation.

RDLT 111 Radiologic Physics (4)

Prerequisite: MATH 130, RDLT 104
This course will provide the student with the fundamentals of matter, electrostatics, electrodynamics, magnetism, rectification, production and properties of x-rays, x-ray tubes and x-ray circuitry.

RDLT 112 Radiobiology and Radiation Protection (3)

Prerequisite: RDLT 111
A study of the radiobiological areas of radiation interactions, radiosensitivity, radiation dose/response relationships, early and late radiation effects, radiation protection and health physics.

RDLT 113 Radiographic Processing (2)

Prerequisite: RDLT 201, 112
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 and quality control.

RDLT 200 Basic Patient Care (3)

Prerequisite: RDLT 101
The content of this course provides the student with knowledge and basic skills necessary for care of the patient. Includes medical and professional ethics, medical terminology and interpersonal relationships.

RDLT 201 Radiographic Exposure (4)

Prerequisite: RDLT 102
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.

RDLT 211 Clinical Experience I (2)

Prerequisite: RDLT 102
Practical application of radiologic technology principles, positioning and techniques with emphasis on upper and lower extremity examinations in the radiology departments of affiliate hospitals. Includes film critique sessions.

RDLT 212 Clinical Experience II (3)

Prerequisite: RDLT 211
Practical application of radiologic technology principles, positioning and techniques with emphasis on spine and skull examinations in the radiology departments of affiliate hospitals. Includes film critique sessions.

RDLT 213 Clinical Experience III (3)

Prerequisite: RDLT 212
Practical application of radiologic technology principles, positioning and techniques with emphasis on urographic, biliary and gastrointestinal examinations in the radiology departments of affiliate hospitals. Includes film critique sessions.

RDLT 214 Clinical Experience IV (3)

Prerequisite: RDLT 213
Practical application of radiologic technology principles, positioning and techniques with emphasis on gastrointestinal, portable and advanced bonework examinations in the radiology departments of affiliate hospitals. Includes film critique sessions.

RDLT 215 Clinical Experience V (3)

Prerequisite: RDLT 214
Practical application of radiologic technology principles, positioning and techniques with emphasis on headwork, surgery and advanced radiographic examinations in the radiology departments of affiliate hospitals. Includes film critique sessions.

RDLT 216 Clinical Experience VI (4)

Prerequisite: RDLT 215
Continuation of RDLT 215 with practical application of radiologic technology principles, positioning and techniques in advanced imaging modalities. Includes film critique sessions.

Real Estate Courses

REST 210 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 and to obtain basic knowledge about real estate for students' benefit in handling real estate problems. The course covers the elementary physical, legal, locational and economic 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 212 Real Estate Law (4)

Real Estate Law includes all of the areas of law commonly concerned with the typical real estate practitioner and investor-consumer. Among topics covered in this course are 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 213 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 214 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 215 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.

REST 218 Special Topics in Real Estate (4)

Recommended prerequisites for this course are: Principles and Practices I, Real Estate Law, Real Estate Finance, Real Estate Appraisal, Real Estate Brokerage. 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.

Respiratory Therapy Courses

RPTT 100 Medical Terminology (2)

An introductory level course designed to acquaint the student with the terminology commonly encountered in the medical, nursing, and allied health professions. Emphasis is placed on Latin and Greek prefixes, suffixes, combining forms, and the art of building and analyzing medical terms.

RPTT 101 Basic Patient Care (3)

An introduction to respiratory therapy as a profession and to basic clinical assessment and care of patients. Professional aspects

relating to duties, responsiblitites, professional ethics, and liabilities will be discussed. Principles and skills of basic patient care including patient assessment, record keeping, patient monitoring, and basic pulmonary care skills will be included.

RPTT 102 Cardiopulmonary/ Renal Anatomy and Physiology (5)

A detailed presentation of the anatomy and physiology of the pulmonary, cardiac, and renal systems. Topics will include mechanics of breathing, pulmonary defense mechanisms, gas diffusion, gas transport, cardiac electroconductive system, circulatory system, fluid and electrolyte balance, acid-base regulation, and interaction of the pulmonary, cardiac, and renal systems. An introduction to pathophysiologic principles will also be included.

RPTT 110 Medical Gas Therapy (4)

A presentation of topics related to the production, handling, and medical administration of medical gases. Topics to be covered will include the atmosphere, production of medical gases, cylinder handling and storage, bulk gas systems, piping systems, regulators, flowmeters, humidity and aerosol therapy, devices used to administer medical gases, humidity, and aerosols, as well as the indications, contraindications, and hazards of their use.

RPTT 115 Clinical Application I (1)

An introduction to the clinical setting, this course provides the student with an orientation to the hospital and an opportunity to practice those skills and techniques learned in RPTT 101 and RPTT 110.

RPTT 120 Perioperative Care (4)

A detailed discussion of respiratory therapeutic techniques used before and after surgery in order to minimize operative complications. Topics will include respiratory pharmacology, incentive spirometry, bronchopulmonary drainage and intermittent positive pressure breathing.

RPTT 121 Care of the Artificial Airway (2)

A study of the construction, identification, selection, indications for, hazards of, and methods for inserting and maintaining artifical airways.

RPTT 125 Clinical Application II (1)

This course provides the student with an opportunity to apply those skills and techniques learned in RPTT 120 and RPTT 121 as well as continuing the refinement of skills developed in RPTT 115.

RPTT 130 Pediatric and Neonatal Respiratory Care (4)

A study of the diseases, diagnosis, treatment, and care of the newborn and pediatric patient. Topics of discussion will include developmental anatomy, comparative anatomy and physiology, diseases of newborn and pediatric patients, diagnosis of infant and childhood diseases, and pulmonary care of the newborn and pediatric patient.

RPTT 131 Pulmonary Function Testing (2)

A study of the methods used for testing the function of the lungs. Topics will include the indications and standards for testing, equipment used, interpretation and quality control systems.

