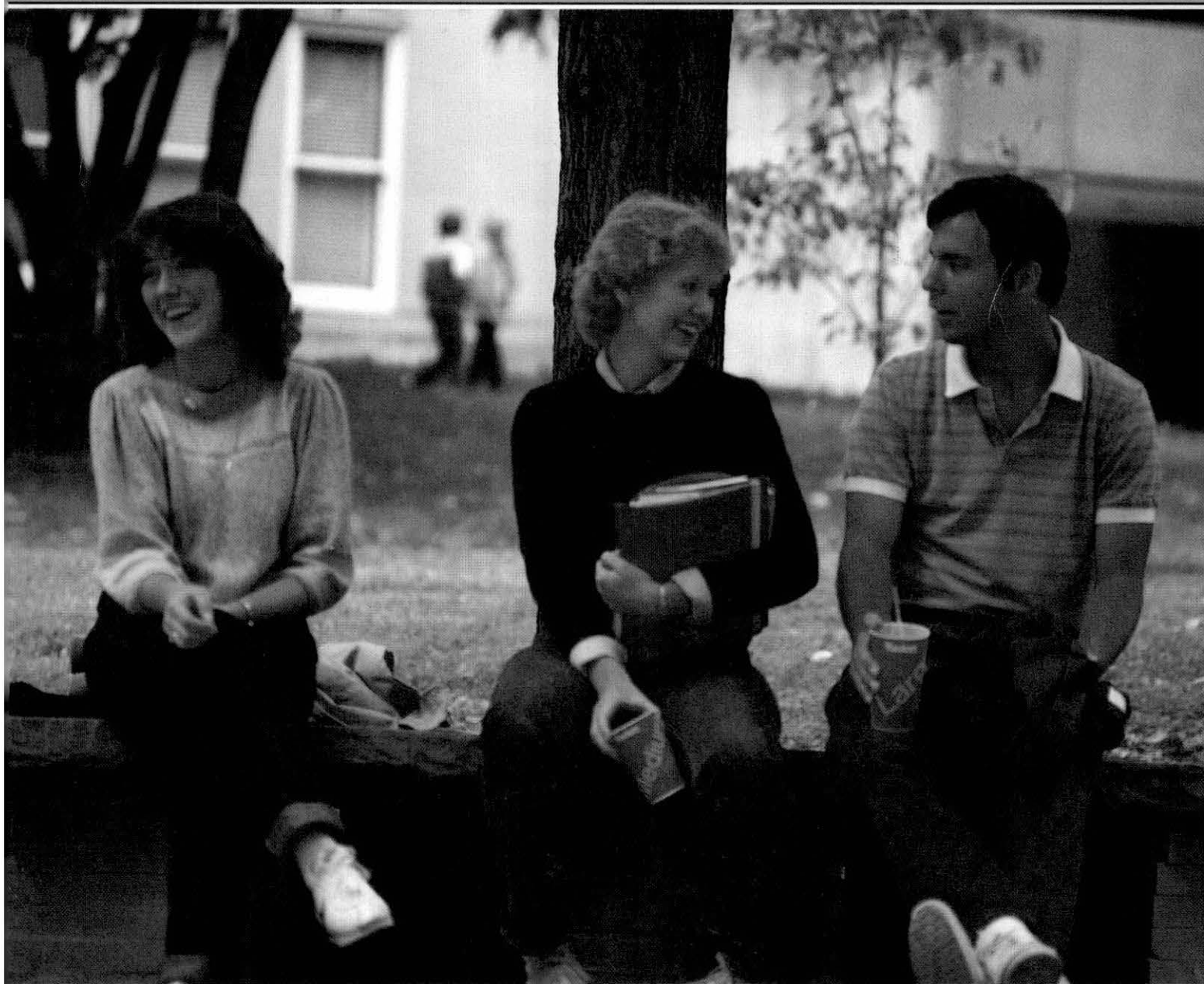


M O R E H E A D S T A T E U N I V E R S I T Y

Undergraduate Catalog

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Morehead State University Undergraduate Catalog 1984-85

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Memberships	American Association of Colleges for Teacher Education American Association of State Colleges and Universities American Council on Education Conference of Southern Graduate Schools National Commission on Accreditation National League for Nursing Southern Regional Education Board The Council of Graduate Schools in the United States Council for the Advancement and Support of Education
Accreditation	American Dietetics Association American Veterinary Medical Association Council on Social Work Education—Baccalaureate Level Joint Review Committee on Education in Radiologic Technology National Association of Schools of Music National Council for the Accreditation of Teacher Education National League for Nursing Southern Association of Colleges and Schools
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Changes	Morehead State University reserves the right to change its academic regulations, policies, fees, and curricula without notice by action of the Kentucky Council on Higher Education and/or the Morehead State University Board of Regents.
Equal Opportunity	Morehead State University is committed to providing equal educational opportunity to all persons regardless of race, color, age, sex, religion, national origin, or educationally-unrelated handicaps. The university does not discriminate on the basis of sex in its educational programs, activities, employment policies, or admission of students to any program of study as required by Title IX of the 1972 Education Amendments. Inquiries should be addressed to Ronald W. Moss, Affirmative Action Officer, Morehead State University, 101 Howell-McDowell Ad. Bldg., Morehead, KY 40351.
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Academic Calendar

1984 Fall Semester

August	20-21	Registration.
August	22	Classes begin.
August	27	Last day to register for a full load.
September	3	Labor Day holiday (no classes or office hours).
September	4	Last day to register for credit.
October	12	Mid-term grade reports due in Office of Registrar.
October	22	Last day to drop a full-term course or withdraw from school without academic penalty.
November	5-16	Spring pre-registration.
November	6	Presidential Election Day (no classes or office hours).
November	21	Thanksgiving holiday begins at 11:20 a.m.
November	26	Classes resume at 8 a.m.
December	7	Reading day for final examinations (no classes).
December	10-14	Final examinations.
December	15	Fall semester closes at noon.

1985 Spring Semester

January	7-8	Registration.
January	9	Classes begin.
January	14	Last day to register for a full load.
January	21	Last day to register for credit.
February	18	Washington's Birthday holiday (no classes or office hours).
March	4	Mid-term grade reports due in Office of Registrar.
March	11-15	Spring vacation (no classes or office hours).
March	18	Classes resume at 8 a.m.
March	22	Last day to drop a full-term course or withdraw from school without academic penalty.
March	28	Founders Day (10:20 and 11:30 classes dismissed).
April	5	Good Friday holiday (no classes or office hours).
April	15-26	Pre-registration for Summer I and fall 1985.
May	3	Reading day for final examinations (no classes).
May	6-10	Final examinations.
May	11	Spring semester closes at noon.

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Foreword

Morehead State University's 500-acre Eastern Kentucky campus is bordered to the north by the gently rolling foothills of the Daniel Boone National Forest. To the south, the campus is bordered by the shopping district of Morehead, a thriving city of about 10,000 which lies midway between Lexington and Ashland on Interstate 64. The university's educational facilities include more than 50 major structures in a variety of contemporary and traditional architectural styles, a 320-acre experimental farm, a nine-hole golf course, and a 50-acre outdoor learning center at Cave Run Lake.

With a coeducational enrollment of approximately 6,300 and a teaching faculty of 300, the university offers 96 undergraduate degree programs, two certificate programs, and ten pre-professional programs of study. It draws students from throughout the United States and several foreign countries to participate in its diverse academic and extracurricular life. The faculty, staff, and administration are committed to carrying out the following purposes of the university:

- The university should be a community of students, teachers, administrators, and staff where all pursue intellectual, creative, and technical development.

- The university should foster an environment in which knowledge may be discovered, integrated, and disseminated for concerns of social significance or for the excitement of research or free inquiry.

- The university should provide opportunity for students to recognize their potentialities and to acquire the discipline necessary for self-realization.

- The university should be a place where the interaction of students and teachers committed to excellence creates an atmosphere in which both will be stimulated to accept the challenges of the universe.

- The university should promote the development of those qualities of leadership necessary to meet the diverse needs of the state, nation, and world.

- The university should develop programs to fulfill its specific mission of serving the economic, education, social, and cultural needs of Northern and Eastern Kentucky.

- The university should respond to the demands of the present by utilizing the achievements and values of the past and by exploring the possibilities of the future.

How to Use This Catalog

This catalog is the official source of information about the university's academic programs. Its purpose is to guide you in planning a course of study and to meet program, department, and university requirements. See the table of contents and index for an outline of the information provided.

The information in this catalog is current as of the time of publication. If you are pursuing a degree and remain continuously enrolled in the university (excluding summers), you may complete a program under the catalog requirements in effect at the time of your original enrollment. If you are not continuously enrolled in the university and do not complete a bachelor's degree within five years (three years for an associate degree), you may be required to meet the program requirements stipulated in a current catalog. If you are a transfer student pursuing a bachelor's degree, the time allot-

ted for degree completion under the catalog in effect at the time of your enrollment is based upon your classification at the time of transfer; a sophomore transfer would have four years, a junior three years, and a senior two years. If you transfer above the freshman level and you are pursuing an associate degree, you have two years to complete the program under the catalog in effect at the time of your enrollment. The above limitations are based upon continuous enrollment.

Advisors and department and school offices make every effort to provide current information to students, but it is your responsibility to know the policies, regulations, and degree or certificate requirements that affect you. For further information, check with the Office of Academic Affairs, MSU, 201 Ginger Hall, Morehead, KY 40351, telephone (606) 783-2002.

Admissions, Fees, Financial Aid, and Housing

Admissions

Requests for applications or questions concerning admission should be directed to the Division of Admissions, Morehead State University, Morehead, KY 40351, telephone (606) 783-2000, or toll free 1-800-262-7474 (for long distance calls in Kentucky) or 1-800-354-2090 (for long distance calls from states surrounding Kentucky). You are encouraged to visit the campus before registering to discuss your intended program of study. Visits may be scheduled weekdays between 8 a.m. and 4:30 p.m. and at other times by appointment by contacting the Division of Admissions. There is no admission application fee.

Completion of admission requirements allows you to enroll in any program except those in nursing, radiologic technology, and veterinary technology. For additional information for entering these programs, contact the dean of the School of Applied Sciences and Technology, MSU, 246 Reed Hall, Morehead, KY 40351.

Requirements for admission for high school graduates, GED recipients, transfer students, returning students, international students, special students, and auditors are explained below.

Admission as a Freshman

Kentucky High School Graduates. If you are a graduate of a Kentucky high school accredited by the Kentucky State Board of Education, you will be admitted once you submit to the Division of Admissions (1) the Undergraduate Admission Application, and (2) official American College Test (ACT) results. A final high school transcript is required after high school graduation.

Non-Kentucky High School Graduates. If you are a graduate of an accredited high school outside of Kentucky, you will be admitted if you meet the graduation requirements of your local high school district and one of the following: (1) rank in the upper one-half of your graduation class, or (2) score in the fiftieth percentile or above of students taking the ACT nationally, or (3) show evidence of ability to pursue college level work without substantial remedial work. You should submit to the Division of Admissions: (1) the Undergraduate Admission Application, (2) official American College Test (ACT) results, (3) a partial high school transcript, and (4) the recommendation form completed by a school official. A final high school transcript is required after high school graduation.

GED Recipients. If you are a GED recipient, you will be admitted to the university once you submit to the Division of Admissions (1) the Undergraduate Admission Application, (2) official GED test results, and (3) official American College Test (ACT) results.

Admission as a Transfer Student

You are eligible for admission if your grade-point average (g.p.a.) is 2.0 or better on a 4.0 scale and you are in good standing at all previously attended institutions. If your g.p.a. is less than a 2.0 on a 4.0 scale, you may be considered for admission on probationary status. If you are transferring from an institution without regional accreditation, you may be considered for admission.

To be admitted to the university as a transfer student from other colleges and universities, you should submit to the

Division of Admissions (1) the Undergraduate Admission Application, (2) official transcripts of colleges or universities previously attended, and (3) the Transfer Recommendation Form (available from Division of Admissions, MSU) from all institutions previously attended. If you have fewer than 32 hours, you must submit your official ACT scores to the university.

Transfer of Credits. Credits you have earned from regionally accredited colleges or universities will be accepted for transfer. If you are transferring from a non-accredited institution, your earned credits will be evaluated for transfer after you have completed one semester in residence at the university.

Admission as a Returning Student

If you discontinue your enrollment at MSU for one semester (excluding summer terms), you must submit the Undergraduate Admission Application and be readmitted to the university.

If you have attended another institution since you last attended MSU, you must submit (1) the Undergraduate Admission Application, (2) an official transcript from any institution attended, and (3) the MSU Transfer Recommendation Form from the institution from which you are transferring.

Admission as an International Student

To be admitted as an international student, you must submit to the Division of Admissions (1) the Undergraduate Admission Application, (2) the International Student Application, (3) official records of previous educational experiences, and (4) official scores on the Test of English as a Foreign Language (TOEFL) or the Michigan Examination. A minimum score of 500 is required on the TOEFL and a minimum score of 82 is required for the Michigan Examination. You should apply at least two months before the semester or term in which you plan to enroll.

If you are transferring to the university from an accredited institution of higher education in the United States, you must submit (1) the Undergraduate Admission Application, (2) an official transcript from the institution from which you are transferring, (3) the Transfer Recommendation Form from the institution from which you are transferring, (4) the International Student Application, and (5) the official results of the TOEFL or Michigan examinations.

All international students are required to take the American College Test (ACT) during their first semester of enrollment at MSU.

Transfer of Credits. Credits earned from international institutions may be applied toward a degree program at MSU. Credits will only be considered after they have been evaluated by the International Education Research Foundations, Inc., Credentials Evaluation Service, P.O. Box 24040, Los Angeles, CA 90024. It is the student's responsibility to contact the agency and pay all service fees.

Admission as a Special Student

If you wish to register for a particular course for credit but you are not interested in working toward a degree, you may enter the university as a special student. You should submit to the Division of Admissions the Undergraduate Admission Application.

If you enroll as a special student and later wish to pursue a degree, you may do so by completing the appropriate admission procedure. All work satisfactorily completed as a special student may be used to fulfill degree requirements.

Admission as an Auditor

If you wish to audit a class, you need only submit to the Division of Admissions the Undergraduate Admission Application and written indication of your intent to audit. Although credit cannot be given for courses audited, such courses are recorded on your transcript. Tuition and fees are the same for auditing a course as they are for taking courses for credit.

Serviceman's Opportunity College

Morehead State University has been designated as a serviceman's opportunity college. For more information, contact the Division of Admissions.

Fee Assessment for Non-Kentucky Residents

Tuition for non-Kentucky residents is established through a different rate structure than that for Kentucky residents (all other fees or costs are the same for non-Kentucky residents as for Kentucky residents). Changes in circumstances may arise which may affect the residency and thus fee-assessment for students.

Any student or prospective student having questions related to their residency for fee assessment purposes should contact the Division of Admissions to secure additional information or to obtain the necessary forms used in making a determination.

Fees*

Every effort is made to hold cost to a minimum. You pay only the registration and housing fees and a few minor incidental fees when you register at the beginning of each semester. Books and supplies can be purchased at reasonable prices at the University Store. Books may be sold back to the store at the end of the semester. Meals are purchased either on a pay-as-you-go basis or in advance through a meal plan. More specific information on fees follows the list of terms you may encounter as you read this section.

Full-time refers to enrollment for 12 credit hours or more during the fall or spring semester.

Part-time refers to enrollment for less than 12 credit hours during the fall or spring semester.

Residency is an in-state/out-of-state classification for fee assessment purposes; policy guidelines are established and approved by the Kentucky Council on Public Higher Education.

Tuition is the fee charged for class enrollment.

Undergraduate is a student who has not completed the requirements for a bachelor's degree.

Tuition*

As a full-time student you are entitled to free admission to on campus athletic events, the Arts in Morehead Series, and the University Lecture Series, and to receive *The Trail Blazer*, the student newspaper. If you are enrolled full time for both the fall and spring semesters you receive the *Raconteur*, the student yearbook. These services are available to you as a part-time student if you pay the activity and service fee.

*All fees are subject to change without notice by action of the Kentucky Council on Higher Education and/or the MSU Board of Regents.

	Full-Time** Per Semester	Part-Time and Summer Term
Resident		
Undergraduate	\$445.00	\$38.00 per hour
Graduate	\$487.00	\$55.00 per hour
Non-Resident†		
Undergraduate	\$1275.00	\$107.00 per hour
Graduate	\$1400.00	\$156.00 per hour
Health Fee	\$10.00	

**Includes student activity and service fee.

†See fee assessment for non-Kentucky residents in Admissions section.

Student Health Service Fee

This fee is required of all full-time students (undergraduate and graduate) for the fall and spring semesters. Students who pay this fee are entitled to the basic services of the Caudill Health Clinic.

Housing

Residence Halls. Room rent for each term is due in full at the beginning of the term. Rates include telephone service for residents of Thompson Hall. In addition, television cable and refrigerators are provided in the other residence halls.

Deposit (refundable)—\$25.00

Women's Halls	Weekly	Per Semester	Per Summer Term
Thompson Hall (freshmen)	\$25.00	\$343.00	
Waterfield Hall (freshmen)	\$27.00	\$375.00	
East Mignon Hall (upper class)	\$30.00	\$385.00	\$138.00
Mignon Hall (upper class)			
Mignon Tower (upper class)			
Nunn Hall (upper class)			
West Mignon Hall (upper class)			
Men's Halls			
Alumni Tower (upper class)	\$30.00	\$385.00	\$138.00
Cartmell Hall (upper class)			
Cooper Hall (freshmen)			
Downing Hall (upper class and athletic scholarship recipients)			
Regents Hall (freshmen)			
Wilson Hall (upper class)			

Married Student Housing. Deposit (refundable)—\$50.00	
One bedroom (air-conditioned) per mo.	\$165.00
One bedroom per mo.	150.00
Studio (efficiency) apartment, per mo.	140.00
*Trailer, per mo.	155.00
Trailer pad, per mo.	45.00

*\$15 extra for air conditioners, per month

Meal Fees

You can buy cafeteria meals on a cash basis or you can purchase a meal plan or meal coupon books.

Meal Plan (Alumni Tower only).

10 meals per week, any two meals a day, Monday-Friday,
\$475 per semester

14 meals per week, any two meals a day, seven days, \$550
per semester

15 meals per week, three meals a day, Monday-Friday,
\$575 per semester

21 meals per week, three meals, seven days, \$625 per
semester

Any one meal per day, five days a week, \$270 per semester

Any one meal per day, seven days a week, \$285 per
semester

Coupon Books. Coupon book \$25, redeemable for \$26
worth of food (ADUC Cafeteria only).

Course Fees**Agriculture**

AGR 108, 109, 110, 118, 119, 120, 121\$15.00

AGR 317\$10.00

Art

ART 104\$ 5.00

ART 241, 303\$10.00

ART 204, 245, 251, 283, 294, 304, 345, 351, 353, 383, 394,
551, 583, 594, 604, 651, 655\$15.00

ART 290, 390, 694\$20.00

ART 692\$25.00

Biological and Environmental Sciences

BIOL 208, 209, 217, 219, 301A, 317, 318, 320, 333,
380, 518, 595, 596\$10.00

Chemistry

CHEM 100A, 101A, 111A, 112A, 201A, 223, 301A, 326,
327A, 328A, 460\$10.00

Construction Technology

CON 103\$5.00

CON 201, 203\$10.00

Electricity-Electronics Technology

EET 240\$10.00

Geography

GEO 505\$4.00

Graphics Communications Technology

GCT 102, 202, 322, 351\$5.00

GCT 302\$10.00

History

HIS 544\$35.00

Industrial Education and Technology

IET 111, 211, 311, 411\$5.00

Journalism

JOUR 285\$10.00

Manufacturing Technology

MFT 186\$10.00

MFT 286\$5.00

Military Science (fall and spring semesters)

Military science activity fee\$4.00

Music

Private lessons for fall, spring,
and summer terms:

Per Semester

Per half-hour lesson per week\$30.00

Under certain conditions, beginning students in applied
music may be assigned to an undergraduate student assis-
tant for instruction; in this event, the fees are one-half the
amounts indicated.