RPTT 132 Arterial Blood Gases/Acid-Base (1)

A study of the techniques for collecting and analyzing arterial blood samples as well as detailed discussion of the interpretation of results--emphasizing acid-base and fluid and electrolyte balance and regulation.

RPTT 133 Laboratory Procedures (1)

An opportunity to practice the skills discussed in RPTT 131 and RPTT 132.

RPTT 135 Clinical Practice III (2)

This course provides the student with an opportunity to apply those skills and techniques learned in RPTT 131, RPTT 132, and RPTT 133 as well as continuing the refinement of skills developed in RPTT 115 and RPTT 125.

RPTT 200 Pharmacology (3)

A study of the general principles of pharmacology including drug types, methods of administration, dosage, effects, indications, contraindications, and regulation. Drug groups related to respiratory care will be emphasized, including bronchodilators, wetting agents, mucolytics, antibiotics, muscle relaxants, and corticosteroids.

RPTT 201 Continuous Mechanical Ventilation (6)

A study of the therapeutic and diagnostic techniques used for patients receiving mechanical ventilatory support. Topics of discussion will include the selection process for ventilators, indications and hazards of mechanical ventilation, maintenance of patients, respiratory and hemodynamic monitoring, and processes for weaning patients from ventilatory support.

RPTT 202 Pathophysiology (3)

A study of the etiology, diagnosis, pathophysiology, and treatment of some of the most commonly encountered cardiopulmonary diseases. Topics will include chronic obstructive pulmonary diseases, common restrictive, pleural, occupational and cardiac related diseases.

RPTT 205 Clinical Application IV (2)

This course provides the student with an opportunity to apply those skills and techniques learned in RPTT 201, as well as continuing the refinement of skills developed in RPTT 115, RPTT 125, and RPTT 135.

RPTT 210 Critical Care (2)

A study of the assessment, monitoring and treatment of the acutely ill and traumatized patient. Topics will include head and chest trauma, burns, shock, near drowning, and hemodynamic monitoring.

RPTT 211 Advanced Cardiopulmonary Assessment (1)

A study of advanced techniques for the monitoring of cardiopulmonary

function. Topics will include ECHO, EKG, doppler ultrasound, pulmonary stress testing, and the study of sleep-induced respiratory disorders.

RPTT 212 Pulmonary Rehabilitation and Home Care (2)

A study of the care and management of patients receiving pulmonary rehabilitation or home care. Topics will include patient selection, education, and follow-up, program design, progress assessment, regulatory implications, and equipment.

RPTT 213 Department Management (1)

An introduction to the organization, planning, and management of, as well as the effect of current governmental regulations on, respiratory care services.

RPTT 215 Clinical Application V (3)

This course provides the student with an opportunity to apply those skills and techniques learned in RPTT 210, RPTT 211, RPTT 212 and RPTT 213, as well as continuing the refinement of skills developed in RPTT 115, RPTT 125, RPTT 135, and RPTT 205.

RPTT 220 Seminar (4)

This course is designed to provide the student with final curricular preparation for graduation. Activities will include oral case presentation, program assessment, a comprehensive,cumulative, student evaluation, and systematic content review.

RPTT 225 Clinical Application VI (8)

This course provides the student with an opportunity to apply all of the skills and techniques learned throughout the entire program, with emphasis on the skills and knowledge developed in RPTT 130, RPTT 201, RPTT 210, RPTT 211, RPTT 212, and RPTT 213.

Retail Management Courses

RMMT 103 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 retail business.

RMMT 104 Salesmanship (4)

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 223 Retail Buying (4)

Prerequisite: BMNT 102 or permission of instructor.
This course will provide a basic understanding of the retail buyer's responsibilities and functions and will create an awareness of the complexity of the buyer's job. Students will learn how to determine what and how much to buy and how to price merchandise. A good portion of this class is devoted to enhancing the student's merchandising math skills.

RMMT 225 Marketing Case Studies (4)

Prerequisite: BMNT 102 or permission of Instructor.
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 233 Sales Promotion (4)

Prerequisite: BMNT 102 or permission.
An in depth study of basic communication theory and principles applied to marketing and promotional problems. The course stresses analysis of source credibility, message structure, appeals, and consumer behavior theory involved in marketing communication problems. Also included are basic concepts of display, sales promotion techniques and publicity.

*RMMT 235 Advertising (4)

Prerequisite: BMNT 102
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 in the creation, planning and management of advertising.

Robotics Courses

*ROBO 210 Introduction to Robotics (4)

Introduction to applications in industry; emphasis on types, classifications, types of motion, economic impact, and safety.

*ROBO 211 Robotic Interfacing (4)

Prerequisite: ROBO 210 or advisor approval.
Study of hardware and software for connecting a programmable controller or microprocessor to a robotic arm and interfacing to peripheral machines and equipment.

*ROBO 212 Basic Robotic Applications (4)

Prerequisite: ROBOT 211 or advisor approval.
Indepth study of low- and medium-technology robot concepts, principles, functions, design parameters, and applications with emphasis on developing the technical skills required to specify, install, program, and operate point-to-point and controlled path robot systems.

*ROBO 213 Advanced Robotic Applications (4)

Prerequisite: ROBO 212 or advisor approval.
Advanced study and training in high-technology robot operations and applications with emphasis on continuous and controlled path robots, programmable logic control systems, and production systems and operation. Extended practice in off-line programmable set-up, adjustment, and operation of robotic work cells and materials handling systems.

*ROBO 214 Robotic Maintenance-Servicing (4)

Prerequisite: ROBO 213 or advisor approval.
Instruction in servicing and troubleshooting robotic and

peripheral automated systems; emphasis on mechanics, hydraulics and associated electrical and electronics.

Secretarial Courses

EXST 100 Keyboarding (1)

This course will enable a student to learn to keyboard by touch the alphabetic and numeric keys on a typewriter or computer.

*EXST 101 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 102 Typing II (3)

Prerequisite: Typing I
Typing II is a continuation of Typing I with students applying basic typing techniques to increasingly more difficult problems.

*EXST 103 Typing III (3)

Prerequisite: Typing II
Typing III is a continuation of Typing II with emphasis on developing the student's ability to produce mailable copy of technical reports, drafts, business correspondence, etc.

EXST 111 Shorthand I (3)

The student is taught to read and write Gregg shorthand and develop the nonshorthand elements of transcription which include vocabulary development, spelling, punctuation, and grammar.

EXST 112 Shorthand II (3)

Prerequisite: Shorthand I
A continuation of Shorthand I designed to perfect Shorthand theory, phonetics, word families, brief forms and phrases, and penmanship. Students are encouraged to raise speed and accuracy levels.

EXST 113 Shorthand III (3)

Prerequisite: Shorthand II
A continuation of Shorthand II with greater emphasis on building speed and accuracy and producing mailable copy.

*EXST 120 Business Machines (1)

A course designed to develop the student's ability to use electronic calculators.

EXST 130 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 140 Dictation and Transcription I (3)

Prerequisite: Typing II
A course designed to develop the student's ability to transcribe business documents into mailable copy form using transcription equipment. Emphasis is placed on proofreading skills, correct grammar usage, and use of correct punctuation.

EXST 214 Shorthand IV (3)

Prerequisite: Shorthand III
Emphasizes speed building and increasing mailable copy rate.

EXST 215 Shorthand V (3)

Prerequisite: Shorthand IV
Further emphasizes speed in taking dictation and an increased mailable copy rate.

EXST 216 Shorthand VI (3)

Prerequisite: Shorthand V
A course designed to increase each student's ability to take dictation at high rates of speed and transcribe into mailable copy.

*EXST 221 Word Processing I (3)

Prerequisite: Minimum typing speed of 40 wpm and the ability to set up letters, memos, reports, and tabulations. Word processing concepts and skills will be presented to the person with no previous training in word processing.

*EXST 222 Word Processing II (3)

Prerequisite: Word Processing I
This course will be a continuation of Word Processing I with more advanced applications of the software.

*EXST 240 Dictation and Transcription II (3)

Prerequisite: Dictation and Transcription I
This course is a continuation of Dictation and Transcription I with a more advanced study of correct grammar, editing of mailable copy, and increased transcription speed.

*EXST 241 Secretarial Practices I (3)

Prerequisite: Typing III and Dictation and Transcription I
This class is designed to emphasize the reponsibilities 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 business data. The personal qualities of a professional secretary and job opportunities available to the college-trained secretary are also discussed. All lab work will be completed on the microcomputer.

*EXST 242 Secretarial Practices II (3)

Prerequisite: Secretarial Practices I and Word Processing I
This class is an executive secretarial simulation project. All work is completed on the microcomputer.

*EXST 243 Secretarial Practices III (3)

Prerequisite: Secretarial Practices II and Word Processing II
This class is designed to introduce students to the changes that high-tech equipment has made on today's office. Students will see how various tasks handled by a secretary can be completed with greater ease by the use of specialized equipment. Assignments will be completed on the microcomputer using graphics, data base, spreadsheets, and word processing software.

*EXST 244 Medical Secretarial Practices (3)

Prerequisite: Secretarial Practices II and Word Processing II
This class will give the students an opportunity to learn the proper procedures for preparing medical reports, clinical reports, and general medical correspondence

and documents. Students will also learn an extensive list of medical terms and be able to use them correctly in documents. All work will be completed on the microcomputer using word processing software.

*EXST 245 Legal Secretarial Practices (3)

Prerequisite: Secretarial Practices II and Word Processing II
This course will give the students an opportunity to learn to prepare various types of legal documents. Students will also learn an extensive list of legal terms and be able to use them properly in legal documents. All work will be completed on the microcomputer using word processing software.

Social Science Course

Part of general education core requirement.

SOSC 110S Foundations of Social Science (4)

Introduction to the methods and concerns of Social Science. Studies perspectives of anthropology, economics, history, geography, political science, psychology, and sociology as related to specific themes or topics.

Sociology Courses

SOCI 101 Introduction to Sociology (4)

Studies the nature of human society and factors affecting its development including concepts of culture, groups, organizations, collective behavior and institutions. *Required course for all Social Science majors.*

SOCI 150 Principles of Statistics (4)

(Cross-listed as PSYC 150, MATH 150.)
Prerequisite: MATH 101
An introduction to the vocabulary, concepts, formulas, and presentation of statistics as applied to business, education and science. Measures of central tendency and dispersion; probability applied to joint probability tables and Bayes' Theorem; probability distributions with emphasis on Binomial, Poisson, and Normal; sampling practices and theory; interval estimation and hypothesis testing. Calculator and computer use in student project applications.

SOCI 201 Introduction to Social Welfare (4)

Overview of the field of social welfare with equal emphasis on fundamental concepts and services in social welfare and current and emerging tasks in the profession of social work.

SOCI 205 Current Social Problems (4)

Prerequisite: SOCI 101
An overview of major perspectives on social problems and their relevance in contemporary life. Topics may include poverty, sexism, racism, aging, alienation, crime, human ecology and colonialism in the third world.

SOCI 224 Urban Sociology (4)

Prerequisite: SOC 101
Ecological and nonecological

theories are used to study the processes of urbanization and the involvements and problems of the urban community.

SOCI 227 Sociology of Education (4)

Prerequisite: SOCI 101
Social organization of education, teaching as a profession. Examines class, ethnic, and other social factors affecting the educational process. Focuses on educational institutions and their relationship to the community.

SOCI 310 Gender Socialization (4)

Prerequisite: SOCI 101
Focuses on the socio-cultural dynamics involved in the socialization process. Examines differential expectations, male and female identity formation, sex roles in the family, occupational stereotypes and the changing nature of sex roles.