Recital fee, junior and senior (2 hrs.)\$30.00

Recital fee, senior (3 hrs.) and graduate (2 hrs.)\$60.00

Composition recital\$60.00

Nursing (Test fees)

NUR 201, 202\$6.00

NUR 300\$3.00

NUR 301\$22.00

Physical Education (per semester and summer terms)

Men: uniform, towel, and lock\$5.00

Women: towel and lock\$5.00
(includes refundable deposit of \$2.00)

This fee is for all students registered for physical education
activity courses and sports leadership courses requiring gym
periods. It is optional for intramural participants.

Radio-Television

R-TV 283, 383, 583\$15.00

Radiologic Technology

RAD 110, 120, 210, 220, 240, 250\$15.00

Speech

SPCH 310, 595, 597\$10.00

Welding Technology

WEL 101A, 102A, 201A\$20.00

WEL 386\$15.00

Other Fees

Student insurance (optional)Varies with plan selected

Deferred payment application fee\$25.00

Reinstatement fee25.00

Late registration25.00

Official transcript1.00

Service charge on returned checks7.50

Student parking

Per year (not refundable)15.00

TV rental

Per semester20.00

Per summer term7.00

Refunds

Students withdrawing from school during any semester or
term must arrange for their withdrawal with the vice presi-
dent for academic affairs. No refunds will be made unless the
withdrawal is made through the proper channels.

Fall/Spring Semester

First 5 days of classes75% of refundable fees*

Next 10 days of classes50% of refundable fees

Next 5 days of classes25% of refundable fees

No refunds are given after the first 20 days of classes.

Summer Term

First 2 days of classes75% of refundable fees

Next 4 days of classes50% of refundable fees

Next 2 days of classes25% of refundable fees

No refunds are given after the first 8 days of classes.

*Refundable fees: tuition, housing, meal plan.

**Financing Your College Education
at MSU**

The university offers a broad program of financial
assistance to eligible students in the form of grants, loans,
scholarships, and work study.

These are terms you might encounter when you apply for
financial aid.

Financial aid package is a combination of different types of
financial aid that may make up an award.

Grants are gift aid. Generally no repayment is required. Eligibility is based on calculated financial need.

Need is the difference between the amount it will cost you to attend MSU for an academic year and the expected contribution for your family. It is a primary factor in determining eligibility for most available aid.

Scholarships are generally awarded on the basis of academic achievement, special talent, and/or financial need. They do not have to be repaid. Eligibility requirements and obligations vary from scholarship to scholarship.

Work Study Programs provide part-time employment for eligible students to help with educational expenses. The work schedule is built around the student's academic schedule.

In many cases, financial aid is made up of a combination of the various types of assistance available (a financial aid package). Students who have been admitted or are enrolled for credit in a degree program are eligible for financial aid funds provided they also meet all other requirements for aid. Financial assistance is granted, depending upon the availability of funds, to all eligible students regardless of sex, race, color, or ethnic origin. About 60 percent of the students attending MSU receive financial aid.

The type and amount of financial aid is generally based upon demonstrated financial need, academic achievement, test scores, and other personal talents and interests. Financial need is determined through analysis of the Financial Aid Form (FAF), available at the Division of Student Financial Aid and Veteran Affairs, MSU, 305 Howell-McDowell Ad. Bldg., Morehead, KY 40351, telephone (606) 783-2011, or the office of any high school guidance counselor. The FAF is analyzed to determine the expected contribution of the student and parents or guardian toward educational expenses.

Apply for financial aid by March 1 for the academic year or fall semester only, November 1 for the spring semester only, and April 1 for the summer terms. Applying before the deadline increases chances of receiving the aid you request. If you are a transfer student applying for financial aid, you must have a Financial Aid Transcript completed by the financial aid office at all schools you attended previously.

Most financial aid is distributed in the form of a check, one-half of the year's award at fall semester registration and the other half at spring semester registration.

For detailed information on financial aid, request the booklet *Student Financial Aid Consumer Information* from the Division of Student Financial Aid and Veteran Affairs.

Selective Service Registration Requirement

Beginning July 1, 1983, students are required to produce evidence of registration with Selective Service to be eligible for Title IV student financial aid (Pell Grant, Supplemental Educational Opportunity Grant, College Work-Study, National Direct Student Loan, Guaranteed Student/Plus Loan, and State Student Incentive Grant Programs). Contact the Division of Student Financial Aid and Veteran Affairs for more information.

Maintaining Satisfactory Progress

The Higher Education Act of 1965, as amended by Congress in 1980, mandates institutions of higher education to establish minimum standards of "satisfactory progress" for students receiving financial aid. The following satisfactory progress standards are applicable to all federal, state, and institutional financial aid programs administered by MSU.

Satisfactory Progress Defined

In order to initially receive or to continue to receive financial aid, a student must demonstrate satisfactory progress as defined below:

Undergraduate students will be considered to be making satisfactory progress for financial aid purposes as long as all the following requirements are met:

1. The student must successfully complete a minimum of 75 percent of the credit hours attempted during the last semester of enrollment. Successful completion for this purpose is defined as receiving a grade of "D" or better.

2. The University Scholarship and Retentions Committee has determined that the student has met the minimum academic requirements to remain enrolled. The University Scholarship and Retention Committee utilizes the academic standards set forth in the university catalog as a basis for determining a student's eligibility to continue enrollment.

3. The student has attempted no more than 170 undergraduate hours at Morehead State University.

Graduate students will be considered to be making satisfactory progress for financial aid purposes as long as all of the following requirements are met:

- a. The student must successfully complete a minimum of 75 percent of the credit hours attempted during the last semester of enrollment. Successful completion for this purpose is defined as receiving a "C" or better.

- b. The student must maintain a minimum 3.0 cumulative grade average.

- c. The student has attempted no more than 45 graduate hours at Morehead State University. (Exception: Those students pursuing a degree in clinical psychology will be permitted to attempt no more than 80 graduate hours at MSU.)

Policies and Procedures

The specific policies and procedures to be used in applying the satisfactory progress standards are outlined below:

1. Satisfactory progress will be evaluated at the close of each semester. (Exception: For the Guaranteed Student Loan and the PLUS Loan programs, evaluation will be completed prior to the certification of the loan application.)

2. For undergraduate students, grades of E, F, I, R, U, W, P, Y and N will not qualify as successful completion of hours attempted. For graduate students, grades of D, E, F, I, R, U, P, Y and N will not qualify as successful completion of hours attempted.

3. Non-credit remedial courses and courses taken for audit are not figured in the calculation of a student's grade average and therefore are not calculated as hours attempted or completed in determining satisfactory academic progress.

4. If otherwise eligible, students will be given financial aid during a term in which they may be repeating a course.

5. Transfer credits from other post-secondary institutions will not be used to determine satisfactory progress.

6. A student who fails to maintain satisfactory progress as defined will not be permitted to receive federal, state, or institutional financial aid.

Procedures for Appeal for Students Who Fail to Maintain Satisfactory Progress Standards

Students who fail to meet satisfactory progress standards as defined, may appeal the ruling to the Division of Student Financial Aid if they believe mitigating circumstances led to their failure to maintain satisfactory progress. Those desiring to appeal must do so in writing on the Satisfactory Progress Appeals Form and must attach supporting documentation. Copies of the appeals form may be obtained in the Division of Student Financial Aid. Students will be notified in writing of the action taken on their appeal.

Reinstatement of Financial Aid Eligibility

Should a student's financial aid eligibility be terminated for failure to maintain satisfactory progress as defined, the eligibility for financial aid will not be reinstated until the student enrolls for a subsequent academic term (fall, spring, or summer term) at his or her own expense and completes the term satisfying the satisfactory progress definition.

Financial aid eligibility will be reinstated immediately for all students whose appeals are upheld.

Scholarships and Awards

Financial aid may take the form of a scholarship, grant, work-study assignment, loan, or an entitlement.

Scholarships. To be considered for a scholarship, you must be admitted to MSU, have submitted at least a partial high school transcript and American College Test (ACT) scores, an MSU Student Financial Aid Personal Data Sheet, and an MSU Scholarship Application form. Obtain forms for scholarship application from the Division of Admissions or the Division of Student Financial Aid and Veteran Affairs (unless you are instructed otherwise in the following scholarship program descriptions).

Presidential Merit Scholarship. The highest academic achievement scholarship awarded by MSU. \$1,500 per year toward tuition and residence hall room rent. This award is renewable.

Regents Scholarship. A non-renewable \$600 award toward residence hall room rent.

Two-Year College Transfer Scholarship. A non-renewable \$400 award toward residence hall room rent.

Morehead State University Grant. A \$1,000 renewable award primarily for high school graduates from Adams, Brown, Clermont, Hamilton, Highland, Lawrence, and Scioto counties in Ohio; sons and daughters of MSU alumni who reside out-of-state; and a limited number of other out-of-state students who meet the minimum criteria.

Valedictorian-Salutatorian Award. A non-renewable \$800 award toward residence hall room rent and tuition.

Morehead State University Leadership Award. A non-renewable \$400 award toward resident hall room rent.

Morehead State University Achievement Award. A non-renewable \$400 award toward resident hall room rent.

Honors Program Scholarship. \$600 per year toward residence hall room rent for the academic year. Obtain scholarship applications from the Director, Academic Honors Program, Morehead State University, UPO Box 697, Morehead, KY 40351. This award is renewable.

Army ROTC Scholarship. Awarded for periods from one to four years; pays for tuition, textbooks, laboratory fees, and other specified educational expenses and a tax-free subsistence allowance of \$100 per school month. Contact the Professor of Military Science, MSU, UPO Box 1361, Morehead, KY 40351.

E.O. Robinson Mountain Fund Nursing Student Scholarship. For needy students from Eastern Kentucky; maximum annual award is \$500.

Northeast Kentucky Hospital Foundation Nursing Student Scholarship. For needy students from Northeastern Kentucky who demonstrate acceptable academic achievement.

Athletic Scholarships. Based on athletic potential, these scholarships are limited in number by regulation or institutional policy. Contact the coach of the sport in which you wish to compete or the Director of Athletics, MSU, UPO Box 698, Morehead, KY 40351, telephone (606) 783-2088.

Other Scholarships. The university offers a number of departmental scholarships in areas such as music, debate, speech, theatre, and radio and television. You may wish to

contact the department in which you have an interest to explore specific scholarship opportunities.

Outside Funded Scholarships. Granted by agencies outside the university, these are administered through the Division of Student Financial Aid and Veteran Affairs in accordance with instructions of the donor. If you are to receive such an award, you should ask the donor agency to mail the award and complete instructions for its disposition to the Division of Student Financial Aid and Veteran Affairs, MSU, Morehead, KY 40351. The telephone number is (606) 783-2011.

Financial Aid

Grants. Repayment is normally not required for the Pell Grant, Supplemental Educational Opportunity Grant (SEOG), or Kentucky Higher Education Assistance Authority Grant (KHEAA). To be considered for these grants you must complete the KFAF or FAF and the MSU Student Financial Aid Personal Data Sheet. Request forms from MSU's Division of Student Financial Aid and Veteran Affairs or any high school guidance counselor.

Pell Grant. A federally-funded program; eligibility and amount are determined by a standard financial needs analysis formula.

SEOG. A federally-subsidized award based on need. Awards may range from \$200 to \$2,000 per academic year.

KHEAA Grant. A state program based on need. Grants range from \$200 to \$300 per academic year.

Work-Study Programs. The work-study programs provide salaried work in a variety of offices and departments at the university; participants are paid every two weeks.

College Work-Study Program (CWSP). A federally subsidized program based on need.

Institutional Work-Study Program (IWSP). Sponsored by the university, this program is geared to students with specific skills or talents.

Loans. Loans must be repaid, and are available in differing amounts and under varying conditions. Types are National Direct Student Loan (NDSL), Guaranteed Federally Insured Student Loan (GSL), Plus Loan Programs (PLUS), Nursing Student Loan (NSL), and the Emergency Loan Fund.

NDSL. A federally subsidized program based upon financial need and funds available. Eligible students may borrow (at 5 percent interest) up to \$3,000 for the first two years of study, with a maximum of \$6,000 for undergraduate work.

GSL. Allows students to borrow money directly from participating private lending institutions (bank, credit union, savings and loan association, or other participating lender). Maximum undergraduate loan is \$2,500 a year, to be repaid at the current rate of 9 percent (an origination fee of 5 percent of the face value is deducted from the loan by the lender).

PLUS. Allows independent undergraduate students and parents (natural father, mother, legal guardian, or adoptive parent) of dependent undergraduate students to borrow money from a private lending institution for student educational expenses. Independent undergraduate students may borrow up to \$2,500 per year, less GSL funds borrowed for the year. Parents may borrow up to \$3,000 per academic year, per student. The current rate of interest is 12 percent, and the first payment is due within 60 days of disbursement at the rate of at least \$600 a year on a maximum 10-year repayment schedule.

NSL. For eligible students enrolled full time in MSU's nursing program. Total of the award depends on financial need and amount of funds available: up to \$2,500 a year, depending on need.

Emergency Loan Fund. Sponsored by MSU and the Student Association, this fund assists students in emergency situations. Students may borrow up to \$20 on a short-term, no-interest basis, depending on funds available. Apply in person to the Division of Student Financial Aid and Veteran Affairs.

Entitlements. Entitlement programs include Veterans Administration Educational Assistance G.I. Bill and benefits for veterans' dependents; tuition waiver for dependents of Kentucky veterans; and Vocational Rehabilitation Assistance.

Veterans Administration (V.A.) Educational Assistance. For eligible veterans (G.I. Bill) and/or eligible children, wives, and widows of veterans who died or were permanently and totally disabled as the result of service in U.S. Armed Forces (V.A. benefits program). Eligibility is determined by the V.A. For information and application forms, contact the Division of Financial Aid and Veteran Affairs or the Veterans Administration Office, 600 Federal Place, Louisville, KY 40202, phone (toll-free) 1-800-292-4562.

Tuition Waiver for Dependents of Kentucky Veterans. Eligibility determined by Dept. for Military Affairs, Kentucky Center for Veterans Affairs, 600 Federal Place, Room 136J, Louisville, KY 40202. For information call the MSU Division of Student Financial Aid and Veteran Affairs.

Vocational Rehabilitation. For eligible individuals with physical or emotional disabilities; eligibility determined by the Vocational Rehabilitation Service in the student's community. If you are already enrolled at the university, contact

the Vocational Rehabilitation Office in Mays Hall, phone (606) 783-1527.

Housing

Housing is provided in 14 residence halls and 308 married housing units. All residence halls and married student apartments are within less than a 10-minute walk of on-campus classrooms. Additional off-campus mobile homes for married students are available within a short drive of campus.

Costs range from \$343 to \$385 per semester for a residence hall room and from \$140 to \$165 monthly for married student accommodations. See section on Fees.

Full-time undergraduate students are required to live in university housing unless they are commuters living with immediate family members or have permission from the Bureau of Student Affairs. When you complete the Residence Hall Application you may indicate the residence hall you wish to live in and who you would like to have for a roommate. If that person agrees to be your roommate, we will try to assign you to the same room. You may request a change of room or roommate after the semester begins.

To apply for university housing, complete the Residence Hall or Married Student Housing Application and return it to the Division of Student Housing with a deposit of \$25 for a residence hall room or \$50 for a married housing apartment or trailer.

For applications or more information on housing, contact the Division of Student Housing, Morehead State University, 306 Howell-McDowell Ad. Bldg., Morehead, KY 40351, telephone (606) 783-2060.

Academic Programs and Requirements for Graduation

Academic Programs

Table 1 indicates which subjects are degree (baccalaureate, associate) programs, areas, majors or minors, and whether teacher certification is available. Also listed are pre-professional (transfer) programs and one-year (certificate) programs. You can find specific options or emphases within certain degree programs by referring to the catalog page number of the general subject area.

The following terms will assist you as you read through this section:

Area (area of concentration) is a field of specialization requiring not less than 48 semester hours of credit and can be completed in lieu of a major-minor combination.

Associate degree requires not less than 64 semester hours and can be completed in two years or less.

Bachelor's or baccalaureate degree requires not less than 128 semester hours and can be completed in four years or less.

Certificate is a document indicating that a student has completed a program of not less than 32 semester hours.

Major is a principal field of specialized study in which a student plans to obtain a degree. A major requires not less

than 30 semester hours of designated course work and must be accompanied by a minor or second major.

Minor is a secondary field of study of not less than 21 semester hours of designated course work; many minors offer teacher certification.

Program of study is the major-minor combination or area of concentration which the student elects to pursue.

Teacher certification program is a state-approved course of study that leads to certification as a public school teacher.

Degree Abbreviations

AA—Associate of Arts
 AAA—Associate of Applied Arts
 AAB—Associate of Applied Business
 AAS—Associate of Applied Science
 AS—Associate of Science
 AB—Bachelor of Arts
 BBA—Bachelor of Business Administration
 BM—Bachelor of Music
 BMED—Bachelor of Music Education
 BS—Bachelor of Science
 BSW—Bachelor of Social Work
 BUS—Bachelor of University Studies

Table 1. Programs of Study.