SOCI 311 Human Sexuality (4)

An in-depth view of the current status of human sexuality in the United States. Examinies current research, modes of sexual expression and enhancement; physiological, sociological and psychological basis of human sexuality; sexual variations, and sex ethics.

SOCI 325 Sociology of the Family (4)

Prerequisite: SOCI 101
Historical perspective for understanding American family systems. Of central concern are the contemporary marriage process and context, family relationships, sexuality, family dysfunctions, and changes.

SOCI 326 Small Group Dynamics (4)

Prerequisite: SOCI 101
Analysis of small group structure and processes; examination of roles, interpersonal relations, and leadership; current theory and research on small group interaction.

SOCI 340 Sociology of Appalachia (4)

Intensive study of Appalachia from sociological perspective. Emphasizes demography of Appalachia, sub-cultural characteristics, religion, social change and community power in Appalachia.

SOCI 360 Alcoholism and Substance Abuse (4)

(Cross-listed as PSYC 360 and HPER 360.)
Prerequisite: SOCI 101 or PSYC 101
Examines the action, use and abuse of psychotropic drugs including alcohol, prescription drugs and illegal substances. Special focus given to latest research on genetic predisposition for addictive behavior and its effect on the individual, family and society.

SOCI 370 Social Stratification (4)

Prerequisite: SOCI 101
Analyzes stratification in the U.S. and other societies focusing on income and wealth; role of family and education in social mobility; inequality and influence of social class on public policy.

SOCI 380 Sociological Methods (4)

Prerequisite: SOCI 101
Scientific method, measurement,

experimentations, survey research, observational methods, case study techniques and content analysis.

SOCI 400 Complex Organizations (4)

Prerequisite: SOCI 101
Sociological analysis of complex organizations. Topics include theories, types of organizations, organizational change and conflict, research in organizations.

SOCI 405 Death and Dying (4)

(Cross-listed as PSYC 405)
Prerequisite: PSYC 101 or SOCI 101
Focus will be on increased ability to deal with one's own mortality; skills for working with terminally ill and their families; an understanding of the complex social system of death in American society and moral, ethical and philosophical issues surrounding death.

SOCI 429 Contemporary Minority Relations (4)

Prerequisite: SOCI 101
Basic approaches are used to analyze American minority groups and their contemporary situation. Special emphasis is placed on patterns of prejudice and discrimination as well as the dynamics of race relations.

SOCI 444 Social Deviance (4)

Prerequisite: SOCI 101
Examination of the concept of deviance in sociology and its implications for the study of contemporary social behavior. How people develop a concept of some being different from others and act on this definition. Possible topics include mental illness, crime, sexual deviance, non-conformity and subcultures of deviance.

SOCI 450 Industrial Sociology

Prerequisite: SOCI 101
Focuses on the growth of technology in the U.S. Emphasized are the social organization of industry, life in the work place, and the organizational culture.

SOCI 475 Sociology of Occupations & Professions

Prerequisite: SOCI 101
Sociological analysis of contemporary occupations and professions in the United States, social stratifications in the work place, technology, and the individual in the work place.

SOCI 495A Special Topics in Sociology (1-4)

Prerequisite: SOCI 101
Individual or small group study under supervision of instructor on topics not otherwise available to students.

Spanish Courses

SPAN 111 Elementary Spanish I (4)

Development of comprehension, speaking, reading and writing skills in a cultural context. Basic grammar. Lab required. Initial course of three-quarter, first-year sequence.

SPAN 112 Elementary Spanish II (4)

Prerequisite: SPAN 111
Continuation of SPAN 111.

SPAN 113 Elementary Spanish III (4)

Continuation of SPAN 112.

SPAN 211 Intermediate Spanish I (4)

Prerequisite: SPAN 113 or 2-3 years of high school Spanish. Offers selected readings in Hispanic issues and literature to continue the development of communicative skills. Lab required.

SPAN 212 Intermediate Spanish II (4)

Prerequisite: SPAN 211 or instructor's approval Continuation of SPAN 211.

SPAN 213 Intermediate Spanish III (4)

Prerequisite: SPAN 212 or instructor's approval. Emphasizes the ability to read with detailed understanding, creative and accurate use of vocabulary items, the use of subordinate structures in oral communication, and the ability to communicate in writing using complex sentence structures.

Speech Courses

SPCH 101 Fundamentals of Human Communication (3)

Emphasis on organizing oral communications; study of the various contexts of intra- and interpersonal communication.

SPCH 103 Public Speaking & Human Communications (3)

Principles of public speaking, practice in presenting informative and persuasive speeches with emphasis on the human communication process.

SPCH 105 Introduction to Mass Communication (4)

Study of 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 215 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 220 Oral Interpretation of Literature (4)

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

SPCH 234 Introduction to Communication Theory (5)

Study of the philosophical basis of communication theory. Selected humanistic and scientific approaches will be studied to determine the authenticity of communication studies.

SPCH 245 Introduction to Organizational Communication

Prerequisite: SPCH 234 Analysis of organizational communication in education, industry, and government. The study and analysis of traditional and contemporary theories of

communication relating to concept, purpose, research, message, channel, feedback, networks, fluency of information flow, communication flow, and evaluation.

SPCH 290A Topics in Communications (1)

Study of various topics otherwise not available to students.

SPCH 290B Topics in Communications (2)

Study of various topics otherwise not available to students.

SPCH 290C Topics in Communications (3)

Study of various topics otherwise not available to students.

SPCH 353 History and Criticism of Political Oratory (3)

The analysis of all rhetorical techniques found in political discourse. Such areas as myth in politics, and the survey of the specific political elements of literature, television, and film.

SPCH 354 History and Criticism of 20th Century Oratory (3)

The study of methods of great communicators of the past who exemplify the rhetoric of nationalism, socialism, fascism, republicanism, and communism.