Subject	Degree	Program	Teacher Certification Program	Catalog Page No.
Accounting	BBA	Area, Minor		41
Agriculture Business Technology	AAS	Two-year		21
Agriculture	BS	Area, Major, Minor		18
Agriculture Vocational Education	BS	Area	Yes	19
Art	AB	Area, Major, Minor	Yes	58
Athletic Training		Minor		47
Basic Business	BBA	Area, Minor	Yes	43
Biology	BS	Major, Minor	Yes	75
Broadcast Technology	AAS	Two-year		34
Business Administration		Minor		41
Chemistry	BS	Major, Minor	Yes	81
Clerical Studies	Certificate	One-year		44
Clothing and Textiles	BS	Area		25
Communications	AB	Area		59
Computer Science				44
Construction Technology	AAS	Two-year		34
Corrections	AAA	Two-year		92
	AB	Area, Minor		92
Data Processing	AAB	Two-year		44
	BBA	Area, Minor		46
Dietetics	BS	Area		26
Drafting and Design Technology	AAS	Two-year		35
Earth Science	BS	Major, Minor	Yes	82
Economics	BBA	Area, Minor		99
Electrical Technology	AAS	Two-year		35
Electronics Technology	AAS	Two-year		35
Elementary Education	AB	Area	Yes	54
Engineering Science	AS	Two-year		82
English	AB	Area, Major, Minor	Yes	66
Environmental Studies	BS	Major, Minor		74
Farm Production Technology	AAS	Two-year		22
Fashion Merchandising		Minor		29
	AAS	Two-year		30
Finance	BBA	Area		43
Foodservice Administration	BS	Major, Minor		28
Foodservice Technology	AAS	Two-year		30
French	AB	Major, Minor	Yes	67
Geography	AB	Major, Minor	Yes	87
Geology	BS	Major, Minor		75
German		Minor	Yes	67
Government	AB	Major, Minor	Yes	88
Graphic Arts Technology	AAS	Two-year		35
Health	AB	Major, Minor	Yes	56
History	AB	Major, Minor	Yes	89
Home Economics (General)	BS	Major, Minor		29
(Vocational Education)	BS	Area	Yes	28
Horsemanship		Minor		21
Industrial Education (Exploratory)	BS	Area, Major	Yes	33
(Preparatory)	BS	Area	Yes	32
Industrial Supervision and Management Technology	AAS	Two-year		36
Industrial Technology	BS	Area, Major		39
Integrated Science		Minor		84
Interior Decoration		Minor		29
	AAS	Two-year		30
Interior Design	BS	Area		27
Journalism	AAA	Two-year		61
	AB	Major, Minor	Yes	60
Learning and Behavior Disorders	AB	Area	Yes	55
Machine Tool Technology	AAS	Two-year		36
Management	BBA	Area		49
Marketing	BBA	Area, Minor		49

(cont'd)

Table 1. Programs of Study. (continued)

Mathematics and Computer Programming	BS	Area		80
Mathematics	BS	Major, Minor	Yes	80
Medical Technology	BS	Area		76
Military Science		Minor		89
Mining and Reclamation Energy Studies	BS	Area, Minor		38
Mining Technology	AAS	Two-year		38
Music Education	BMED	Area	Yes	67
Music	AB	Major, Minor		68
	BM	Area		68
Nursing	AAS	Two-year		37
Office Management	AAB	Two-year		44
Organization Communication		Minor		63
Ornamental Horticulture	AAS	Two-year		23
Para-Legal Studies	AB	Major		88
Philosophy	AB	Major, Minor		70
Physical Education	AB	Major	Yes	56
Physics	BS	Major, Minor	Yes	82
Power and Fluids Technology	AAS	Two-year		36
Pre-Chiropractic		Transfer		79
Pre-Dentistry		Transfer		78
Pre-Engineering		Transfer		83
Pre-Forestry		Transfer		24
Pre-Law		Transfer		88
Pre-Medicine		Transfer		78
Pre-Optometry		Transfer		84
Pre-Pharmacy		Transfer		79
Pre-Physical Therapy		Transfer		79
Pre-Veterinary Medicine		Transfer		23
Production Management	BBA	Area		50
Psychology	AB	Major, Minor	Yes	57
Radio-Television	AB	Major, Minor		62
Radio-Television Broadcasting	AAA	Two-year		62
Radiologic Technology	AAS	Two-year		24
Real Estate	AAB	Two-year		48
	BBA	Area, Minor		50
Reclamation Technology		Minor		39
	AAS	Two-year		39
Recreation	AB	Major, Minor		57
Religious Studies	AB	Major, Minor		70
Safety Education		Minor		56
Secondary Science	BS	Area	Yes	84
Secretarial Studies	Certificate	One-year		44
	AAB	Two-year		45
	BBA	Area, Minor	Yes—Area	47
Small Business Management	AAB	Two-year		48
Social Science	AB	Area	Yes	87
Social Work	AAA	Two-year		92
	BSW	Area		91
Sociology	AB	Major, Minor	Yes	90
Spanish		Minor	Yes	67
Special Education	AB	Major, Minor		55
Speech	AB	Major, Minor	Yes	59
Speech and Theatre	AB	Major	Yes	59
Statistics		Minor		80
Theatre	AB	Major, Minor	Yes—Minor	63
Training Mentally Handicapped	AB	Area	Yes	55
University Studies	AA	Two-year		10
	BUS	Four-year		9
Veterinary Technology	AAS	Two-year		25
Vocational Trade and Industrial Education	AAS	Two-year	Yes	36
Welding Technology	AAS	Two-year		37

Requirements for Graduation

To earn an undergraduate degree or certificate, you must meet general university requirements and specific program of study requirements. Program of study requirements are explained in the academic programs section of this catalog. What follows here are the general university requirements for bachelor's degrees, associate degrees, one-year certificates, and second degrees.

Check Sheets

To help you identify the requirements for graduation in the program you are enrolled in, you must file an approved check sheet or an approved teacher education program check sheet with the Office of Registrar no later than the end of your sophomore year (or freshman year if you are in a two-year associate degree program). *Your application for a degree will not be processed until your official check sheet has been filed appropriately.*

To complete a check sheet, you must first secure an unofficial transcript from the Office of Registrar and present it to your advisor, requesting that official area/major/minor forms be prepared. These forms are approved by the necessary department heads and school deans and then sent to the Office of Registrar, where the official check sheet is completed. A copy of the official check sheet is sent to you and your dean.

Should you subsequently change your area/major/minor program, you must follow the same procedure to prepare a new check sheet.

Bachelor's Degree Requirements

You will receive your bachelor's degree after you:

1. Complete a minimum of 128 semester hours of prescribed and elective college credit, 43 semester hours of which must be courses numbered 300 or above. See the academic programs section of this catalog for the specific requirements of your area of concentration or major and minor programs.

2. Earn a minimum cumulative grade-point average of 2.0 on all work completed at the university and on all work completed to satisfy area of concentration or major and minor requirements.

3. Complete an area of concentration of not less than 48 semester hours or a major of not less than 30 semester hours and a minor of not less than 21 semester hours. (While these are minimum requirements, you may also elect to satisfy two majors or a major and more than one minor.) A major, minor, or area of concentration is not required for the Bachelor of University Studies degree.

4. Complete at least 32 semester hours at Morehead State University, with the last 16 hours preceding graduation earned from MSU. Correspondence courses do not satisfy this requirement.

5. Bachelor of Science degree candidates must complete a minimum of 60 semester hours in science or science-related fields.

6. Complete 42 semester hours of general education courses. (Teacher certification requires 45 semester hours of general education courses, including PSY 154, HLTH 150, one physical education activity course and SPCH 110 or 370. See teacher education requirements in the School of Education section.) Some degree programs require specific courses within each general education category. Please refer to your program elsewhere in this catalog for detailed course information. Listed below are the general education course requirements.

Communications and Humanities 15 hours

A total of 9 hours in composition and literature

3 hours—Composition 101 or 103

3 hours—Composition 102 or 192

3 hours—Literature 202, 211, or 212

(Advanced placed students scheduled by Department of Languages and Literature)

A total of 3 hours in oral communications

Speech 110 or 370

A total of 3 hours from one of the following fields:

Fine Arts 160

Foreign languages

Art 263, 264

Music 161, 162, 261, 361, 362

Theatre 100, 110

Natural and Mathematical Sciences 12 hours

A total of 12 hours with at least 3 hours from each of the following areas:

Mathematics 123 or higher

Biological Science 105 or higher

Chemistry, Geoscience, Physics, or Science 100 or higher

3 hours from the three listings above or Data Processing 201 or Philosophy 200, 303, or 306.

Social and Behavioral Sciences 12 hours

A total of 12 hours with at least 3 hours from each of the following clusters:

I. History 131, 132, 141, 142

Economics 101, 201, 202

II. Sociology 101, 170, 203, 305, 354

Psychology 154

III. Government 141, 242, 310

Geography 100, 211, 241, 300

Health 3 hours

A total of 3 hours from either of the following:

Health 150 and one physical education activity class or

Health 203

The following courses may not be used to satisfy general education requirements: Pre 100; Workshops 199 through 599; Cooperative Study 139, 239, 339, 439 and 539; Practicums; Internships; Special Problems; Field Experiences; Selected Topics; Independent Studies; and Research Projects.

Bachelor's Degree with Teacher Certification

See complete information in School of Education.

Bachelor of University Studies Degree Requirements

You do not have to complete a major, minor, or area of concentration for the Bachelor of University Studies degree. You may take a wide variety of subjects or concentrate all studies beyond the general education requirements in a single discipline. For more information, see your advisor or the vice president for academic affairs.

You will receive your Bachelor of University Studies degree after you:

1. Complete a minimum of 128 semester hours of prescribed and elective college credit, 43 semester hours of which must be courses numbered 300 or above.

2. Earn a minimum cumulative grade-point average of 2.0 on all work completed at the university.

3. Complete at least 32 semester hours at Morehead State University, with the last 16 hours preceding graduation earned from MSU. Correspondence courses do not satisfy this requirement.

4. Complete 42 semester hours of general education courses. See the general education course requirements for Bachelor's Degree Requirements.

Associate Degree Requirements

You will receive your associate degree after you:

1. Complete a minimum of 64 semester hours of prescribed and elective college credit. See the academic programs section of this catalog for the specific requirements of your associate degree program. A prescribed program is not required for the Associate of University Studies degree.

2. Earn a minimum cumulative grade-point average of 2.0 on all work at the university.

3. Complete at least 16 semester hours at Morehead State University, including one semester preceding graduation. Correspondence courses do not satisfy this requirement.

4. Complete 15 semester hours of general education courses as follows:

Composition I 3 semester hours

Composition II or

Technical Composition 3 semester hours

An additional 9 semester hours from at least three of the following 10 categories:

- I. SPCH 110 or 370
- II. ENG 202, 211, or 212
- III. MATH 123 or higher
- IV. BIOL 105 or higher, CHEM, PHYS, GEOS or SCI 100 or higher
- V. A. PHIL 200, 303, or 306
B. MATH 123 or higher
C. BIOL 105 or higher, CHEM, PHYS, GEOS or SCI 100 or higher
D. DATA 201
- VI. A. SOC 101, 170, 203, 305, or 354
B. PSY 154
- VII. A. HIS 131, 132, 141, or 142
B. ECON 101, 201, or 202
- VIII. A. GOVT 141, 242, or 310
B. GEO 100, 211, 241, or 300
- IX. A. HLTH 150 and one PHED activity course
B. HLTH 203
- X. A. FNA 160
B. ART 263 or 264
C. MUSH 161, 162, 261, 361, or 362
D. THEA 100 or 110
E. Foreign Language

The following courses may not be used to satisfy general education requirements: Pre 100; Workshops 199 through 599; Cooperative Study 139, 239, 439 and 539; Practicums; Internships; Special Problems; Field Experiences; Selected Topics; Independent Studies; and Research Projects.

Associate of University Studies Degree Requirements

Except for the general education requirements, no prescribed program for study is required for this degree. You may take a wide variety of subjects or concentrate all studies beyond the general education requirements in a single discipline. All other associate degree requirements must be met. (See associate degree requirements above.) For more information, see your advisor or the vice president for academic affairs.

One-Year Certificate Requirements

You will receive your certificate after you:

1. Complete a minimum of 32 semester hours of prescribed and elective college credit. See the academic programs section of this catalog for the specific requirements of your one-year certificate program.

2. Earn a minimum cumulative grade-point average of 2.0 on all work completed at the university.

3. Complete at least 16 semester hours at Morehead State University, including one semester preceding graduation. Correspondence courses do not satisfy this requirement.

4. Complete six semester hours of general education courses as follows:

Composition I 3 semester hours

An additional 3 semester hours from

any area listed under I.—X. of the Associate

Degree Requirements. 3 semester hours

The following courses may not be used to satisfy general education requirements: Pre 100; Workshops 199 through 599; Coop. Study 139, 239, 339, 439 and 539; Practicums; Internships; Special Problems; Field Experiences; Selected Topics; Independent Studies; and Research Projects.

Second Degree Requirements

If you have earned a degree from Morehead State University or any other accredited college or university, you may earn a second bachelor's degree or associate degree by completing program requirements approved by your major department and the following minimum requirements.

For a second bachelor's degree, you must:

1. Hold an acceptable bachelor's degree from an accredited college or university.

2. Complete a program of study approved by the head of your major department, including at least 32 new semester hours earned at Morehead State University. Of these 32, a minimum of 15 semester hours must be earned to complete a new major or area of concentration.

3. Earn a minimum of 2.0 grade-point average for all course work presented to complete the program, in all course work completed at Morehead State University, and in all course work in a major, minor, or area of concentration.

For a second associate degree, you must:

1. Hold an acceptable associate or higher degree from an accredited college or university.

2. Complete a program of study approved by the head of your department, including at least 16 new semester hours (at least 12 must be earned at Morehead State University). At least nine of the 16 semester hours earned must be in courses in a new prescribed associate degree program.

3. Earn a minimum 2.0 grade-point average for all course work presented to complete the program, in all course work completed at Morehead State University, and all course work in the new prescribed associate program.

Applying for Graduation

An Application for Degree Form (available in the Office of Registrar) should be submitted to the Office of Registrar at least one semester before degree requirements are completed. A list of degree candidates is posted outside the Office of Registrar at least two weeks prior to the end of each term.

Commencement. Commencement is observed at the close of each spring semester. If you complete degree requirements during the fall semester, you are awarded your diploma at that time and are invited to participate in the following spring commencement. If you complete requirements during one of the summer terms, you are invited to participate in the preceding spring commencement. Diplomas for summer graduates are awarded at the time of degree completion.

Academic Regulations and Procedures

Registration

To register, you must be admitted to the university and have a personalized registration packet. Registration packets are automatically available at the registration location for new students who have been accepted and for students currently enrolled. If you have not applied, you may do so during registration or for a specific period of time afterward. See the current class schedule for registration deadlines.

Early Registration and Orientation

As a new freshman or transfer student enrolling for the fall semester, you are encouraged to participate in the summer early registration and orientation program. The one-day activity provides an overview of the educational opportunities and facilities of the university. You will also meet with an academic advisor and register for the classes you will be taking during the fall.

Orientation programs are also held during the regular fall and spring registration periods. All new freshmen and transfer students, including those that attended the summer orientation, are required to attend the fall program. The specific dates and times of these activities are mailed to you upon your acceptance to MSU by the Division of Admissions.

Pre-registration

If you are currently enrolled or have been accepted for enrollment, you may pre-register for courses for the following semester or summer term. Complete instructions are published in the term's schedule of classes. Fees are not payable until the regular registration period at the beginning of each term.

Late Registration

You are encouraged to register according to the timetable in the published class schedule. Late registrants are assessed a \$25 late registration fee and often encounter scheduling difficulties. After the scheduled enrollment period, students registering for the first time must report to the Division of Admissions, Breckinridge Hall. Returning students begin the registration process in the Office of Registrar, 205, Howell-McDowell.

Change in Schedule

Schedule changes include adding and dropping a course, changing from one course section to another, changing the number of credits involved in any course, or changing from audit to credit or from credit to audit. Any schedule change must be recorded with the registrar on a drop/add form and must be approved by your advisor and the dean of the school in which the class is offered. Deadlines for making schedule changes are published in the current class schedule.

Course Load

To be classified as full time you must enroll for at least 12 semester hours. Audited courses do not contribute toward a full-time load. If you wish to schedule 19 or more hours, including audited courses, you must have the approval of your academic advisor and the vice president for academic affairs. Six semester hours is the maximum credit you can take during any summer term.

Undergraduates Enrolling for Graduate Credit

If you are in the final semester of undergraduate study and have a grade-point average (g.p.a.) of at least 2.5, you may enroll concurrently in courses for graduate credit according to the following limitations:

Undergraduate Credit Needed for Degree Completion	Graduate Credit Allowed
9	3
6	6
3	9

If the work for a baccalaureate degree is being completed during a summer term, the combined course load may not exceed six hours. Application forms are available in the Office of Graduate Programs, 201 Ginger Hall. Approval must be granted prior to registration.

Student Classification

Classification is determined by the number of credit hours, including transfer work, successfully completed. The classifications are 0-29 hours, freshman; 30-59 hours, sophomore; 60-89 hours, junior; 90 hours and above, senior.

Course Numbering

Courses numbered less than 100 are developmental courses and may not be used to meet program or general education requirements; credits earned are computed in the total required for graduation. Courses numbered 100-499 are undergraduate courses and may be taken by any classification of student if all prerequisites have been met. Courses numbered 500-599 may be taken for graduate or undergraduate credit. Juniors, seniors, and graduate students may enroll in these courses. Courses numbered 600 and above are graduate level courses and are restricted to graduate students only.

Courses

Repeating Courses

As an undergraduate, you may repeat any course regardless of the grade received or the number of times you have attempted the course. Only the grade received on your last attempt is computed in your overall grade-point average (g.p.a.). This practice applies to MSU, and is not necessarily the way other institutions might compute your cumulative g.p.a. if you transfer.

Auditing Courses

To audit a course, you must be admitted to the university and go through the regular registration process. Fees for auditing a course are the same as for courses taken for credit. You may change from audit to credit during the time a course can be added for credit. A change from credit to audit may be made until the last day to drop a course. Deadlines for change of registration status are published in the current class schedule. Courses taken for audit do not contribute toward a full-time load.

Attendance

Prompt and regular attendance in class is expected. Absences for the following reasons are excused, and you will be permitted to make up any work that your instructors consider essential:

1. Illness or health-related problems. In such cases you must present to your instructors an excuse signed by the university nurse or a physician.

2. Representing the university or participating in an authorized field trip. The individual responsible for the activity arranges for the official university excuse.

Instructors are authorized to exercise their discretion in excusing absences for other reasons.

Withdrawals

If you find it necessary to withdraw from school, you must complete a withdrawal form at the Office of the Vice President for Academic Affairs. It is important for your academic record to reflect your official withdrawal; entitled refunds are not made unless your withdrawal is properly recorded.

Grades

Marking System and Scholastic Points

The evaluation of work done by undergraduate students is indicated by letters as follows:

- A—Excellent—Valued at four quality points per semester hour.
- B—Good—Valued at three quality points per semester hour.
- C—Average—Valued at two quality points per semester hour.
- D—Below average—Valued at one quality point per semester hour.
- E—Failure—Valued at no semester hours earned and no quality points.
- I—Incomplete—Given only when a relatively small amount of work is not complete because of illness or other reasons satisfactory to the instructor. Incompletes must be made up by mid-term of the following semester (summer school excluded).
- IP—In progress—Course work has not been completed, and the student must register for same course the following semester; no credit hours or quality points (restricted to approved courses).
- K—Credit, pass-fail courses—Semester hours earned; no quality points; not computed in g.p.a.
- N—Failure, pass-fail courses—No semester hours earned; no quality points; computed in g.p.a.
- P—Withdrew from school passing—Not computed in g.p.a.
- F—Withdrew from school failing—Computed in g.p.a. as credits attempted.
- R—Course repeated—Replaces original grade for repeated course; not computed in g.p.a.
- U—Unofficial withdrawal—Computed as credits attempted; computed as zero quality points in g.p.a. calculation.
- W—Withdrew officially—No hours attempted; not computed in g.p.a.
- Y—Audit credit—No hours attempted; not computed in g.p.a.; not applicable to degree program.

Pass-Fail

The purpose of the pass-fail option is to let you explore elective courses outside your area of specialization without engaging in grade competition with students specializing in those courses. Apply at the office of the dean of your first major by the last day to add a class.

Requirements include the following:

1. A minimum 2.5 cumulative g.p.a. on 30 hours earned at MSU. You are eligible as a transfer student with a minimum

of 30 hours, if at least 12 hours were earned at MSU, and you have a 2.5 g.p.a. on the work completed at MSU.

2. A maximum of 15 hours may be applied toward the total number of hours required for the bachelor's degree; six hours may be applied toward associate degree requirements.

3. The pass-fail option is applicable only to free elective courses. These include courses not required for your area, major, minor, or general education requirements.

4. Each semester you can use the pass-fail option for one course (for any number of hours of credit), or a combination of courses totalling up to three hours.

5. Hours earned in pass-fail work are added to your total hours passed but do not affect your g.p.a. Any grade of D or above is considered passing and is designated by K. A failing grade is designated by N.

6. You may change course registration status from pass-fail to the conventional letter grading system, and vice versa, during the normal period to add a course.

7. You cannot transfer hours earned under the pass-fail option into any degree program.

8. Your status under the pass-fail option is not identified to instructors. Instructors assign a conventional letter grade and the registrar converts the assigned letter grade to a K or N, as applicable.

Honors

Academic Dean's List. To be eligible, you must have passed at least 12 undergraduate hours and have earned at least a 3.4 g.p.a. for the current semester.

President's List. To be eligible, you must have earned a 4.0 g.p.a. as a full-time undergraduate student during the fall and/or spring semesters.

Graduating with Honors. Formal recognition is given to two-year and four-year graduates who have achieved academic excellence. Baccalaureate degree recipients who complete at least 64 semester hours at MSU and earn a cumulative grade-point average of 3.40 to 3.59 graduate *Cum Laude*; 3.60 to 3.89 graduate *Magna Cum Laude*; and 3.90 to 4.00 graduate *Summa Cum Laude*. Associate degree recipients who complete a minimum of 32 semester hours at MSU and earn a cumulative grade-point average of 3.60 or better graduate with distinction. Only work completed at MSU is used in computing grade-point average.

Grade Reports

At the end of each semester and summer term, a final grade report is sent to you at your permanent address. Mid-term grade reports are not mailed, but should be picked up from your advisor. There are no mid-term grade reports for the summer terms.

Transcripts

Request transcripts, either official or unofficial, in writing to the registrar. Requests received by noon are ready for pickup or mailing by noon the next working day. The registrar cannot mail unofficial transcripts; you should pick them up at the registrar's window. Unofficial transcripts cost 25 cents each; your first official undergraduate transcript is furnished without charge; and subsequent official transcripts are \$1 each. Degree recipients are entitled to one official transcript free of charge.

Student Records

In accordance with the Family Educational and Privacy Act and Morehead State University policy, non-directory information from your official cumulative file may not be

released without your written consent except to persons engaged in the proper performance of university duties.

You also have the right to inspect, review, and challenge all official educational records, files, and data directly related to you. Request for access to such records must be in writing to the Registrar, MSU, 205 Howell-McDowell Ad. Bldg.

Questions concerning this law and the university policy may be directed to the Office of Registrar, 201 Howell-McDowell.

Scholastic Standing

Students are eligible to register if they meet the following minimum cumulative scholastic levels:

- I. A 1.6 cumulative grade-point average if 16 or fewer semester hours have been attempted.
- II. A 1.7 cumulative grade-point average if 17-32 semester hours have been attempted.
- III. A 1.8 cumulative grade-point average if 33-48 semester hours have been attempted.
- IV. A 1.9 cumulative grade-point average if 49-67 semester hours have been attempted.
- V. A 2.0 cumulative grade-point average if 68 or more semester hours have been attempted.

Students who do not meet the above standards are given a scholastic warning during their next enrollment. Continued enrollment is permitted as long as measurable scholastic progress is achieved each enrollment period. Students given scholastic warnings are not prohibited from participating in extracurricular activities. Students on scholastic warning who fail to make academic progress may be suspended from the university.

A suspended student may:

1. Apply for readmission after the lapse of one semester (excluding summer school); or
2. Appeal by petitioning a hearing before the university Committee on Academic Standards. Requests for appeals are made in the Office of the Vice President for Academic Affairs, 201 Ginger Hall.

A student readmitted under the above conditions who fails to make academic progress may be dismissed from the university.

Academic Bankruptcy

Academic bankruptcy allows undergraduates with an unacceptable grade-point average (g.p.a.) to drop one semester's work from consideration for MSU general education degree or program requirements.

Undergraduate students who are granted bankruptcy status forfeit credit for all courses in the bankrupt semester. The grades and credit hours earned during that semester are disregarded for MSU requirements, but the notation "academic bankruptcy" appears on the transcript beneath the semester's work.

Undergraduate students declared eligible for bankruptcy forfeit credit for only one specified semester of pre-

baccalaureate study. Bankruptcy cannot be revoked once it has been granted.

Eligibility. Only hours attempted at Morehead State University are considered for bankruptcy; transfer hours are excluded.

These are the requirements for academic bankruptcy:

1. Students must apply for bankruptcy before completing a baccalaureate degree at Morehead State.
2. They must have attempted at least 48 semester hours at MSU.
3. For the term in question, students must have a g.p.a. of at least 1.0 under their cumulative average for all other hours completed at MSU.

Procedure. To apply for academic bankruptcy, request an Academic Bankruptcy Form in the Office of Registrar. Complete the form, have it signed by your academic advisor and/or department head, and take it to the registrar for verification of eligibility. The registrar will notify you, your advisor, and/or head of your department in writing whether or not you are eligible.

If you are ruled ineligible and want to appeal, request reconsideration at the Office of the Vice President for Academic Affairs, 201 Ginger Hall.

Academic Grievance Procedure

Students with an academic complaint or grade challenge should talk first with the instructor involved, before two weeks of the following semester have elapsed. If the student is not enrolled for that semester, he or she should send a written complaint to the instructor and a copy to the instructor's department head. If the complaint is not resolved at that stage, the student has 30 days to file a Student Grievance Form (available in the Office of the Vice President for Academic Affairs).

If the above procedure is impractical or undesirable, the student may complete a Student Grievance Form and return it to the department head involved. The instructor makes a written response to the student's questions, and within one week of receiving the complaint, the department head meets with the student, the advisor (if the student wishes), the instructor, and the respective school dean to review and settle the grievance. Records of the meeting and the recommendation by the department head and dean are forwarded to the vice president for academic affairs and to concerned parties.

If the resulting recommendation is unacceptable to the student, he or she may appeal by petitioning the Student Grievance Committee (or the Graduate Council if a graduate student) within one week of the previous meeting by writing the vice president for academic affairs. Within two weeks of the appeal application, the Student Grievance Committee reviews the matter and previous recommendations, and if necessary requests additional information or the appearance of parties involved. The committee's decision, which is final, is sent to all concerned parties and is enforced by the vice president for academic affairs.

Anyone may appeal to the president of the university if due process or individual rights have been disregarded.

Academic Support Services

Academic Advisement Program

The university provides a program of academic advisement to assist you with information about specific programs and university procedures, with career guidance and counseling, and with general academic support throughout your college experience.

Advisor Assignment

Although you may not have a permanent advisor assigned when you register, department heads and support advisors are available to assist you. A permanent advisor is assigned to you during the first two weeks of the semester you enroll. If you have selected a program of study, you must see the head of that department for the name and office location of your advisor. If you are a general studies student (undecided), you must go to the Office of Instructional Systems, 221 Allie Young Hall. It is your responsibility to make the initial contact with your advisor.

Required Advisor Contacts

You will want to maintain a close relationship by frequent visits with your advisor, but you are required to meet your advisor periodically for at least the following purposes:

1. to obtain your advisor's signature on your trial schedule form prior to registration;
2. to pick up mid-term grade reports;
3. to initiate class changes during the drop/add period;
4. to complete a change of program form if you change your major, minor, or area of concentration, or if you are in general studies and you declare a major, minor, or area of concentration; and
5. to complete a check sheet during your sophomore year (freshman year for associate degree). Transfer students above the sophomore level should schedule such a conference at the end of the first semester at MSU.

Office of Instructional Systems

The Office of Instructional Systems, which has on-campus and off-campus functions, works with both institutional personnel and individual students to encourage academic achievement.

The Special Services staff helps you solve academic, vocational, and personal problems with services in the following areas:

Personal, academic, and career counseling assists you in working through personal and social concerns, choosing courses of study, and selecting academic majors and possible careers.

Support services for handicapped students are available upon referral or your request. Counselors serve as liaisons to university personnel and government agencies, and aid in student adjustment in college.

Academic advisement is available during registration and pre-registration periods as well as during the academic year. Academic advisement includes assistance in course selection, fields of study, schedule preparation, and individual testing.

Learning lab/tutoring services assists you through the use of audiovisual learning aids and computerized instruction. The tutoring program is staffed by peer tutors. Services are available on your request or through referral by the

classroom instructor. All tutoring is done by appointment. The lab, 209 Allie Young Hall, is open Monday through Friday from 9:30 a.m. to 4:30 p.m.

Special classes offered each semester for college credit can help you develop educational and personal skills.

EDAC 102—*Study Skills* teaches improvement of study habits, test-taking skills, and time management.

EDGC 105—*Career Planning* provides an organized approach to decision making, goal setting, coping skills, interest identification, and values clarification.

The Re-entry for Students on Scholastic Warning Program serves selected students who have been placed on scholastic warning and are eligible for academic suspension from the university. Upon written agreement, these students are allowed to return to the university and referred to this program for special assistance such as academic advising, tutoring, supervised study, counseling, and other services that help to establish the appropriate grade-point standing.

Admissions Referral Program offers assistance to transfer and returning students who are admitted or re-admitted on a probationary standing through academic advising, counseling, tutoring, and other services.

The General Studies Program serves those of you who are undecided about a major or program of study. In addition to aiding in course selection, choice of major/minor, and schedule preparation, general studies advisors provide information regarding career planning, university practices and procedures, and facilitate referrals to other programs and agencies for needed services.

Testing and Evaluation Center

The Testing and Evaluation Center provides individual student testing and evaluation on a daily basis in the areas of achievement, aptitude, vocational interest, and personal social adjustment. In concurrence with established policies, the Testing and Evaluation Center also administers all credit by examination programs.

Established testing programs include the ACT, CLEP, GED, GRE, NTE, GMAT, AP, UP, U.S. Civil Service Exams, correspondence exams, and various departmental proficiency examinations. Literature and brochures describing the different testing programs and their functions are available at the Testing and Evaluation Center, 501 Ginger Hall.

University Counseling Center

The University Counseling Center provides individual and group counseling services without charge to university students. Students should feel free to call or stop by the center for an appointment with a counselor to discuss any personal, social, or career-related problem or conflict. The University Counseling Center is located in Mays Hall (phone 783-2123).

Placement Services

To help you secure employment, the Office of Placement Services, 207 Allie Young Hall, maintains full-time job placement services for students and alumni. The services include

credential files, job vacancy listings, on-campus interviews, data on careers and employers, assistance in writing applications and resumes, and assistance in preparing for employment interviews.

Alumni Association

The Alumni Association is an organization composed of graduates and friends of the university and is designed to stimulate interest in the university and its welfare. Active membership in the association is available to all graduates of the university who make a contribution to the University Fund. Associate membership is available to parents of students and friends of the university and also is based on a gift to the University Fund. All graduates receive publications of the Alumni Association.

Camden-Carroll Library

The library is a comfortable building with a five-story library tower, a seating capacity of 1,200 persons, and a collection of more than one-half million volumes. There are 10 service/information desks to assist you in locating and using materials, which are available in open stacks. These are some specialized services and materials offered at Camden-Carroll Library:

I. Special Collections

1. Kentucky Collection
2. Appalachian Regional Collection
3. Rare Book Room—old and valuable resources
4. University Archives—history of Morehead State University
5. Moonlight Schoolhouse—educational museum
6. James Still Collection
7. Jesse Stuart Collection
8. Government Depository Collection

II. Media Services

1. Dial Access Center—audio information resources
2. Microforms Department—materials and equipment for reading and printing
3. Learning Resource Center—audio-visual resources
4. Audio-visual equipment—projectors, record players, tape recorders for in-house use

III. Graphic Arts

1. Photocopying—coin-operated machines
2. Transparencies—black and white transparencies produced
3. Typewriters—for student use
4. Lettering—materials for making signs

IV. Library Data Services

1. Bibliographic retrieval services and Lockheed DIALOG on-line fee for service data bases and Kentucky Economic Information Service
2. Interlibrary loan—teletype and computer terminal connected to other libraries
3. On-line cataloging and verification
4. Computer programs—accessed from the Educational Computing Center in Reed Hall by terminals located on library fourth floor

V. Exhibits

1. Art—student and faculty shows
2. Music—special choral group performances
3. Crafts—demonstration of various crafts
4. Specialized displays—located in library and University Center

IV. Library Instruction

1. Library orientation—organized classes on how to use the library
2. Walking tape tour—self-instruction on how to use the library
3. Library workshops—formal classes on library use
4. Use of Books and Materials—formal class of library use, LSIM 101
5. CAI.I and PILOT.1—Library use by computer-assisted instruction

Academic Opportunities

Cooperative Education

Cooperative Education provides supervised work experience in educational, vocational, governmental, and cultural environments outside the university. You are awarded academic credit and remuneration for each work experience. Semesters of on-campus course work are alternated with semesters of salaried employment in an environment closely associated with your program of study. For additional information, contact your advisor or the head of your department.

Television Courses

Each fall and spring semester a number of undergraduate courses are offered for credit by television. These courses may be applied toward the general education requirements

and/or program of study requirements. Tuition and admission requirements are the same as for on-campus enrollment. For an application contact the Office of the Vice President for Academic Affairs, 201 Ginger Hall.

Army ROTC

The Army ROTC program allows students to earn commissions as second lieutenants in the U.S. Army. The basic course, taken in the freshman and sophomore years, does not require military service after graduation. The advanced course, offered the junior and senior years, is for those who choose to continue in the program and receive commissions after earning a degree. There is a six-week summer camp between the junior and senior years. For information about Army ROTC, contact the professor of military science, (606) 783-2050.

Correspondence Courses

Correspondence courses allow students to complete college or high school credit outside the formal classroom. Admission to the program does not require, nor does it constitute, formal admission to the university. Anyone, regardless of previous training or educational experience, is eligible to apply. Tuition is the same as for on-campus courses. For an application and complete details contact the Correspondence Study Program, 201 Ginger Hall.

Honors Program

The Honors Program is an academically-enriched program that provides highly motivated students with small classes, direct and personal contact with faculty members, and greater curriculum flexibility.

Freshmen and sophomores take honors sections of required general education courses, upper division students participate in at least two honors seminars, and seniors are encouraged to undertake an independent research project in their major field.

Members of the Honors Program receive special opportunities and recognitions. They may enroll for additional credit hours each semester; have their major field content requirements altered for greater flexibility; attend classes as they choose (except for some participatory classes); receive special library privileges, including a separate honors study room; participate in cultural enrichment trips to concerts, plays, and museums in surrounding cities; and are recognized during Academic Honors Day and Commencement. Participation is noted on the academic transcript.

High school students who have composite ACT examination scores of 26 or above and a strong high school academic record are eligible. College students, including transfer and second semester freshmen who have a cumulative 3.5 grade-point average, are invited to become members. If you would like more information or admission forms, contact the Honors Program Director, Morehead State University, UPO Box 697, Morehead, KY 40351.

Academic and Honor Organizations

Numerous organizations offer opportunities for academic enrichment outside the classroom. As a member you may participate in informal discussions with faculty and professionals, field trips, and on-campus programs. Further information is available by contacting the specific organizations listed below.

Academic

Accounting Club—UPO 1041
 Agriculture Club—UPO 1296
 Alpha Lambda Pi (Paralegal)—UPO 1044
 Alpha Tau Sigma (veterinary technology)—UPO 1044
 Art Students League—UPO 1224
 Brotherhood of University Guitarists—UPO 1404
 Environmental Studies Club—UPO 1047
 Foodservice/Dietetics Organization—UPO 954
 Future Interior Designers Organization—UPO 1029
 Geologic Society—UPO 1372
 International Trombone Association—UPO 1266
 Keyboard Club—UPO 1390
 Medical Technology Society—UPO 1055
 National Association of Jazz Educators—UPO 1374
 Percussive Arts Society—UPO 1034
 Phi Alpha Delta (pre-law)—UPO 1273
 Phi Beta Lambda (business)—UPO 1039
 Phi Mu Alpha (music)—UPO 1381
 Political Science Club—UPO 1385
 Prae Medicorum (pre-medicine)—UPO 1386
 Pre-Veterinary Medicine Club—UPO 1031
 Rho Epsilon (real estate)—UPO 1017
 Science and Math Club—UPO 2405
 Sigma Alpha Iota (music)—UPO 1392
 Sigma Delta (health, physical education, and recreation)—UPO 1413
 Sigma Tau Epsilon (industrial technology)—UPO 1267
 Student Association of Social Workers—UPO 1396
 Student Correctional Association—UPO 1398
 Student Home Economics Association—UPO 1399
 Student Music Educators National Conference—UPO 1414
 Student National Education Association—UPO 1371
 Student Nurses Association—UPO 1400
 Tubists Universal Brotherhood Association—UPO 1394

Honor

Alpha Delta Mu (social work)—UPO 992
 Alpha Epsilon Rho (broadcasting)—UPO 1043
 Cardinal Key (juniors and seniors)—UPO 1223
 Delta Tau Alpha (agriculture)—UPO 1053
 Gamma Beta Phi Society (scholastic and service)—UPO 1334
 Kappa Delta Pi (education)—UPO 1035
 Kappa Omicron Phi (home economics)—UPO 1052
 Lambda Sigma (sophomores)—UPO 1037
 Scabbard and Blade—UPO 1050
 Theta Alpha Phi (theatre)—UPO 1382

Table 2. Who to See.

For	Who	Where	Phone
Absences			
Advance notice of	Mike Mincey	201 GH	2002
For illness	Staff member	CHC (AY)	2055
Other than illness	Mike Mincey	201 GH	2002
Academic bankruptcy	Your advisor		
Academic probation	Your advisor		
Admission	Division of Admissions	BH	2000
Advisor assignment	Dean of your school or your department head		
Change of major	Your advisor		
Change of program	Your advisor		
Change of schedule	Your advisor		
Check sheets	Your advisor		
Cooperative Education	Your department head		
Correspondence courses	Academic Affairs	201 GH	2002
Counseling services	Testing and Evaluation Center	501A GH	2526
Credit by examination	Testing and Evaluation Center	501A GH	2526
Drop/add	Your advisor or dean of your school		
Extracurricular activities	Student Affairs	301 HM	2070
Fees	Business Office	202 HM	2119
Field Career Experiences	Your department head	201 GH	2002
Financial aid	Financial Aid	305 HM	2011
Grades	Your advisor		
Graduation application	Office of Registrar	205 HM	2008
Honors Program	John Kleber	338 RA	2090
Housing	Housing	302 HM	2060
International student advising	Jack Upchurch	220 AY	2005
Learning Lab	Betty Moran	220 AY	2005
Library	Jack Ellis	CCL	2250
Loans	Financial Aid	305 HM	2011
Minority Student Advisor	Glenn Jones	220 AY	2123
Placement Service	Margaret Shepherd	208 AY	2233
Pre-registration	Your advisor		
Professional Lab. Experiences	John Payne	101 GH	2891
Records, access to	Office of Registrar	205 HM	2008
Registration	Your advisor		
Repeating a course	Your advisor		
Residency reclassification	Division of Admissions	BH	2000
ROTC	Military Science	308 BA	2050
Scholarships	Ron Walke	305 HM	2011
Special Services	Wanda Bigham	220 AY	2005
Counseling	Staff member	220 AY	2005
Learning Lab	Betty Moran	220 AY	2005
Tutoring	Janet Bignon	220 AY	2005
Student teaching	John Payne	101 GH	2891
Testing	Steve Taylor	501A GH	2526
Textbooks	Bill Sharp	ADUC	2081
Transcripts	Registrar window	205 HM	2008
Transfer of credits	Academic Affairs	201 GH	2002
Tutoring	Janet Bignon	220 AY	2005
TV courses	Academic Affairs	201 GH	2002
Veterans affairs	Financial Aid	305 HM	2888
Withdrawals			
From class	Your advisor		
From school	Mike Mincey	201 GH	2002
Writing Lab	Special Services	220 AY	2005

Key to abbreviations: ADUC—Adron Doran University Center; AY—Allie Hall; BA—Button Auditorium; BH—Breckinridge Hall; CCL—Camden-Carroll Library; CHC—Caudill Health Clinic; GH—Ginger Hall; HM—Howell-McDowell Administration Bldg.; RA—Rader Hall.