SPCH 435 Theories of Argument (3)

Study of the rhetorical system of argument and the relations between this system and formal logic.

SPCH 450 Introduction to Rhetorical Theory (3)

Ancient and modern rhetorical concepts and theories.

Theater Courses

THAR 120A Introduction to Stagecraft (3)

Principles of technical production. 2 lec. 1 lab.

THAR 120B Introduction to Stagecraft (3)

Principles of technical production. 2 lec. 1 lab.

THAR 120C Introduction to Stagecraft (3)

Principles of technical production. 2 lec. 1 lab.

THAR 121A Introduction to Lighting (3)

Principles of technical production. 2 lec. 1 lab

THAR 121B Introduction to Lighting (3)

Principles of technical production. 2 lec. 1 lab

THAR 121C Introduction to Lighting (3)

Principles of technical production. 2 lec. 1 lab

THAR 122A Introduction to Costume (3)

Principles of technical production. 2 lec. 1 lab.

THAR 122B Introduction to Costume (3)

Principles of technical production. 2 lec. 1 lab.

THAR 122C Introduction to Costume (3)

Principles of technical production. 2 lec. 1 lab.

THAR 130 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 131 Improvisation (2)

Introduction to the uses of improvisation as a means for exploration of self and text; also explores improvisation as an entertainment tool.

THAR 132 Elements of Performance (4)

Introduction to the elements of performance that create theater and drama, including text, performer, spectacle, spectator, and performance space. University attendance at theater productions is required.

THAR 135 Practicum in Production Design (2-4)

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

THAR 185 Practicum in Management (2-4)

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

THAR 210 Acting I (4)

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 the work of acting.

THAR 211 Acting II (4)

Continuation of training started in 210, with addition of more detailed character development, scoring techniques, and ensemble considerations through duet scene work.

THAR 212 Acting III (4)

For serious acting student this course completes the second year sequential training program. Primary emphasis is to apply techniques learned in 210 and 211 to more lengthy and complicated scene structures. Long duet scenes and multi-character scenes or short plays used for study and performance. Public performances are frequently incorporated into final work in this course.

THAR 227 Basic make-up

Theory and practice of stage makeup. 1 lec. 1 lab.

THAR 230 Children's Theater (5)

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

THAR 285A Practicum in Management (2-4)

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

THAR 285B Practicum in Acting (2-4)

Prerequisite: Instructor permission.
Supervised lab practice in rehearsal and public performance of roles.

THAR 285C Practicum in Production Design (2-4)

Prerequisite: Instructor permisson.
Supervised lab practice in design and execution of scenery, lighting, costumes, properties, and sound.

THAR 310 Audition Technique and Practice (3)

Preparation of audition materials, experience in various audition spaces, development of techniques for cold reading solo and duet, and the development of positive attitudes toward the audition experience.

THAR 312 Scene Study I (2-4)

Permission only
Extension of rehearsal/performance experience in 310and 311.
Advanced undergrad rehearses and performs in scenes selected to enhance dramatic range.

THAR 320 Oral Interpretation (4)

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

THAR 331 Directing I (4)

Principles and practices of directing for stage.

THAR 332A Theater History (3)

Development of theater and drama.

THAR 332B Theater History (3)

Development of theater and drama.

THAR 332C Theater History (3)

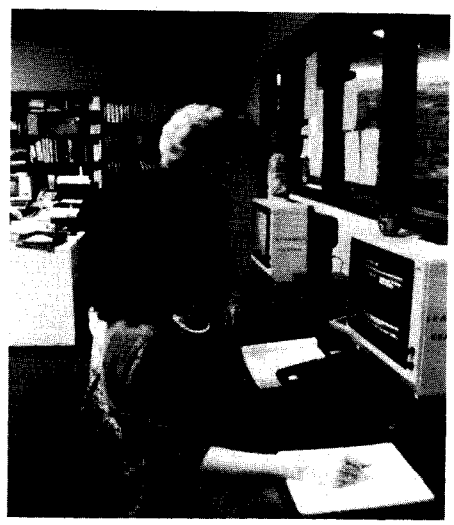
Development of theater and drama

THAR 410 Scene Study II (2-4)

A performance course designed to provide advanced actor training majors with an opportunity to do detailed work on character and rehearsal processes.

THAR 411 Acting IV (3)

Permission only.
Exploration of specific problems in acting through use of exercises, monologues, and scenes.



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Executive Assistant to the President for Governmental and Internal Affairs

ADMINISTRATION

Addington, A. L. (1987)
Provost
BS, E. Tennessee State
MS, University of Tennessee
PhD, University of Tennessee

Arnzen, James W. (1988)
Assistant Director of Admission
Head Basketball Coach
BS, Defiance College
MS, University of Dayton

Beaumont, Mary L. (1985)
Director, Minority, Handicapped and Special Student Services
BSEd, Ohio University
MEd, Ohio University

Beckett, Grant E. (1983)
Director of Developmental Education
AB, Ohio University
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Boyles, Elinda C. (1988)
Director of Personnel
BS, Eastern Kentucky University
MEd, University Nevada Las Vegas

Bradbury, Barbara L. (1980)
Coordinator, Shawnee BASICS
BS, Ohio University

Carver, Oliver (1981)
Director of Purchasing

Charles, Thomas K. (1979)
Director of Transfer Placement/Housing Coordinator
AS, Henry Ford Community College
BS, Western Michigan University
MA, Western Michigan University

Clarke, Caroline C. (1987)
Controller
BS, American University
BCS, Benjamin Franklin University
MCS, Benjamin Franklin University

Come, G. Scott (1975)
Associate Provost
BA, West Virginia Wesleyan
MA, Indiana University
PhD, Ohio University

Crabtree, Paul D. (1975)
Assistant Vice President of Student Services/Director of Counseling and Assessment
BSEd, Ohio University
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PhD, Ohio University