Departments

Agriculture
Allied Health Sciences
Home Economics
Industrial Education and Technology
Nursing

Program

Mining Technology

The objective of the School of Applied Sciences and Technology is to provide a comprehensive offering of programs which prepares graduates to enter and advance in technical occupations in agriculture, business, education, industry, or the health fields. Associate of Applied Science, Bachelor of Science, and Master of Science degree programs are offered within the School.

Baccalaureate Degree Programs

Agriculture—Area of Concentration
Agriculture—Major
Agriculture—Minor
Clothing and Textiles—Area of Concentration
Fashion Merchandising—Minor
Foodservice Administration—Major
Foodservice Administration—Minor
General Dietetics—Area of Concentration
General Home Economics—Major
General Home Economics—Minor
Horsemanship—Minor
Industrial Education—Area of Concentration
Industrial Education—Major
Industrial Technology—Area of Concentration
Industrial Technology—Major
Interior Decoration—Minor
Interior Design—Area of Concentration
Mining and Reclamation Energy Studies—Area of Concentration
Mining and Reclamation Energy Studies—Minor
Reclamation Technology—Minor
Vocational Agriculture Education—Area of Concentration
Vocational Home Economics—Area of Concentration

Associate Degree Programs

Agriculture Business Technology
Broadcast Technology
Construction Technology
Drafting and Design Technology
Electrical Technology
Electronics Technology
Farm Production Technology
Fashion Merchandising
Foodservice Technology
Graphic Arts Technology
Industrial Education (Vocational Trade and Industrial Education)
Industrial Supervision and Management Technology
Interior Decoration
Machine Tool Technology
Mining Technology
Nursing
Ornamental Horticulture
Power and Fluids Technology

Radiologic Technology
Reclamation Technology
Veterinary Technology
Welding Technology

Pre-Professional Programs

Pre-Forestry
Pre-Veterinary Medicine

Agriculture

The Department of Agriculture offers the following programs:

1. A Bachelor of Science degree with an area of concentration in agriculture, with options in:
 - A. Agriculture Business
 - B. Agriculture Economics
 - C. Agronomy
 - D. Animal Science
 - E. General Agriculture
 - F. Horticulture
2. A Bachelor of Science degree with an area of concentration in vocational agriculture education
3. A Bachelor of Science degree with a major in agriculture
4. A minor in the following areas:
 - A. Agriculture
 - B. Horsemanship
 - C. Reclamation Technology
5. A two-year Associate of Applied Science degree in the following:
 - A. Agriculture Business Technology
 - B. Farm Production Technology
 - C. Ornamental Horticulture
 - D. Reclamation Technology
6. Pre-professional Programs
 - A. Pre-Forestry
 - B. Pre-Veterinary Medicine

Requirements and Suggested Course Sequence

Bachelor of Science Degree

Area of Concentration in Agriculture

The student must complete a minimum of 54 semester hours in the area of agriculture. Twenty-eight semester hours of approved electives must be selected from one of the

following options: agriculture business, agriculture economics, agronomy, animal science, general agriculture, or horticulture.

	Sem. Hrs.
Required Courses in Agriculture	26
AGR 101—General Agriculture	1
AGR 133—Farm Livestock Production	3
AGR 180—Elementary Field Crops	3
AGR 203—Agriculture Economics	3
AGR 211—Soils	3
AGR 215—Horticulture	3
AGR 251—Introduction to Agriculture Mechanics	3
AGR 301—Farm Management	3
AGR 316—Feeds and Feeding	3
AGR 471—Seminar	1
Approved electives in option (see available options below)	28
Additional requirements	8
CHEM 101—Survey of General Chemistry	3
CHEM 101A—Survey of General Chemistry Laboratory	1
CHEM 201—Survey of Organic Chemistry	3
CHEM 201A—Survey of Organic Chemistry Laboratory	1

Options

Agriculture Business

Students who select this option must complete the required courses in the area of concentration in agriculture, ACCT 281—Principles of Accounting I (three semester hours), and 28 semester hours in agriculture and business, including a minimum of nine hours in business. Electives must be selected from at least three of the following groups:

Group I	Sem. Hrs.
AGR 302—Agriculture Finance	3
FIN 252—Mathematics of Finance	3
FIN 560—Financial Markets	3
FIN 360—Business Finance	3
FIN 264—Personal Finance	3
Group II	
OADM 363—Office Management	3
MNGT 301—Principles of Management	3
MNGT 311—Personnel Management	3
Group III	
MKT 350—Salesmanship	3
MKT 450—Consumer Behavior	3
MKT 451—Retail Merchandising	3
MKT 555—Advertising	3
Group IV	
MNGT 261—Business Law I	3
MNGT 461—Business Law II	3
Group V	
AGR 303—Land Economics	3
ACCT 282—Principles of Accounting II	3
FIN 407—Principles of Insurance	3
ACCT 387—Income Tax	3

Agriculture Economics

Students who select this option must complete the required courses in the area of concentration in agriculture and 28 semester hours of requirements and electives in agriculture and economics. Requirements and electives are listed below:

	Sem. Hrs.
Required courses	9
ECON 202—Principles of Economics II	3
ECON 350—Microeconomics Theory	3
ECON 551—Macroeconomics Theory	3
Approved electives	
AGR 302—Agriculture Finance	3
AGR 303—Land Economics	3
AGR 386—Introductory Agricultural Policy	3
ECON 510—History and Economic Thought	3
FIN 342—Money and Banking	3
FIN 343—Investments	3
ECON 547—International Economics	3
MATH 354—Business Statistics	3

Agromony

Students who select this option must complete the required courses in the area of concentration in agriculture and 28 semester hours of approved electives selected from the following list:

	Sem. Hrs.
AGR 205—Farm Records	3
AGR 303—Land Economics	3
AGR 308—Weed Control	3
AGR 311—Soil Conservation	3
AGR 312—Soil Fertility and Fertilizers	3
AGR 334—Entomology	3
AGR 384—Forage Crops	3
BIOL 215—General Botany	4
BIOL 513—Plant Physiology	3
BIOL 514—Plant Pathology	3
BIOL 550—Plant Anatomy	3
CHEM 326, 326A—Organic Chemistry I and Laboratory	4
CHEM 327, 327A—Organic Chemistry II and Laboratory	4
AGR 350—Farm Power and Machinery Management	3
WEL 386—Welding	3

Animal Science

Students who select this option must complete the required courses in the area of concentration in agriculture and 28 semester hours of approved electives selected from the following list:

	Sem. Hrs.
AGR 108—Elementary Horsemanship (Stockseat)	1
AGR 109—Elementary Horsemanship (Saddle Seat)	1
AGR 110—Elementary Horsemanship (Hunt Seat)	1
AGR 118—Intermediate Horsemanship (Stockseat)	1
AGR 119—Intermediate Horsemanship (Saddle Seat)	1
AGR 120—Intermediate Horsemanship (Hunt Seat)	1
AGR 121—Equitation	3
AGR 231—Livestock Judging	3
AGR 237—Poultry Production	3
AGR 242—Light Horse Husbandry	3
AGR 245—Horseshoeing	3
AGR 304—Genetics	3
AGR 330—Livestock Improvement	3
AGR 331—Advanced Livestock Judging	3
AGR 332—Advanced Horsemanship	3
AGR 334—Entomology	3
AGR 335—Equitation Teaching	3
AGR 336—Dairy Cattle Feeding, Breeding and Management	3
AGR 342—Horse Production	3
AGR 343—Beef Production	3
AGR 344—Swine Production	3
AGR 345—Sheep Production	3
AGR 480—Equine Breeding and Reproduction	3
AGR 515—Animal Nutrition	3
BIOL 525—Animal Physiology	3

General Agriculture

Students who select this option must complete the required courses in the area of concentration in agriculture and 28 semester hours of approved electives from the list below. The minimum number of semester hours is shown for each field.

	Sem. Hrs.
(1)—Agriculture economics	3
AGR 205—Farm Records	3
AGR 302—Agriculture Finance	3
AGR 303—Land Economics	3
AGR 305—Marketing of Farm Products	3
AGR 503—Agricultural Policy	3
(2)—Agricultural mechanics	3
AGR 350—Farm Power and Machinery Management	3
(3)—Animal science	6
AGR 231—Livestock Judging	3
AGR 237—Poultry Production	3
AGR 242—Light Horse Husbandry	3
AGR 330—Livestock Improvement	3
AGR 331—Advanced Livestock Judging	3
AGR 336—Dairy Cattle Feeding, Breeding and Management	3
AGR 342—Horse Production	3
AGR 343—Beef Production	3
AGR 344—Swine Production	3
AGR 515—Animal Nutrition	3

(4)—Plant science	6
AGR 212—Landscape Plants	3
AGR 213—Landscape Gardening	3
AGR 216—Floriculture	2
AGR 308—Weed Control	3
AGR 314—Plant Propagation	3
AGR 315—Fruit Production	3
AGR 317—Floral Design	3
AGR 320—Principles of Vegetable Production	3
AGR 321—Greenhouse Production I	3
AGR 322—Greenhouse Production II	3
AGR 325—Turf Management	3
AGR 326—Nursery Management	3
AGR 327—Advanced Landscape Design	3
AGR 384—Forage Crops	3
(5)—Soil science	3
AGR 311—Soil Conservation	3
AGR 312—Soil Fertility and Fertilizers	3

Horticulture

Students who select this option must complete the required courses in the area of concentration in agriculture and 28 semester hours of approved electives from the following list:

	Sem. Hrs.
AGR 212—Landscape Plants	3
AGR 213—Landscape Gardening	3
AGR 216—Floriculture	2
AGR 304—Genetics	3
AGR 308—Weed Control	3
AGR 312—Soil Fertility and Fertilizers	3
AGR 314—Plant Propagation	3
AGR 315—Fruit Production	3
AGR 317—Floral Design	3
AGR 320—Principles of Vegetable Production	3
AGR 321—Greenhouse Production I	3
AGR 322—Greenhouse Production II	3
AGR 325—Turf Management	3
AGR 326—Nursery Management	3
AGR 327—Advanced Landscape Design	3
AGR 334—Entomology	3
BIOL 215—General Botany	4
BIOL 318—Local Flora	3
BIOL 513—Plant Physiology	3
BIOL 514—Plant Pathology	3
BIOL 550—Plant Anatomy	3
BIOL 555—Plant Morphology	3
CHEM 326, 326A—Organic Chemistry I and Laboratory	4
CHEM 327, 327A—Organic Chemistry II and Laboratory	4
HEC 103—Interior Graphics	3

Suggested Course Sequence

	Sem. Hrs.
FRESHMAN YEAR	
First Semester	17
ENG 101—Composition I	3
BIOL 150—Introductory Plant Science	3
AGR 101—General Agriculture	1
AGR 133—Farm Livestock Production	3
PHED—activity course	1
SOC 170—Rural Sociology	3
ECON 101—Introduction to the American Economy	3
Second Semester	16
MATH 152—College Algebra	3
ENG 102—Composition II	3
AGR 180—Elementary Field Crops	3
CHEM 101—Survey of General Chemistry	3
CHEM 101A—Survey of General Chemistry Laboratory	1
AGR—agriculture elective	3
SOPHOMORE YEAR	
First Semester	16
AGR 203—Agriculture Economics	3
AGR 215—Horticulture	3
AGR 211—Soils	3
AGR 251—Introduction of Agriculture Mechanics	3
AGR—agriculture elective	3
Second Semester	16
FNA 160—Appreciation of Fine Arts	3
SPCH 110—Basic Speech	3
PSY 154—Introduction to Psychology	3
CHEM 201—Survey of Organic Chemistry	3
CHEM 201A—Survey of Organic Chemistry Laboratory	1
AGR—agriculture elective	3

JUNIOR YEAR	
First Semester	16
HLTH 150—Personal Health	2
GEOG 100—Fundamentals of Geography	3
General elective	1
AGR 301—Farm Management	3
ENG 202—Introduction to Literature	3
Second Semester	16
AGR 316—Feeds and Feeding	3
AGR—agriculture electives	6
General electives	7
SENIOR YEAR	
First Semester	16
AGR 471—Seminar	1
AGR—agriculture electives	6
General electives	9
Second Semester	16
AGR—agriculture electives	6
General electives	10
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Agriculture electives must be grouped for an option in agriculture business, agriculture economics, agronomy, animal science, general agriculture, or horticulture. General electives may also be taken in agriculture or a related area by students wishing greater depth in the field.

Area of Concentration in Vocational Agriculture Education

The student must complete a minimum of 50 semester hours credit in technical agriculture which includes at least 6 semester hours in each of the fields listed below. This area of concentration is designed and approved for students who wish to teach vocational agriculture in the public schools of Kentucky.

Required courses in technical agriculture	50
AGR Agricultural Economics	6
AGR Agricultural Mechanics	6
AGR Animal Science	6
AGR Horticultural and Plant Science	6
AGR Soil Science	6
AGR—approved agriculture electives	20
Required courses in agriculture education	18
AGR 580—Methods of Teaching Vocational Agriculture	4
AGR 582—Adult and Young Farmer Education	3
AGR 584—Teaching Vocational Agriculture	8
AGR 586—Planning Program in Vocational Agriculture	3

Admission to Teacher Education Program

Students seeking teacher certification must apply for and be admitted to the teacher education program.

Students must have an overall standing of 2.50 in the area of concentration courses before they will be permitted to take agricultural education courses.

Students must be approved by the agricultural staff and recommended for certification.

Suggested Course Sequence

	Sem. Hrs.
FRESHMAN YEAR	
First Semester	14
ENG 101—Composition I	3
AGR 101—General Agriculture	1
BIOL 150—Introduction to Plant Science	3
AGR 133—Farm Livestock Production	3
ECON 101—Introduction to American Economy	3
PHED—activity course	1
Second Semester	15
ENG 102—Composition II	3
PSY 154—Introduction to Psychology	3
GEO 100—Fundamentals of Geography	3
AGR 180—Elementary Field Crops	3
MATH 152—College Algebra	3
SOPHOMORE YEAR	
First Semester	16
CHEM 101—Survey of General Chemistry	3

CHEM 101A—Survey of General Chemistry Laboratory	1
AGR 251—Introduction to Agriculture Mechanics	3
SOC 170—Rural Sociology	3
FNA 160—Appreciation of Fine Arts	3
AGR 215—Horticulture	3
Second Semester	16
CHEM 201—Survey of Organic Chemistry	3
CHEM 201A—Survey of Organic Chemistry Laboratory	1
AGR 203—Agriculture Economics	3
EDSE 207—Foundations of Secondary Education	3
AGR 316—Feeds and Feeding	3
HLTH 150—Personal Health	2
General elective	1
JUNIOR YEAR	
First Semester	16
AGR 211—Soils	3
AGR 350—Farm Power and Machinery Management	3
SPCH 110—Basic Speech	3
GOVT 141—Government of United States	3
EDSE 211—Human Growth and Development	3
General elective	1
Second Semester	16
AGR 301—Farm Management	3
AGR 312—Soil Fertility and Fertilizers	3
AGR—agriculture electives	7
ENG 202—Introduction to Literature	3
SENIOR YEAR	
First Semester	17
AGR 471—Seminar	1
AGR—agriculture electives	11
General electives	5
Second Semester	18
AGR 580—Methods of Teaching Vocational Agriculture	4
AGR 582—Adult and Young Farmer Education	3
AGR 584—Teaching Vocational Agriculture	8
AGR 586—Planning Programs in Vocational Agriculture	3
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Major in Agriculture

Required courses in agriculture	Sem. Hrs.
AGR 101—General Agriculture	1
AGR 133—Farm Livestock Production	3
AGR 180—Elementary Field Crops	3
AGR 203—Agricultural Economics	3
AGR 211—Soils	3
AGR 215—Horticulture	3
AGR 251—Introduction to Agriculture Mechanics	3
AGR 301—Farm Management	3
AGR 316—Feeds and Feeding	3
AGR 471—Seminar	1
Approved agriculture electives	5
Additional requirements	8
CHEM 101—Survey of General Chemistry	3
CHEM 101A—Survey of General Chemistry Laboratory	1
CHEM 201—Survey of Organic Chemistry	3
CHEM 201A—Survey of Organic Chemistry Laboratory	1

Suggested Course Sequence

FRESHMAN YEAR	
First Semester	16
ENG 101—Composition I	3
BIOL 150—Introductory Plant Science	3
AGR 101—General Agriculture	1
AGR 133—Farm Livestock Production	3
General electives	3
ECON 101—Introduction to American Economy	3
Second Semester	16
ENG 102—Composition II	3
CHEM 101—Survey of General Chemistry	3
CHEM 101A—Survey of General Chemistry Laboratory	1
AGR—agriculture elective	3
AGR—180—Elementary Field Crops	3
MATH 152—College Algebra	3
SOPHOMORE YEAR	
First Semester	15
SOC 170—Rural Sociology	3
AGR 215—Horticulture	3
AGR 211—Soils	3

PHED—activity course	1
HLTH 150—Personal Health	2
AGR 203—Agricultural Economics	3
Electives	6
Second Semester	16
FNA 160—Appreciation of Fine Arts	3
AGR 211—Soils	3
CHEM 201—Survey of Organic Chemistry	3
CHEM 201A—Survey of Organic Chemistry Laboratory	1
SPCH 110—Basic Speech	3
Electives	6
JUNIOR YEAR	
First Semester	16
GEOG 100—Fundamentals of Geography	3
AGR 251—Introduction to Agriculture Mechanics	3
AGR 316—Feeds and Feeding	3
Second major electives	7
Second Semester	16
ENG 202—Introduction to Literature	3
AGR 301—Farm Management	3
Second major electives	10
SENIOR YEAR	
First Semester	16
Social science elective	3
AGR 471—Seminar	1
HUM or COMM elective	3
Second major electives	9
Second Semester	17
General electives	11
AGR—agriculture elective	3
Second major electives	3
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A major or minor must also be selected in another field.