Crusan, Kenneth E. (1984)
System Manager
AAB, Shawnee State Community College
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Davidson, Richard T. (1972)
Director of Career Planning and Placement
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Dawson, Paul R. (1981)
Director of UIS

Decatur, William R.(1987)
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AB, Miami University
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Media Services Coordinator
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AA, Shawnee State Community College
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Evans, Danny L.(1981)
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Director of Programs SOCF
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Educational Media Specialist
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AS, Otterbein College

Hatton, Rick L. (1987)
Manager Networking and Technical Service

Hawk, R. Neil (1976)
Vice President of Business and Finance
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Rashidi, Nasser H. (1987)
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Scott, Edmun (1978)
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Stead, Thomas D. (1969)
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Sykes, William W. (1981)
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Thiel, Becky A. (1981)
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MSN, University of Tennessee

Thomas, Donald L. (1986)
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AS, Kettering College of Medical Arts
BS, Georgia State University

Thomas, Jack A. (1982)
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Todt, David E. (1978)
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Trampe, George M (1977)
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School of Engineering Technologies
BS, University of Illinois
PhD, Purdue University

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MEd, PhD, Ohio State

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Senior Instructor
School of Business
BS, MA, Ohio University

Waller, Betty (1968)
Associate Professor
Division of Social Science
BS, Miami University
MA, Marshall University

Wilson, Robert L. (1978)
Professor
Division of Arts and Humanities
BS, Kent State University
MEd, Xavier University
PhD, Florida State University

Wooddell, Linda E.
Assistant Professor
School of Allied Health and Nursing
BSN, University of Alabama, Birmingham
MEd, Ohio University

Yost, Carlson W. (1987)
Assistant Professor
Division of Arts and Humanities
PhD, Texas A & M

SHAWNEE STATE UNIVERSITY

940 2nd Street, Portsmouth	354-3205
Admissions	355-2221
Allied Health & Nursing	355-2225
Arts/Humanities Division	355-2300
Bursar/Cashier	355-2279
Business Administration	355-2215
Campus Security	355-2232
Center for Research & Development in Teaching & Learning	355-2301
Continuing Education	355-2274
Controller's Office	355-2265
Dental Hygiene Clinic	355-2241
Engineering Technologies	355-2224
Health Club	355-2269
Learning Center	355-2258
Library	355-2255
Math/Science Division	355-2301
Media Services	355-2256
Personnel Office	355-2324
Physical Facilities	355-2292
Provost's Office	355-2260
Purchasing Office	355-2314
Registrar's Office	355-2395
Social Sciences Division	355-2234
Student Financial Aid	355-2237
UIS--(EDP & Communications)	355-2345
University Bookstore	355-2203

Notes

Shawnee State University
Portsmouth, Ohio 45662

Application for Admission

Please complete this application and return it to the Office of Admissions at Shawnee State University. Also include the non-refundable $15 application fee and your high school transcript or general equivalence certificate (GED). If you have attended another college or university, have the registrar from that institution mail an official college transcript to the Admissions Office at Shawnee State.

Personal Data

Name: _____
Last First Middle/Maiden

Local Address: _____
Street & Number City State Zip Code County

Permanent or
Parents' Address: _____
Street & Number City State Zip Code County

Place of Birth: _____ Date of Birth: _____
State County

Home Phone: _____ Social Security Number: _____

High School Attended: _____ Grad. Date: _____ GED _____
Date Received

High School Address: _____
Street & Number City State Zip Code County

Sex: ☐ M ☐ F Marital Status: ☐ (1) Married ☐ (2) Single ☐ (3) Divorced ☐ (4) Widowed

Resident Status for Past 12 Months:

☐ 10—Resident of Scioto County
☐ 1—Resident of Ohio, Not Scioto County
☐ 2—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—Caucasion/White
☐ 6—Non-Resident Alien

Housing/Living Arrangements:

☐ 1—Commuter (drive from home)
☐ 2—On-Campus Housing
☐ 4—Other

Handicapped Status:

Do you want to claim handicapped status? ☐ Yes ☐ No

Transfer Information

(Required only if you have previous college work)

Previous College/University Attended: _____

Degree Earned: _____ Dates Attended: _____ to _____

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

Did you receive financial aid? ☐ Yes ☐ No

Did you receive veteran's benefits? ☐ Yes ☐ No

Student Intent In Enrolling

☐ A. Work toward an Associate Degree (2-year degree)
☐ B. Work toward a Bachelor's Degree (4-year degree)
☐ C. Work toward a one year certificate
☐ D. Gain qualifications and skills for employment (non-degree)
☐ E. Take course for personal enrichment (non-degree)
☐ F. Complete course for transfer to another institution (non-degree)

How did you hear about Shawnee State University? _____

(PLEASE COMPLETE THE REVERSE SIDE OF THIS FORM)

I am making application for the following major:

DIVISION OF ARTS AND HUMANITIES

BACHELOR'S DEGREE

☐ 43 English/Humanities
Interest Area:
☐ Elementary Education

ASSOCIATE DEGREE

☐ 44 Arts and Humanities
Interest Area:
☐ Art
☐ Communication
☐ Comparative Arts
☐ English
☐ Journalism
☐ Music
☐ Theater

DIVISION OF SOCIAL SCIENCES

BACHELOR'S DEGREE

☐ 45 Social Sciences
Interest Area:
☐ Elementary Education
☐ History
☐ Psychology
☐ Sociology
☐ Individ. Studies/Applied Social Science

ASSOCIATE DEGREE

☐ 45 Social Science
Interest Area:
☐ Government
☐ History
☐ Pre-Law
☐ Psychology
☐ Social Work
☐ Sociology

DIVISION OF MATH/SCIENCE

BACHELOR'S DEGREE

☐ 46 Natural Science
Interest Area:
☐ Elementary Education
☐ Life Science
☐ Physical Science
☐ Mathematics
☐ Pre-Medical
☐ Environmental Biology
☐ Chemistry
☐ Applied Mathematics

ASSOCIATE DEGREE

☐ 47 Math/Sciences
Interest Area:
☐ Botany
☐ Chemistry
☐ Pre-Dentistry
☐ Pre-Engineering
☐ Pre-Forestry
☐ Mathematics
☐ Medical Technology
☐ Pre-Medicine
☐ Microbiology/Public Health
☐ Pre-Optometry
☐ Pre-Pharmacy
☐ Physical Therapy
☐ Physics
☐ Pre-Veterinary
☐ Zoology

QUARTER AND YEAR YOU PLAN TO ENTER.