Minor in Agriculture

Required courses in agriculture	Sem. Hrs.
AGR 101—General Agriculture	1
AGR 133—Farm Livestock Production	3
AGR 180—Elementary Field Crops	3
AGR 203—Agricultural Economics	3
AGR 211—Soils	3
AGR 215—Horticulture	3
AGR 471—Seminar	1
Approved agriculture electives	4
Additional requirements	4
CHEM 101—Survey of General Chemistry	3
CHEM 101A—Survey of General Chemistry Laboratory	1

Minor in Horsemanship

Required courses in agriculture	Sem. Hrs.
AGR 121—Equitation	3
AGR 242—Light Horse Husbandry	3
AGR 316—Feeds and Feeding	3
AGR 332—Advanced Horsemanship	3
AGR 342—Horse Production	3
Approved agriculture electives	6

Minor in Reclamation Technology

Required courses in reclamation technology	Sem. Hrs.
RCL 301—Reclamation Laws and Regulations	3
RCL 302—Reclamation Management and Systems Planning I	4
RCL 303—Reclamation Management and Systems Planning II	4
CON 102—Surveying I	3
MIN 103—Mining Drafting	3
Approved electives	4

Associate of Applied Science degree

Agriculture Business Technology

The Agriculture Business Technology Program is designed for students interested in a wide range of jobs in agricultural business, sales, and managerial aspects of the agricultural industry.

Required courses	Sem. Hrs.
AGR 133—Farm Livestock Production	3
AGR 180—Elementary Field Crops	3

AGR 203—Agriculture Economics	3
AGR 302—Agriculture Finance	3
AGR 305—Marketing of Farm Products	3
AGR 251—Introduction to Agriculture Mechanics	3
ECON 101—Introduction to American Economy	3
OADM 111—Beginning Typewriting	3
DATA 201—Introduction to Computers	3
FIN 252—Mathematics of Finance	3
MKT 350—Salesmanship	3
ACCT 281—Principles of Accounting I	3
ENG 101—Composition I	3
CHEM 101—Survey of General Chemistry	3
CHEM 101A—Survey of General Chemistry Laboratory	1
ENG 192—Technical Composition	3
BIOL 150—Introduction to Plant Science	3
Approved electives in option	15
(see available options below)	

Options

Animal Science

AGR 211—Soils	3
AGR 237—Poultry Production	3
AGR 316—Feeds and Feeding	3
AGR 330—Livestock Improvement	3
AGR 336—Dairy Cattle Feeding, Breeding, and Management	3
AGR 343—Beef Production	3
AGR 344—Swine Production	3
AGR 345—Sheep Production	3

Crop Science

AGR 215—Horticulture	3
AGR 311—Soil Conservation	3
AGR 312—Soil Fertility and Fertilizers	3
AGR 314—Plant Propagation	3
AGR 320—Principles of Vegetable Production	3
AGR 384—Forage Crops	3

Horticulture

AGR 212—Landscape Plants	3
AGR 213—Landscape Gardening	3
AGR 215—Horticulture	3
AGR 314—Plant Propagation	3
AGR 315—Fruit Production	3
AGR 317—Floral Design	3
AGR 320—Principles of Vegetable Production	3
AGR 325—Turf Management	3

Agriculture Management

AGR 205—Farm Records	2
AGR 301—Farm Management	3
AGR 303—Land Economics	3

Suggested Course Sequence

First Semester	15
BIOL 150—Introduction to Plant Science	3
AGR 133—Farm Livestock Production	3
ECON 101—Introduction to American Economy	3
ENG 101—Composition I	3
AGR 251—Introduction to Agriculture Mechanics	3
Second Semester	16
AGR 180—Elementary Field Crops	3
AGR 203—Agricultural Economics	3
CHEM 101—Survey of General Chemistry	3
CHEM 101A—Survey of General Chemistry Laboratory	1
ENG 192—Technical Composition	3
OADM 111—Beginning Typewriting	3
Third Semester	17
AGR—option elective	5
AGR 302—Agriculture Finance	3
AGR 305—Marketing of Farm Products	3
DATA 201—Introduction to Computers	3
ACCT 281—Principles of Accounting I	3
Fourth Semester	16
AGR—option elective	10
MKT 350—Salesmanship	3
FIN 252—Mathematics of Finance	3
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Farm Production Technology

The Farm Production Technology Program is designed to produce a farm technician highly skilled in managing a farm

enterprise or a certain type of production within an enterprise. Supporting course work is also provided in the related sciences.

Required courses	Sem. Hrs.
AGR 101—General Agriculture	35
AGR 133—Farm Livestock Production	3
AGR 180—Elementary Field Crops	3
AGR 203—Agricultural Economics	3
AGR 211—Soils	3
AGR 215—Horticulture	3
AGR 316—Feeds and Feeding	3
ENG 101—Composition I	3
ENG 192—Technical Composition	3
CHEM 101—Survey of General Chemistry	3
CHEM 101A—Survey of General Chemistry Laboratory	1
BIOL 150—Introduction to Plant Science	3
ECON 101—Introduction to American Economy	3
Approved electives in option	29
(see available options below)	

Options

Animal Science

AGR 231—Livestock Judging	Sem. Hrs.
AGR 237—Poultry Production	3
AGR 242—Light Horse Husbandry	3
AGR 330—Livestock Improvement	3
AGR 331—Advanced Livestock Judging	3
AGR 334—Entomology	3
AGR 336—Dairy Cattle Feeding, Breeding, and Management	3
AGR 342—Horse Production	3
AGR 343—Beef Production	3
AGR 344—Swine Production	3
AGR 345—Sheep Production	3
AGR 350—Farm Power and Machinery Management	3

Agriculture Management

AGR 205—Farm Records	3
AGR 301—Farm Management	3
AGR 302—Agriculture Finance	3
AGR 303—Land Economics	3
AGR 305—Marketing of Farm Products	3
AGR 503—Agricultural Policy	3
ACCT 281—Principles of Accounting I	3
ACCT 282—Principles of Accounting II	3
FIN 252—Mathematics of Finance	3
MKT 350—Salesmanship	3
FIN 264—Personal Finance	3
ECON 201—Principles of Economics I	3
ECON 202—Principles of Economics II	3

Crop Science

AGR 304—Genetics	3
AGR 308—Weed Control	3
AGR 311—Soil Conservation	3
AGR 312—Soil Fertility and Fertilizers	3
AGR 314—Plant Propagation	3
AGR 315—Fruit Production	3
AGR 320—Principles of Vegetable Production	3
AGR 325—Turf Management	3
AGR 334—Entomology	3
AGR 341—Apiculture	3
AGR 350—Farm Power and Machinery Management	3
AGR 384—Forage Crops	3
BIOL 215—General Botany	3

Horticulture

AGR 212—Landscape Plants	3
AGR 231—Landscape Gardening	3
AGR 312—Soil Fertility and Fertilizers	3
AGR 314—Plant Propagation	3
AGR 315—Fruit Production	3
AGR 317—Floral Design	3
AGR 320—Principles of Vegetable Production	3
AGR 321—Greenhouse Production I	3
AGR 322—Greenhouse Production II	3
AGR 325—Turf Management	3
AGR 326—Nursery Management	3
AGR 327—Advanced Landscape Design	3
AGR 334—Entomology	3
AGR 341—Apiculture	3
AGR 350—Farm Power and Machinery Management	3

Suggested Course Sequence

First Semester	16
AGR 101—General Agriculture	1
BIOL 150—Introduction to Plant Science	3
ENG 101—Composition I	3
AGR 133—Farm Livestock Production	3
ECON 101—Introduction to American Economy	3
AGR electives	3
Second Semester	16
AGR 180—Elementary Field Crops	3
AGR 215—Horticulture	3
CHEM 101—Survey of General Chemistry	3
CHEM 101A—Survey of General Chemistry Laboratory	1
AGR 203—Agricultural Economics	3
AGR—option elective	3
Third Semester	16
AGR 316—Feeds and Feeding	3
AGR—option electives	10
AGR 211—Soils	3
Fourth Semester	16
AGR—option electives	13
ENG 192—Technical Composition	3
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Ornamental Horticulture

The Ornamental Horticulture Program is designed for students interested in managing and supervising nurseries, commercial greenhouses, parks, golf courses, and working with or operating their own horticultural firms.

Suggested Course Sequence

	Sem. Hrs.
First Semester	16
BIOL 150—Introduction to Plant Science	3
ENG 101—Composition I	3
AGR 101—General Agriculture	1
AGR 212—Landscape Plants	3
GCT 103—Technical Drawing I	3
AGR 350—Farm Power and Machinery Management	3
Second Semester	16
AGR 205—Farm Records	3
AGR 213—Landscape Gardening	3
ECON 101—Introduction to American Economy	3
AGR 215—Horticulture	3
CHEM 101—Survey of General Chemistry	3
CHEM 101A—Survey of General Chemistry Lab	1
Summer School	6
AGR 235—Supervised Work Experience	6
Third Semester	15
AGR 325—Turf Management	3
AGR 321—Greenhouse Production I	3
AGR 211—Soils	3
ENG 192—Technical Composition	3
AGR 317—Floral Design	3
Fourth Semester	15
AGR 322—Greenhouse Production II	3
AGR 314—Plant Propagation	3
AGR 326—Nursery Management	3
AGR 327—Advanced Landscape Design	3
AGR—Agriculture Elective	3
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Reclamation Technology

The Reclamation Technology Program is designed to prepare individuals for employment in mining as well as industrial positions where land environmental protection is a major consideration. Students develop an understanding of legal aspects of reclamation, federal and state health and safety requirements, surface mining methods, proper land-use concepts, map drafting and report writing.

Suggested Course Sequence

	Sem. Hrs.
First Semester	16
MATH 135—Mathematics for Technical Students	3
GEOS 200—Coal Mine Geology	3

GCT 103—Technical Drawing I	3
MIN 101—Introduction to Mining and Reclamation	3
MATH 110—Problem Solving Techniques	1
ECON 101—Introduction to American Economy	3
Second Semester	16
CHEM 101—Survey of General Chemistry	3
CHEM 101A—Survey of General Chemistry Laboratory	1
CON 102—Survey I	3
MIN 103—Mining Drafting	3
ENG 101—Composition I	3
GEOS 350—Geomorphology	3
Third Semester	16
RCL 301—Reclamation Laws and Regulations	3
GCT 320—Supervisory Practices	3
RCL 302—Reclamation Management and System Planning I	4
AGR 211—Soils	3
CON 104—Surveying II	3
Fourth Semester	16
MIN 303—Mining Laws and Management	3
ENG 192—Technical Composition	3
RCL 303—Reclamation Management Systems Planning II	4
AGR 207—Land Conservation and Forest Management	3
Approved technical elective	3
	64

Pre-Veterinary Medicine Curriculum

Students interested in becoming veterinarians may enroll in the Department of Agriculture at Morehead State University and complete their requirements for admission to veterinary school. Since competition for admission to veterinary medicine is keen, students should work closely with the pre-veterinary medicine advisor.

The state of Kentucky is a participating member in the Southern Regional Education Board's plan under which legal Kentucky residents may attend schools of veterinary medicine at Auburn University and Tuskegee Institute. In this program, the students accepted to those universities are exempt from out-of-state tuition and would pay only the in-state tuition of that university.

A minimum of 80 to 90 semester hours of specified course work is required for application to those schools of veterinary medicine. A grade of D in required courses will not be accepted by the universities. The final selection is made by the admissions committee of the respective school of veterinary medicine.

The following curriculum is designed to meet the requirements of Auburn and Tuskegee Institute. Three years are normally required for completion.

Suggested Course Sequence

	Sem. Hrs.
FRESHMAN YEAR	
First Semester	17
ENG 101—Composition I	3
CHEM 111—Principles of Chemistry I	3
CHEM 111A—Principles of Chemistry I Lab	1
AGR 133—Farm Livestock Production	3
BIOL 208—Invertebrate Zoology	3
HIS 131—Introduction to Civilization I	3
PE—Activity Course	1
Second Semester	17
ENG 102—Composition II	3
CHEM 112—Principles of Chemistry II	3
CHEM 112A—Principles of Chemistry II Lab	1
HIS 132—Introduction to Civilization II	3
MATH 152—College Algebra*	3
BIOL 209—Vertebrate Zoology	3
PE—activity course	1
SOPHOMORE YEAR	
First Semester	17
GOVT 141—Government of the U.S.	3
MATH 141—Plane Trigonometry*	3

*Students may by-pass MATH 141 and 152 through the mathematics placement examination.

BIOL 215—Botany or BIOL 150—Introduction to Plant Science	4
CHEM 326, 326A—Organic Chemistry I and Laboratory	4
HUM elective	3
Second Semester	17
PHYS 201, 201A—Elementary Physics I and Laboratory	4
CHEM 327, 327A—Organic Chemistry II and Laboratory	4
BIOL 317—Principles of Microbiology	4
HLTH 150—Personal Health	2
Social science elective	3
JUNIOR YEAR	
First Semester	17
PHYS 202—Elementary Physics II	4
AGR 304—Genetics	4
AGR 316—Feeds and Feeding	3
AGR—Electives**	4
Social Science or Humanities Elective	3
Second Semester	15
MATH 175—Analytic Geometry and Calculus I	4
ALH 302—Medical Terminology	2
AGR 515—Animal Nutrition	3
AGR 231—Livestock Judging**	3
AGR 344—Swine Production**	3

**These courses are not required in the pre-veterinary curriculum but are highly recommended for the students who plan to earn a bachelor of science degree from the Department of Agriculture.

Pre-Forestry Curriculum

Students interested in a career in forestry may take their first two years of course work at Morehead State University and then complete their studies at the University of Kentucky. If at the end of two years a student does not secure admission to the forestry program at the University of Kentucky or at some other university, most of the credits may be applied toward a degree at Morehead State University. The program may be modified to meet entrance requirements at any institution offering a forestry program.

Suggested Course Sequence

	Sem. Hrs.
First Semester	17
ENG 101—Composition I	3
BIOL 150—Introduction to Plant Science	3
CHEM 101—Survey of General Chemistry	3
CHEM 101A—Survey of General Chemistry Laboratory	1
MATH 175—Analytic Geometry and Calculus I	4
PHED—activity course	1
General elective	2
Second Semester	16
ENG 192—Technical Composition	3
AGR 180—Elementary Field Crops	3
CHEM 201—Survey of Organic Chemistry	3
CHEM 201A—Survey of Organic Chemistry Laboratory	1
MATH 353—Statistics	3
PHED—activity course	1
General elective	2
Third Semester	17
SOC 170—Rural Sociology	3
PHYS 201, 201A—Elementary Physics I and Laboratory	4
BIOL 215—General Botany	4
CON 102—Surveying I	3
AGR 211—Soils	3
Fourth Semester	15
HIS 141—Introduction to Early American History	3
SPCH 110—Basic Speech	3
ECON 201—Principles of Economics I	3
PSY 154—Introduction to Psychology	3
ENG—literature elective	3
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Allied Health Sciences

The Department of Allied Health Sciences offers the following programs:

1. A two-year Associate of Applied Science degree in radiologic technology.
2. A two-year Associate of Applied Science degree in veterinary technology.

Associate of Applied Science Degree Degree in Radiologic Technology

The medical field of radiology, through multi-directional advancements in technical knowledge, is a primary factor in providing the entire medical profession with diagnostic information regarding human pathology and disease. The registered radiologic technologist is a vital member of the health care team who practices "the art and the science" of radiology as directed by physicians qualified to request and/or perform radiologic procedures. A nationwide increase in employment opportunities for the registered technologist has called upon educationally accredited radiologic technology programs to meet this need.

The associate degree program in radiologic technology at Morehead State University is designed to prepare and educate individuals in the skills necessary for entry into the medical profession of radiologic technology. Accepted students must spend a minimum of two years' (24 months') enrollment in the Radiologic Technology Program in order to complete the required didactic course work and the clinical internships necessary for graduation. During this 24-month educational period the students will spend approximately 50 percent of their time on campus taking didactic courses, and the other 50 percent will be spent gaining clinical experience in one or more of the program's hospital affiliates.

Separate application and successful completion of the admissions process is required for entry to the Radiologic Technology Program. Applications acceptance period is January 15 to May 15 of each year (or until the class is filled).

Currently, Morehead State University's Radiologic Technology Program is affiliated with the following JCAH approved hospitals:

1. Harlan Appalachian Regional Hospital
Harlan, Kentucky
2. Hazard Appalachian Regional Hospital
Hazard, Kentucky
3. Highlands Regional Medical Center
Prestonsburg, Kentucky
4. Humana Hospital of Lake Cumberland
Somerset, Kentucky
5. Mary Chiles Hospital
Mount Sterling, Kentucky
6. Meadowview Regional Hospital
Maysville, Kentucky
7. Methodist Hospital of Kentucky
Pikeville, Kentucky
8. Morgan County Appalachian Regional Hospital
West Liberty, Kentucky
9. Saint Claire Medical Center
Morehead, Kentucky

Successful completion of the program's curriculum provides the student with a strong educational background in radiation protection, human anatomy and physiology, radiation physics, darkroom chemistry, radiographic film processing, radiographic exposure and equipment, radiographic anatomy and positioning, medical terminology, radiation

biology and pathology, and basic nursing procedures. The program also provides an introduction into the areas of special radiologic procedures such as: cerebral and abdominal angiography, CAT scanning, myelography, mammography, xeroradiography, digital radiography, nuclear magnetic resonance, ultrasonography, radiation therapy, and nuclear medicine. Graduation from this AMA-approved program will make the student eligible to sit for the national certification examination given by the American Registry of Radiologic Technologists.

Curriculum Requirements and Required Course Sequence

NOTE: All RAD courses as listed must be taken in sequence. AHS 302 and BIOL 331 must be taken prior to entry in the second semester of the program curriculum.

	Sem. Hrs.
FIRST SEMESTER	16
RAD 110—Radiographic Anatomy and Positioning I	4
RAD 120—Radiologic Technology I	4
AHS 302—Medical Terminology	2
MATH 135—Mathematics for Technical Students	2
BIOL 331—Human Anatomy	3
SECOND SEMESTER	12
RAD 130—Clinical Internship I	10
RAD 131—Special Problems—Nursing Procedures	2
FIRST SUMMER SESSION	6
RAD 210—Radiographic Anatomy and Positioning II	3
ENG 101—Composition I	3
SECOND SUMMER SESSION	6
RAD 220—Radiographic Anatomy and Positioning III	3
RAD 260—Advanced Radiographic Procedures	3
THIRD SEMESTER	12
RAD 230—Clinical Internship II	10
RAD 231—Special Problems—Radiographic Quality	2
FOURTH SEMESTER	18
RAD 240—Radiologic Technology II	3
RAD 250—Radiation Physics and Electronics	3
BIOL 332—Human Physiology	3
ENG 192—Technical Composition	3
PSY 154—Introduction to Psychology	3
RAD 320—Radiographic Pathology and Biology	3
FIRST SUMMER SESSION	4
RAD 330—Clinical Internship III	4
SECOND SUMMER SESSION	4
RAD 340—Clinical Internship IV	4
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Degree in Veterinary Technology

The associate degree program in veterinary technology prepares paraprofessionals for employment as assistants in the veterinary profession. It is endorsed by the Kentucky Veterinary Medical Association and accredited by the American Veterinary Medical Association.

Requirements and Suggested Course Sequence

	Sem. Hrs.
First Semester	18
VET 102—Introduction to Veterinary Technology	3
VET 106—Animal Science and Breeds Identification	3
VET 105—Anatomy of Domestic Animals	3
VET 107—Laboratory Techniques I	3
CHEM 100—Basic Chemistry	3
OADM 111—Beginning Typewriting	3
Second Semester	18
VET 215—Clinical Practices I	2
VET 208—Laboratory Techniques II	3
VET 206—Physiology of Domestic Animals	3
VET 340—Radiology	3
MATH 131—General Math I	3
VET 220—Clinic Rotation I	1
ENG 101—Composition I	3

	Sem. Hrs.
Summer I	6
VET 333—Small Animal Diseases and Nutrition	2
VET 308—Laboratory Techniques III	3
VET 221—Clinic Rotation II	1
Summer II	6
VET 339—Pharmacology	3
VET 210—Parasitology	2
VET 222—Clinic Rotation III	1
Third Semester	14
VET 315—Clinical Practices II	2
VET 346—Large Animal Diseases and Nutrition	3
VET 350—Laboratory Animal Medicine	2
SPCH 110—Basic Speech	3
PHED—Physical Education	1
ENG 192—Technical Composition	3
VET 223—Clinic Rotation IV	1
Fourth Semester	10
Preceptorship	10
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Home Economics

The Department of Home Economics offers the following programs:

1. A Bachelor of Science degree with areas of concentration in:
 - A. Clothing and Textiles, with options in:
 - (1) Design
 - (2) Fashion Merchandising
 - (3) Textile Technology
 - B. General Dietetics
 - C. Interior Design
 - D. Vocational Home Economics Education
2. A Bachelor of Science degree with a major in the following:
 - A. Foodservice Administration
 - B. General Home Economics
3. A minor in the following:
 - A. Fashion Merchandising
 - B. Foodservice Administration
 - C. General Home Economics
 - D. Interior Decoration
4. A two-year Associate of Applied Science degree in the following:
 - A. Fashion Merchandising
 - B. Foodservice Technology
 - C. Interior Decoration

Requirements and Suggested Course Sequence

Bachelor of Science Degree

Area of Concentration in Clothing and Textiles

This curriculum prepares individuals preparing to enter careers in retailing or industry such as fashion merchandising, textile technology, or costume design. Students may take curriculum of selected courses from home economics and related fields of study.

	Sem. Hrs.
Required courses in home economics	38
HEC 130—Elementary Foods	3
HEC 141—Basic Clothing Construction	3
HEC 240—Textiles	3
HEC 241—Advanced Clothing Problems	3
HEC 303—Health of the Family	3
HEC 340—Textile Testing	2

HEC 341—Flat Pattern Design	2
OR	
HEC 545—Clothing Design in Draping	3
HEC 344—Historic Costume	
OR	
HEC 480—Historic Textiles	3
HEC 362—Consumer Education	3
HEC 451—Home Furnishings	3
HEC 453—Marriage and Family Living	3
HEC 471—Seminar	1
HEC 541—Tailoring	3
HEC 542—Social-Psychological Aspects of Clothing	3
Approved electives in option	12
(See available options below)	

Additional requirements	15
ART 291—Color and Design	3
BIOL 331—Human Anatomy	3
CHEM 101—Survey of General Chemistry	3
CHEM 101A—Survey of General Chemistry Laboratory	1
SCI—science elective	5

Options

Design

ART 101—Drawing I	3
ART 202—Composition and Drawing	3
ART 204—Figure Drawing I	3
ART 241—Crafts I	3
ART 365—Arts of the United States I	3
ART 555—Advanced Art Problems	1-6
HEC 251—Household Equipment or approved elective	3
HEC 343—Textiles for Interiors	3
HEC 346—Introduction to the Apparel Industry	3
HEC 351—Housing	3
HEC 557—Interior Decoration Projects	3
GCT 102—Graphic Arts I	3
GCT 103—Technical Drawing I	3
GCT 305—Housing	3

Fashion Merchandising

HEC 343—Textiles for Interiors	3
HEC 346—Introduction to the Apparel Industry	3
ECON 201—Principles of Economics I	3
MKT 304—Marketing	3
MKT 350—Salesmanship	3
MKT 450—Consumer Behavior	3
MKT 451—Retail Merchandising	3
MNGT 160—Introduction to Business	3
MNGT 461—Business Law I	3
OADM 136—Business Calculations	3
OADM 190—Office Accounting	3
OADM 111—Beginning Typewriting	3
OADM 112—Intermediate Typewriting	3
OADM 321—Business Communications	3

Textile Technology

HEC 343—Textiles for Interiors	3
HEC 543—Advanced Textile Testing	3
HEC 544—Dyes and Finishes	3
Approved science electives	3

Suggested Course Sequence

FRESHMAN YEAR	Sem. Hrs.
First Semester	15
ENG 101—Composition I	
OR	
ENG 103—Composition III	3
ART 291—Color and Design	3
HEC 240—Textiles	3
Natural science elective	3
Mathematics elective	3
Second Semester	16
ENG 102—Composition II or	
ENG 192—Technical Composition	3
HEC 141—Basic Clothing Construction	3
Natural science elective	3
Humanities elective	3
PHED—Activity course	1
HLTH 150—Personal Health	3
SOPHOMORE YEAR	
First Semester	16
CHEM 101—Survey of General Chemistry	3
CHEM 101A—Survey of General Chemistry Laboratory	1

Literature elective	3
HEC 241—Advanced Clothing Problems	3
Social science elective	3
Speech elective	3

Second Semester	15
HEC 344—Historic Costume	
OR	
HEC 480—Historic Textiles	3
HEC 340—Textiles Testing	3
HEC 130—Elementary Foods	3
Social science elective	3
Natural science elective	3

JUNIOR YEAR

First Semester	15
HEC 453—Marriage and Family Living	3
HEC 451—Home Furnishings	3
BIOL 331—Human Anatomy	3
HEC—Home economics option	3
Social and behavioral sciences elective	3
Second Semester	18
HEC 341—Flat Pattern Design	
OR	
HEC 545—Clothing Design in Draping	3
HEC 362—Consumer Education	3
Social and behavioral sciences elective	3
General electives	9

SENIOR YEAR	
First Semester	17
HEC 303—Health of the Family	3
HEC 541—Tailoring	3
HEC—Home economics option	6
General electives	5
Second Semester	16
HEC 471—Seminar	1
HEC 542—Social and Psychological Aspects of Clothing and Textiles	3
HEC—Home economics option	3
General electives	9

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Area of Concentration in General Dietetics

Students who complete the general dietetics area are eligible to apply for dietetic internship or traineeship in order to complete their training to become registered dietitians. Dietitians may work in hospitals, university foodservice, research, college teaching, or as consultants.

Sem. Hrs.	
Required courses in home economics	44
HEC 120—Food and People Interactions	3
HEC 130—Elementary Foods	3
HEC 230—Quantity Food Purchasing	3
HEC 231—Food and Nutrition Management	3
HEC 232—Foodservice Sanitation and Safety	3
HEC 310—Nutrient Supply/Demand	3
HEC 331—Foodservice Systems Management	3
HEC 334—Quantity Food Preparation	3
HEC 335—Foodservice Equipment	3
HEC 336—Foodservice Administration	3
HEC 337—Food Production Management	3
HEC 410—Bionutrition	3
HEC 433—Diet Therapy	4
HEC 438—Experimental Foods	4

Additional requirements	46
BIOL 217—Elementary Medical Microbiology	
OR	
BIOL 317—Principles of Microbiology	3
BIOL 301—Survey of Biochemistry	3
BIOL 301A—Survey of Biochemistry Laboratory	1
BIOL 332—Human Physiology	3
BIOL 332A—Human Physiology Laboratory	1
CHEM 101—Survey of General Chemistry	3
CHEM 101A—Survey of General Chemistry Laboratory	1
CHEM 201—Survey of Organic Chemistry	3
CHEM 201A—Survey of Organic Chemistry Laboratory	1
*DATA 201—Introduction to Computers	3
DATA 202—Computer Programming BASIC	3
ECON 202—Principles of Economics II	3
ENG 192—Technical Composition	3
ENG 101—Composition I	3
HEC 470—Methods of Teaching Vocational Home Economics	3

*Recommended but not required by ADA.

MATH 152—College Algebra	3
MATH 354—Business Statistics	3
MNGT 301—Principles of Management	3
MNGT 311—Principles of Personnel Management	3
PSY 154—Introduction to Psychology	3
PSY 589—Psychology of Learning	3
SPCH 110—Basic Speech	3
SOC 101—General Sociology	3
SOC—approved sociology elective	3

Suggested Course Sequence

FRESHMAN YEAR

First Semester	16
HEC 130—Elementary Foods	3
CHEM 101—Survey of General Chemistry	3
CHEM 101A—Survey of General Chemistry Laboratory	1
ENG 101—Composition I	3
SOC 101—General Sociology	3
GOVT/GEOG—elective	3

Second Semester	16
HEC 230—Quantity Food Purchasing	3
CHEM 201—Survey of Organic Chemistry	3
CHEM 201A—Survey of Organic Chemistry Laboratory	1
ENG 192—Technical Composition	3
MATH 152—College Algebra	3
PSY 154—Introduction to Psychology	3

SOPHOMORE YEAR

First Semester	16
ECON 202—Principles of Economics II	3
SPCH 110—Basic Speech	3
MNGT 301—Principles of Management	3
Humanities elective	3
Elective	4

Second Semester	16
HEC 120—Food and People Interactions	3
HEC 310—Nutrient Supply and Demand	3
HEC 231—Food and Nutrition Management	3
MNGT 311—Principles of Personnel Management	3
BIOL 301—Survey of Biochemistry	3
BIOL 301A—Survey of Biochemistry Laboratory	1

JUNIOR YEAR

First Semester	16
HEC 232—Foodservice Sanitation and Safety	3
HEC 331—Foodservice Systems Management	3
HEC 334—Quantity Food Preparation	3
BIOL 334—Human Physiology	3
BIOL 333—Human Physiology Laboratory	1
DATA 201—Introduction to Computers	3

Second Semester	15
HEC 337—Food Production Management	3
HEC 410—Bionutrition	3
BIOL 317—Principles of Microbiology	3
Literature elective	3
Approved sociology elective	3

SENIOR YEAR

First Semester	16
HEC 335—Foodservice Equipment	3
HEC 336—Foodservice Administration	3
HEC 438—Experimental Foods	4
HEC 470—Methods of Teaching Vocational Home Economics	3
DATA 202—Computer Programming BASIC	3

Second Semester	17
HEC 433—Diet Therapy	4
MATH 354—Business Statistics	3
Health/physical education elective	3
Electives	7

HEC 280—Introduction to Interior Design	3
HEC 343—Textiles for Interiors	3
HEC 350—Merchandise Display and Promotion I	3
HEC 351—Housing	3
HEC 362—Consumer Education	3
HEC 370—Residential Interior Design, Studio I	3
HEC 375—Commercial Interior Design, Studio II	3
HEC 381—History of Interiors I	3
HEC 382—History of Interiors II	3
HEC 460—Merchandise Display and Promotion II	3
HEC 440—Interior Design Studio III	3
OR	
HEC 339—Cooperative Education	
OR	
HEC 332—Field Experience in Home Economics	3 or 4
HEC 445—Interior Design Studio IV	
OR	
HEC 439—Cooperative Education	
OR	
HEC 332—Field Experience in Home Economics	3 or 4
Additional requirements	31
ART 101—Drawing I	3
ART 291—Color and Design	3
ART 364—Modern and Contemporary Art	3
ART 365—Arts of the United States	3
HIS 131—Introduction to Civilization I	3
HIS 132—Introduction to Civilization II	3
MATH 135—Mathematics for Technical Students	3
PDI 100—Personal Development Institute	1
PHYS 250—Light, Color, Cameras, and Perception	3
OADM 321—Business Communication	3
MKT 350—Salesmanship	3

Suggested Course Sequence

FRESHMAN YEAR

First Semester	16
HEC elective	1
HEC 103—Interior Graphics I	3
ART 291—Color and Design	3
ENG 101—English Composition I	3
MATH 135—Mathematics for Technical Students	3
SOC—sociology elective	3

Second Semester	16
ART 101—Drawing I	3
HEC 104—Interior Graphics II	3
ENG 192—Technical Composition	3
HIS 131—Introduction to Civilization I	3
PSY 154—Introduction to Psychology	3
PDI 100—Personal Development Institute	1

SOPHOMORE YEAR

First Semester	18
HIS 132—Introduction to Civilization II	3
PHYS 250—Light, Color, Cameras and Perception	3
HEC 351—Housing	3
BIOG—biology elective	3
ENG—literature elective	3
HLTH—health elective	3

Second Semester	18
HEC 270—Materials, Techniques, and Design	3
OADM 321—Business Communications	3
HEC 240—Textiles	3
HEC 280—Introduction to Interior Design	3
HEC 252—Problems in Interior Design	3
SPCH—speech elective	3

JUNIOR YEAR

First Semester	15
HEC 343—Textiles for Interiors	3
HEC 370—Residential Interior Design Studio I	3
HEC 381—History of Interiors I	3
MKT 350—Salesmanship	3
Humanities elective—Category C	3

Second Semester	15
HEC 382—History of Interiors II	3
HEC 375—Commercial Interior Design Studio II	3
ART 365—Arts of the U.S.	3
DATA 201—Introduction to Computers	3
Government or geography elective	3

SENIOR YEAR

First Semester	15
HEC 350—Merchandise Display and Promotion I	3
HEC 362—Consumer Education	3
ART 364—Modern and Contemporary Art	3

Area of Concentration in Interior Design

Graduates of the interior design area will be prepared to work as contract, residential, or specialty designers in interior design studios, retail or office furnishings stores, architectural firms, industry, institutions, or self-owned businesses.

Required Courses in Home Economics	Sem. Hrs.	53
HEC 103—Interior Graphics I	3	
HEC 104—Interior Graphics II	3	
HEC 240—Textiles	3	
HEC 252—Problems in Interior Design	3	
HEC 270—Materials, Techniques and Design	3	

HEC 440—Interior Design Studio III	
OR	
HEC 339—Cooperative Education	
OR	
HEC 332—Field Experience in Home Economics	4
Elective	2
Second Semester	15
HEC 460—Merchandise Display and Promotion II	3
PSY 555—Environmental Psychology	3
Electives	5
HEC 445—Interior Design Studio IV	
OR	
HEC 439—Cooperative Education	
OR	
HEC 332—Field Experience in Home Economics	4
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Area of Concentration in Vocational Home Economics Education

The broad-based program requires a balance in all areas of home economics and supporting courses in art, science, and general education. This program is designed and approved for students to qualify to teach vocational home economics in junior and senior high school. In addition, the student must complete 1,000 hours of useful and gainful work experience in order to qualify for a vocational teaching certificate.

Sem. Hrs.

Required courses in home economics	48
HEC 130—Elementary Foods	3
HEC 141—Basic Clothing Construction	3
HEC 240—Textiles	3
HEC 110—Nutrition and Physical Well-Being	3
HEC 351—Housing	3
HEC 355—Child Development	3
HEC 356—Nursery School	3
HEC 362—Consumer Education	3
HEC 451—Home Furnishings	3
HEC 453—Marriage and Family Living	3
HEC 454—Supervised Home Management Experiences	4
HEC electives	14
Additional requirements	36
HEC 470—Methods of Teaching Home Economics	3
HEC 573—Curriculum Development in Home Economics	3
EDF 207—Foundations of Education	3
EDF 211—Human Growth and Development	3
EDF 311—Learning Theories in the Classroom	3
EDSE 312—Teaching Skills and Media	3
EDSP 332—Teaching the Exceptional Student	3
Professional Semester*	
EDSE 415—Teacher in Today's School	3
EDSE 416—Student Teaching	12

1,000 hours work experience required for Vocational Teaching Certificate.

*The professional semester will immediately follow HEC 470 and HEC 573.

Suggested Course Sequence

FRESHMAN YEAR	Sem. Hrs.
First Semester	18
ENG 101—Composition I	3
HEC 130—Elementary Foods	3
HEC 101—Introduction to Home Economics	3
SCI 103—Introduction to Physical Sciences	3
DATA 201—Introduction to Computers	3
SPCH 110—Basic Speech	3
Second Semester	18
ENG 102—Composition II	3
SCI 105—Introduction to Biological Sciences	3
HEC 141—Basic Clothing Construction	3
HEC 240—Textiles	3
PSY 154—Introduction to Psychology	3
EDF 207—Foundations of Education	3
SOPHOMORE YEAR	
First Semester	17
HEC 355—Child Development	3
HLTH 150—Personal Health	2
ECON 101—Introduction to American Economy	3
FNA 160—Introduction to Fine Arts	3
EDF 211—Human Growth and Development	3
Social or behavioral science elective	3

Second Semester	18
HEC 356—Nursery School	3
HEC 231—Meal Management	3
ENG 202—Introduction to Literature	3
Social or behavioral science elective	3
EDF 311—Learning Theories in the Classroom	3
HEC 110—Elements of Nutrition	3
JUNIOR YEAR	
First Semester	16
HEC 362—Consumer Education	3
HEC 453—Marriage and the Family	3
PHIL 200—Introduction to Philosophy	3
Natural or mathematical science elective	3
EDSE 312—Teaching Skills and Media	3
PHED—activity course	1
Second Semester	18
General elective	3
Natural or mathematical science electives	6
HEC 351—Housing	3
Home economics electives	3
EDSE 332—Teaching the Exceptional Student	3
SENIOR YEAR	
First Semester	13
HEC 451—Home Furnishings	3
HEC 470—Methods in Teaching Vocational Home Economics	3
HEC 573—Curriculum Development in Home Economics	3
HEC 454—Supervised Home Management Experience	4
Second Semester	17
EDSE 477—Professional Semester	15
EDSE 415—Teacher in Today's School	3
EDSE 416—Student Teaching (12 weeks)	12

Major in Foodservice Administration

The major in foodservice administration prepares graduates for the commercial foodservice field. It provides business and management background for the restaurant industry. A minor in business is required.

Sem. Hrs.

Required courses in home economics	36
HEC 110—Nutrition and Physical Well-Being	3
HEC 120—Food and People Interaction	3
HEC 130—Elementary Foods	3
HEC 132—Introduction to Foodservice	3
HEC 136—Introductory Restaurant Management	3
HEC 231—Food and Nutrition Management	3
HEC 230—Quantity Food Purchasing	3
HEC 331—Foodservice Systems Management	3
HEC 335—Quantity Food Preparation	3
HEC 235—Foodservice Equipment	3
HEC 336—Foodservice Administration	3
HEC 337—Food Production Management	3
Approved home economics electives	3
Additional requirements	15
ECON 202—Principles of Economics II	3
ENG 101—Composition I	3
ENG 192—Technical Composition	3
MATH 131—General Mathematics	3
SPCH 110—Basic Speech	3

Suggested Course Sequence

FRESHMAN	Sem. Hrs.
First Semester	15
HEC 132—Introduction to Foodservice	3
HEC 232—Foodservice Sanitation and Safety	3
ENG 101—Composition I	3
Sociology/psychology requirement	3
MATH 131—General Mathematics	3
Second Semester	15
HEC 110—Nutrition and Physical Well-Being	3
HEC 130—Elementary Foods	3
HEC 136—Introduction to Restaurant Management	3
ENG 192—Technical Composition	3
Physical science	3
SOPHOMORE YEAR	
First Semester	18
HEC 235—Foodservice Equipment	3
ECON 202—Principles of Economics II	3
SPCH 110—Basic Speech	3

MNGT 301—Principles of Management	3
Biological science elective	3
Elective	3
Second Semester	18
HEC 120—Food and People Interactions	3
HEC 231—Food and Nutrition Management	3
HEC 334—Quantity Food Preparation	3
MNGT 311—Principles of Personnel	3
Humanities elective	3
JUNIOR YEAR	
First Semester	18
HEC 331—Foodservice Systems Management	3
HEC 337—Food Production Management	3
Minor elective	3
Government/geography elective	3
Physical science elective	3
Second Semester	15
HEC 230—Quantity Food Purchasing	3
Minor electives	6
Elective	3
Literature elective	3
SENIOR YEAR	
First Semester	18
HEC 336—Foodservice Systems Management	3
Minor electives	3
Electives	6
Health/physical education elective	3
Humanities elective	3
Second Semester	17
Minor electives	9
Electives	8

Major in General Home Economics

Students who have an interest in all aspects of home economics with no interest in specialization will find meaning in this general program. Electives can serve to tailor the degree requirements to meet personal goals. Employment opportunities are dependent upon individual capabilities.