☐ Fall ☐ Spring
☐ Winter ☐ Summer

Name and Address of Hometown Newspaper: _____

_____

_____

CRADTAL (Center for Research and Development in Teaching and Learning

ELEMENTARY EDUCATION CERTIFICATION

☐ English/Humanities Major
☐ Natural Science Major
☐ Social Science Major

ASSOCIATE DEGREE

☐ Secondary Education
Field of Interest

SCHOOL OF ALLIED HEALTH AND NURSING

ASSOCIATE DEGREES

☐ 16 Dental Hygiene
☐ 17 Associate Degree Nursing
☐ 18 Medical Laboratory Technology
☐ 19 Radiologic (X-ray) Technology
☐ 21 Respiratory Therapy Technology
☐ 29 Physical Therapist Assistant
☐ 28 Occupational Therapy Assistant

SCHOOL OF ENGINEERING TECHNOLOGIES

BACHELOR'S DEGREES

☐ 40 Plastics Engineering Technology
☐ 41 Electrical/Computer Engineering Tech.

ASSOCIATE DEGREES

☐ 06 Plastics Engineering Technology
☐ 08 Electromechanical Engineering Technology
☐ Optional Major in Robotics
☐ 09 Instrumentation Technology
☐ Optional Major in Robotics

CERTIFICATE PROGRAM

☐ 37 CADD (Computer Aided Draft. and Design)

SCHOOL OF BUSINESS ADMINISTRATION

BACHELOR'S DEGREE

☐ 42 Business Administration

ASSOCIATE DEGREES

☐ 01 Accounting
☐ 02 Business Management
☐ Management Emphasis
Majors
☐ Banking and Finance
☐ Real Estate/Business Management
☐ Retail Management
☐ 03 Data Processing and Computer Technology
☐ 05 Secretarial
☐ General Secretarial Major
☐ Executive Secretarial Major

OTHER

☐ 27 ASSOCIATE OF INDIVIDUALIZED STUDIES DEGREE
☐ 38 Special, Non-Degree (Includes high school, transient, and senior citizen students.)
☐ 39 Undecided/Undeclared

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

_____
Signature of Applicant

MAILING ADDRESS: Please return the completed application and a non-refundable $15 check or money order made payable to Shawnee State University to the **Office of Admission, Shawnee State University, 940 Second Street, Portsmouth, Ohio 45662.**

PLEASE NOTE: Effective Fall, 1988, the American College Test (ACT) will be required of most degree seeking students. Please refer to the Admissions Policy in the Catalog. All applicants to the following Allied Health Programs must submit the test results of the 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 March 1.

* This institution does not discriminate with regard to race, color, religion, or national origin; the information requested 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.

FORM #– A:052888 (revised 8/88)

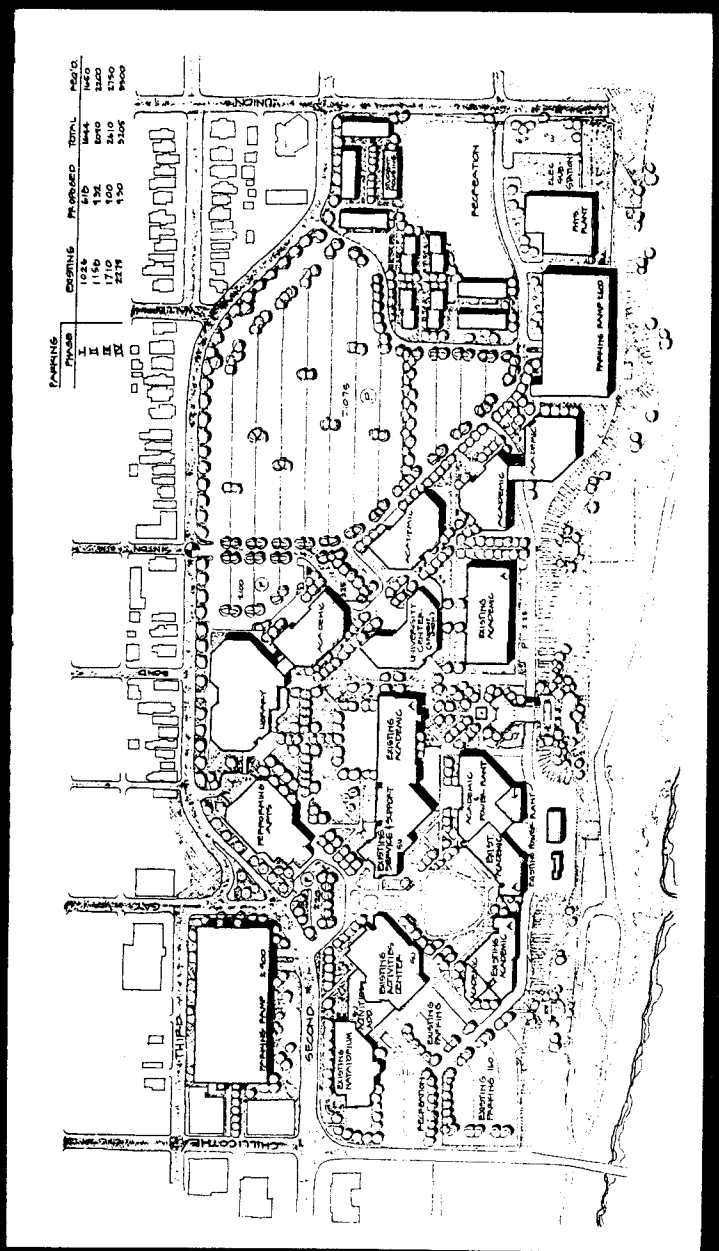
Notes

Notes

Notes

The look of things to come . . . . . .

Our campus is growing rapidly, with new buildings going up continuously. At right is a sketch of what Shawnee State University will look like in the near future when the construction crews are finished and gone.



How to get to Shawnee State

From Cincinnati
Take Rt. 32 East to Rt. 23 South. Stay on Rt. 23 until Second Street in Portsmouth. Turn left on Second Street.

From Dayton
Take Rt. 35 South to Rt. 23 South. Stay on Rt. 23 until Second Street in Portsmouth. Turn left on Second Street.

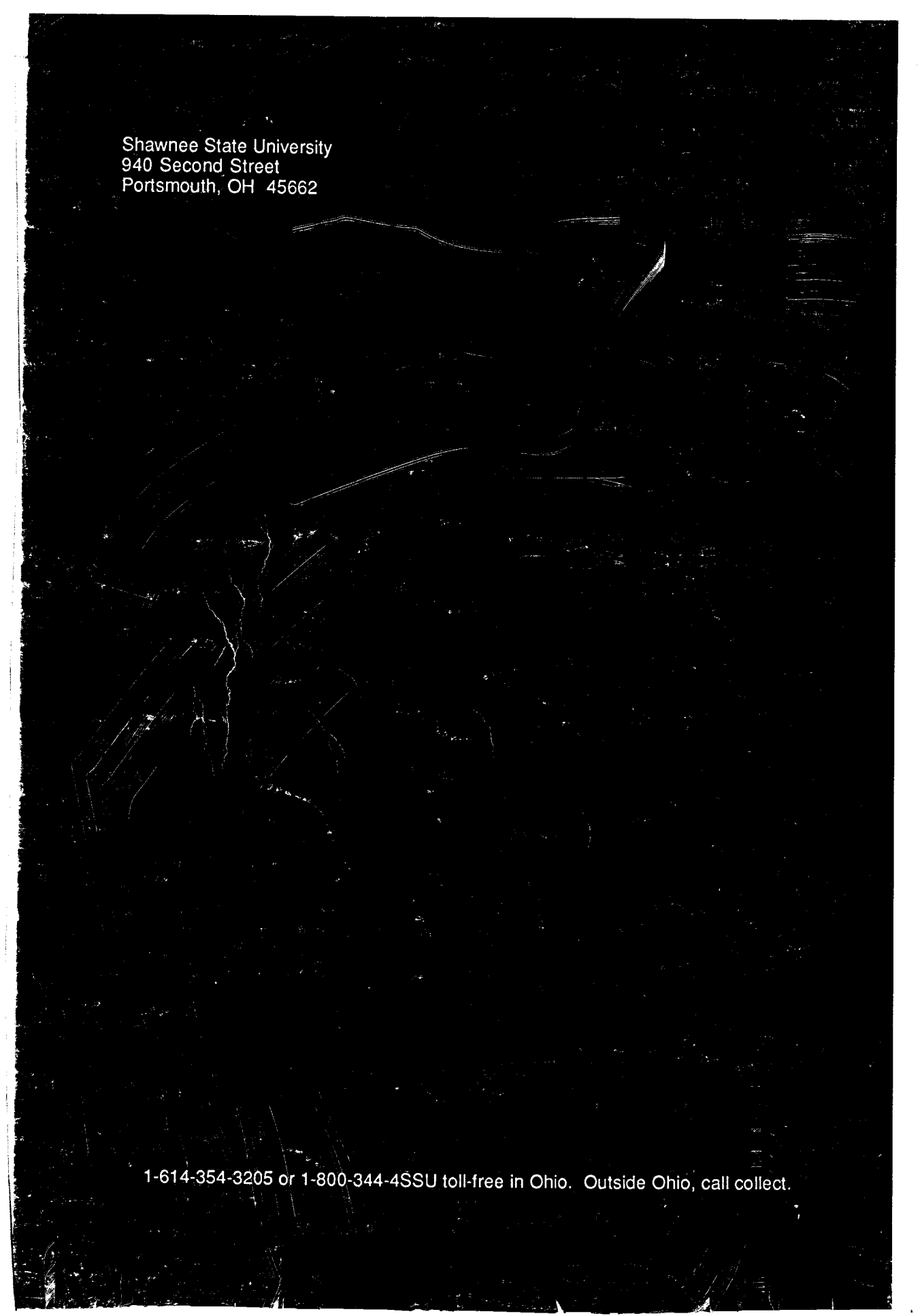
From Columbus
Take Rt. 23 South to Second Street in Portsmouth. Turn left on Second Street.

From Cleveland
Take Rt. 71 South to Rt. 23 South (Circleville exit). Take Rt. 23 South to Second Street in Portsmouth. Turn left on Second Street.

From Toledo
Take Rt. 75 South to Rt. 23 South (Findlay). Take Rt. 23 South to Second Street in Portsmouth. Turn left on Second Street.

From Kentucky
Take Rt. 23 North from Ashland across the U.S. Grant Bridge. Turn right on Second Street at the end of the bridge.

Shawnee State University
940 Second Street
Portsmouth, OH 45662
614-354-3205
1-800-344-4SSU (in Ohio)


Shawnee State University
940 Second Street
Portsmouth, OH 45662
1-614-354-3205 or 1-800-344-4SSU toll-free in Ohio. Outside Ohio, call collect.