Required courses	Sem. Hrs.
HEC 110—Nutrition and Physical Well-Being	30
OR	
Approved elective	3
HEC 130—Elementary Foods	3
HEC 141—Basic Clothing Construction	3
HEC 251—Household Equipment or approved elective	3
HEC 110—Nutrition and Physical Well-Being	3
HEC 355—Child Growth and Development	3
HEC 362—Consumer Education	3
HEC 453—Marriage and Family Living	3
HEC 471—Seminar	1
Approved home economics electives	8

Suggested Course Sequence

FRESHMAN YEAR	
First Semester	15
ENG 101—Composition I	3
HEC 130—Elementary Foods	3
HEC 251—Household Equipment	3
OR	
Approved elective	3
Math elective	3
SPCH 110—Basic Speech	3
Second Semester	16
ENG 102—Composition II	3
HEC 141—Basic Clothing Construction	3
Natural and mathematical sciences elective	3
Social and behavioral sciences elective	3
General elective	3
PHED—activity course	1
SOPHOMORE YEAR	
First Semester	15
Literature elective	3
HLTH 150—Personal Health	3
Social and behavioral sciences elective	3
General elective	3
Home economics elective	3
Second Semester	15
Communications and humanities elective	3
General electives	6

Natural and mathematical sciences elective	3
Home economics elective	3
JUNIOR YEAR	
First Semester	18
HEC 355—Child Growth and Development	3
General elective	3
Social and behavioral sciences electives	6
Home economics elective	3
HEC 362—Consumer Education	3
Second Semester	16
FNA 160—Appreciation of Fine Arts	3
General electives	7
Home economics elective	3
HEC 110—Nutrition and Physical Well-Being	3
OR	
Approved elective	3
SENIOR YEAR	
First Semester	18
HEC 453—Marriage and Family Living	3
General electives (300-500 level)	12
DATA 201—Introduction to Computers	3
Second Semester	16
HEC 471—Seminar	1
General electives (300-500 level)	15
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Minor in Fashion Merchandising

The minor in fashion merchandising is offered to complement majors in varied disciplines such as art, business, journalism, and general home economics.

Required courses	Sem. Hrs.
HEC 240—Textiles	24
HEC 343—Textiles for Interiors	3
HEC 346—Introduction to the Apparel Industry	3
HEC 350—Merchandise Display and Promotion I	3
HEC 380—Clothing for Consumers	3
HEC 450—Fashion Merchandising Techniques	3
Approved home economics elective in clothing design or construction	3
Approved home economics elective	3

Minor in Foodservice Administration

Students who major in business or other related fields may choose the minor to enhance their understanding of food preparation, service, and management.

Required courses	Sem. Hrs.
HEC 120—Food and People Interaction	24
HEC 130—Elementary Foods	3
HEC 136—Introduction to Restaurant Management	3
HEC 230—Quantity Food Purchasing	3
HEC 232—Foodservice Sanitation and Safety	3
HEC 335—Foodservice Equipment	3
HEC 334—Quantity Food Preparation	3
HEC 337—Food Production Management	3

Minor in General Home Economics

The minor in general home economics is representative of the various subject matter areas in home economics. The program is helpful in providing skills to improve quality of life.

Required courses	Sem. Hrs.
HEC 110—Nutrition and Physical Well-Being	21
HEC 130—Elementary Foods	3
HEC 362—Consumer Education	3
HEC 453—Marriage and Family Living	3
HEC 141—Basic Clothing Construction	3
OR	
HEC 380—Clothing for Consumers	3
Approved home economics electives	6

Minor in Interior Decoration

A minor in interior decoration is offered to be combined with majors from many disciplines. It is particularly

desirable for, but not limited to, majors in art, business, vocational home economics, and clothing and textiles.

	Sem. Hrs.
Required Courses	21
HEC 103—Interior Graphics I	3
HEC 240—Textiles	3
HEC 351—Housing	3
HEC 252—Problems in Interior Design	3
HEC 280—Introduction to Interior Design	3
HEC 382—History of Interiors II	3
HEC 370—Residential Interior Design Studio I	3

Associate of Applied Science Degree

Fashion Merchandising

The two-year associate degree program in fashion merchandising prepares students for employment by retail stores and manufacturers of clothing and textile products. Career positions include buyer, assistant buyer, fashion coordinator, bridal consultant, comparison shopper, and fashion consultant. Many prefer to operate self-owned businesses.

Suggested Course Sequence

	Sem. Hrs.
First Semester	16
HEC 141—Basic Clothing Construction	3
HEC 240—Textiles	3
ART 101—Drawing I	3
ART 291—Color and Design	3
ENG 101—Composition I	3
PDI 100—Personal Development	1
Second Semester	16
HEC 241—Advanced Clothing Problems	3
ENG 102—Composition II	3
FNA 160—Appreciation of Fine Arts	3
OADM 321—Business Communications	3
SPCH 110—Basic Speech	3
General elective	1
Summer work experience (Cooperative Education)	4
Third Semester	15
HEC 343—Textiles for Interiors	3
HEC 346—Introduction to the Apparel Industry	3
HEC 350—Merchandise Display and Promotion I	3
JOUR 364—Feature Writing	3
MKT 350—Salesmanship	3
Fourth Semester	15
HEC 344—Historic Costume	3
HEC 380—Clothing for Consumers	3
ECON 201—Principles of Economics I	3
JOUR 383—Principles of Advertising	3
Home economics elective	3
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Foodservice Technology

The associate degree program in foodservice technology is designed to prepare students for careers in the management and supervision of commercial foodservice areas of hotels, motels, cafeterias, schools, hospitals, airlines, and in commercial food processing. Course work and practical experience are included in management, supervision, purchasing and quantity cooking, as well as courses in the supporting sciences.

Suggested Course Sequence

	Sem. Hrs.
First Semester	15
HEC 130—Elementary Foods	3
HEC 132—Introduction to Foodservice	3
HEC 232—Foodservice Sanitation and Safety	3
MATH 131—General Math	3
ENG 101—Composition I	3
Second Semester	15
HEC 110—Nutrition and Physical Well-Being	3
HEC 120—Food and People Interactions	3
HEC 136—Introduction to Restaurant Management	3
HEC 231—Food and Nutrition Management	3
MNGT 160—Introduction to Business	3

Third Semester	18
HEC 334—Quantity Food Preparation	3
HEC 335—Foodservice Equipment	3
SPCH 110—Basic Speech	3
ECON 101—Introduction to American Economy	3
MNGT 301—Principles of Management	3
Elective	3
Fourth Semester	16
HEC 230—Quantity Food Purchasing	3
HEC 337—Food Production Management	3
ENG 192—Technical Composition	3
MNGT 311—Principles of Personnel Management	3
Elective	4
Summer	
HEC 139/239—Cooperative Education	(4)

Interior Decoration

The two-year associate degree program in interior decoration prepares students for pre-professional employment as assistants and technicians working in conjunction with experienced designers, or in retail sales.

Suggested Course Sequence

	Sem. Hrs.
First Semester	16
HEC elective	1
HEC 103—Interior Graphics I	3
HEC 240—Textiles	3
ENG 101—English Composition I	3
MATH 135—Mathematics for Technical Students	3
ART 101—Drawing I	3
Second Semester	18
HEC 104—Interior Graphics II	3
ART 291—Color and Design	3
ENG 192—Technical Composition	3
HEC 252—Problems in Interior Design	3
HEC 270—Materials, Techniques, and Design	3
HEC 280—Introduction to Interior Design	3
Third Semester	18
HEC 370—Residential Interior Design Studio I	3
HEC 351—Housing	3
HEC 343—Textiles for Interiors	3
HEC 381—History of Interiors I	3
HEC 350—Merchandise Display and Promotion I	3
General elective	3
Fourth Semester	18
DATA 201—Introduction to Computers	3
OADM 321—Business Communications	3
HEC 382—History of Interiors II	3
OADM 190—Office Accounting	3
MKT 350—Salesmanship	3
ART 365—Arts of the United States	3
Summer School	4
HEC 139—Cooperative Education	
OR	
HEC 239—Cooperative Education	
OR	
HEC 332—Field Experience in Home Economics	4
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Industrial Education and Technology

The Department of Industrial Education and Technology offers the following programs:

1. A Bachelor of Science degree with an area of concentration in industrial education, with options in
 - A. Orientation/Exploration Levels (Industrial Arts)
 - B. Preparation Level (Vocational Trade and Industrial Education)

2. A Bachelor of Science degree with an area of concentration in industrial technology, an emphasis in either science and math or business and economics, with options in
 - A. Broadcast Technology
 - B. Construction Technology
 - C. Drafting and Design Technology
 - D. Electrical Technology
 - E. Electronics Technology
 - F. Graphic Arts Technology
 - G. Industrial Supervision and Management Technology
 - H. Machine Tool Technology
 - I. Plastics Technology
 - J. Power and Fluids Technology
 - K. Robotics Engineering Technology
 - L. Welding Technology
 - M. Woods Technology
3. A Bachelor of Science degree with a major in industrial education (industrial arts) with an option in the orientation/exploration levels.
4. A Bachelor of Science degree with a major in industrial technology, with options in
 - A. Broadcast Technology
 - B. Construction Technology
 - C. Drafting and Design Technology
 - D. Electrical Technology
 - E. Electronics Technology
 - F. Graphic Arts Technology
 - G. Industrial Supervision and Management Technology
 - H. Machine Tool Technology
 - I. Plastics Technology
 - J. Power and Fluids Technology
 - K. Welding Technology
 - L. Woods Technology
5. A two-year Associate of Applied Science degree in the following
 - A. Broadcast Technology
 - B. Construction Technology
 - C. Drafting and Design Technology
 - D. Electrical Technology
 - E. Electronics Technology
 - F. Graphic Arts Technology
 - G. Industrial Supervision and Management Technology
 - H. Machine Tool Technology
 - I. Power and Fluids Technology
 - J. Industrial Education (Vocational Trade and Education)
 - K. Welding Technology

Requirements and Suggested Course Sequence

Bachelor of Science Degree

Area of Concentration in Industrial Education Option in Orientation/Exploration Levels

This option is designed to prepare students to teach industrial education at the orientation/exploration levels in the public schools of Kentucky. A student must complete a minimum of 52 semester hours in industrial education and 25 semester hours of professional education courses.

The proposed schedule is a suggested sequence. The requirements for certification may change pending state and university requirements. It is the responsibility of each student to stay in close contact with his or her academic advisor. Admission to the teacher education program is required for this degree.

	Sem. Hrs.
Required courses in industrial education	52
GCT—Technical Drawing	6
EET—Electricity-Electronics	6
GCT—Graphic Arts	6
MFT—Metals-Manufacturing	6
IET—Power and Fluids	6
IET—Woods-Construction	6
IET—Seminar	1
IET—Industrial Design	2
IET—Approved industrial education electives	10
IET—Supervised work experience	3
Industrial teacher education requirements	25
IET 390—Principles of Industrial Education	3
IET 392—Technical Curriculum and Media Development	3
IET 475—Teaching Methods in Industrial Education— Orientation and Exploration Levels	3
EDF 211—Human Growth and Development	3
EDF 311—Learning Theories for Teachers	3
IET 478—Supervised Teaching Practicum	3
In Industrial Education—Orientation and Exploration Levels	8
IET 496—Organization and Management of the Laboratory	2

Suggested Course Sequence

	Sem. Hrs.
FRESHMAN YEAR	
First Semester	15
ENG 101—Composition I	3
GCT 103—Technical Drawing I	3
CON 101—Introduction to Construction Technology	3
MATH 135—Mathematics for Technical Students	3
IET 111—Basic Woods Techniques	3
Second Semester	16
ENG 192—Technical Composition	3
GCT 203—Technical Drawing II	3
IET 211—Advanced Woods Techniques	3
SCI 105—Introduction to Biological Sciences	3
GOVT 310—Current World Problems	3
PHED—activity class	1
SOPHOMORE YEAR	
First Semester	15
ENG 202—Introduction to Literature	3
SPCH 370—Business and Professional Speech	3
PSY 154—Introduction to Psychology	3
MFT 186—Manufacturing and Fabrication	3
EDF 211—Human Growth and Development	3
Second Semester	17
FNA 160—Appreciation of Fine Arts	3
SCI 103—Introduction to Physical Sciences	3
MFT 286—Machine Tool Processes	3
EET 240—Basic Electricity	3
IET 330—Industrial Design	2
General elective	3
JUNIOR YEAR	
First Semester	17
GCT 102—Graphic Arts	3
IET 160—Introduction to Power and Fluids	3
IET 390—Principles of Industrial Education	3
History elective	3
HLTH 150—Personal Health	2
EET 141—Electrical Circuits	3
Second Semester	15
ECON 101—Introduction to American Economy	3
Approved math or science elective	3
General elective	3
IET 261—Power Mechanics	3
GCT 202—Graphic Arts II	3
Summer	
IET 398—Supervised Work Experience	3
SENIOR YEAR	
First Semester	14
IET 392—Technical Curriculum and Media Development	3
Approved technical electives	7
SOC 101—General Sociology	3
IET 571—Seminar	1
Second Semester	16
1st 8 weeks	
IET 475—Teaching Methods in Industrial Education Orientation/Exploration Level	3

EDF 311—Learning Theories for Teachers	3
IET 496—Organization and Management of the Laboratory	2
2nd 8 weeks	
IET 478—Supervised Teaching Practicum	
Orientation/Exploration Level	8
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Area of Concentration in Industrial Education

Option in the Preparation Level

This program is designed primarily for the pre-service student who desires to teach trade and industrial education subjects at the preparation level. In addition to specific course requirements, a work experience component which consists of a minimum of 2,000 clock hours of supervised work experience is required in the teachable industrial occupation. The student may receive 9 hours of credit that counts in the specialization component, or have four years of occupational experience in the specific occupation to be taught. Students pursuing this degree must be admitted into the Teacher Education Program. Individuals completing this program will receive a Provisional High School Certificate for teaching the specific occupational area stated on the face of the certificate. The certificate must be renewed at the end of a 10-year period.

A. Required courses in vocational education-industrial education	52
I. Core	15
IET 100—World of Technology	3
IET 320—Supervisory Practices	3
IET 364—Career and Vocational Guidance	3
IET 391—Trade and Technical Analysis	2
IET 422—Industrial Safety Standards and Enforcement	3
IET 497—Seminar in Vocational Industrial Education	1
II. Vocational education-industrial education courses in the specific occupational area to be taught	24
9 hours of supervised work experience may be counted toward the specific occupational area to be taught.	
III. Technical electives in vocational education-industrial education selected from the following areas: broadcasting technology, construction, drafting and design, electricity, electronics, graphic arts, machine tool, metals, plastics, power and fluids, welding, woods, mining, or radiologic technology	13
B. Industrial teacher education courses	25
IET 390—Principles of Industrial Education	3
IET 392—Technical Curriculum and Media Development	3
IET 393—Methods in Industrial Education	3
EDF 211—Human Growth and Development	3
EDF 311—Learning Theories for Teachers	3
IET 394—Student Teaching in Vocational Industrial Education or 401 Seminar	8
IET 496—Organization and Management of the Laboratory	2
C. Work Experience	
The area of concentration at the preparation level shall include a work experience component consisting of a minimum of 2,000 hours of supervised work experience in the teachable industrial occupation.	

Suggested Course Sequence

FRESHMAN YEAR	Sem. Hrs.
First Semester	15
ENG 101—Composition I	3
IET 100—World of Technology	3
Occupational emphasis elective	3
MATH 135—Math for Technical Students	3
Technical elective	3
Second Semester	15
ENG 192—Technical Composition	3
GCT 103—Technical Drawing I	3
Occupational emphasis elective	3
Approved science or math elective	3
IET 364—Career and Vocational Guidance	3
Summer Semester	3
Supervised Work Experience	3

SOPHOMORE YEAR

First Semester	15
ENG 202—Introduction to Literature	3
IET 390—Principles of Trade and Industrial Education	3
SPCH 370—Business and Professional Speech	3
Occupational emphasis elective	4
PSY 154—Introduction to Psychology	3
Second Semester	15
Occupational emphasis elective	5
EDF 211—Human Growth and Development	3
Technical elective	3
SCI 103—Physical Science	3
General elective	3
Summer Semester	3
Supervised Work Experience	3

JUNIOR YEAR

First Semester	15
IET 391—Trade and Technical Analysis	2
IET 422—Industrial Safety	3
HIST 131—Introduction to Civilization I	3
Technical electives	6
SOC 101—General Sociology	3
Second Semester	15
IET 320—Supervisory Practices	3
SCI 105—Introduction to Biological Sciences	3
Occupational emphasis elective	3
IET 392—Technical Curriculum and Media Development	3
General elective	3
Summer Semester	3
Supervised Work Experience	3

SENIOR YEAR

First Semester	16
IET 497—Seminar in Vocational Industrial Education	1
ECON 101—Introduction to American Economy	3
HLTH 150—Personal Health	2
PHED—activity class	1
GOVT 310—Current World Problems	3
Technical elective	3
FNA 160—Appreciation of Fine Arts	3
Second Semester	16
First eight weeks	
IET 393—Methods in Vocational Education	3
IET 496—Organization and Management of the Laboratory	2
EDF 311—Learning Theories for Teachers	3
Second eight weeks	
IET 394—Student Teaching in Vocational Education	8
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Area of Concentration in Industrial Technology

Industrial technology graduates may be employed in manufacturing, production, design, and other industrial positions which require a general, professional, and technical background. The industrial technologists frequently work in a supervisory or management level position. Industrial sales and distribution also offer excellent opportunities for the industrial technology graduate.

	Sem. Hrs.
Required courses in industrial technology	52
GCT 103—Technical Drawing I	3
IET 317—Time and Motion Study	2
IET 319—Quality Control	3
IET 320—Supervisory Practices	3
IET 330—Industrial Design	2
IET 472—Industrial Practicum	2
IET—Seminar	1
Approved electives in emphasis	15
(Approved electives in either science and math or in business and economics.)	
Approved electives in option	21

(Electives must be approved by the student's advisor and must be courses selected from one of the following options: broadcast technology, construction technology, drafting and design technology, electrical technology, electronics technology, graphic arts technology, industrial supervision and management technology, machine tool technology, mining technology, plastics technology, power and fluids technology, robotics engineering technology, welding technology, or woods technology.)

Suggested Course Sequence

The following suggested sequence is for an option in robotics engineering technology with an emphasis in science and mathematics. It can be modified for any other option or emphasis.

The student who selects the area of concentration in industrial technology with an option in robotics engineering technology will be qualified for an entry level position in the design, application, installation, or supervision of automated and flexible manufacturing systems.

FRESHMAN YEAR	Sem. Hrs.
First Semester	15
ENG 101—Composition I	3
GCT 103—Technical Drawing I	3
MFT 186—Manufacturing and Fabrication	3
EET 141—Electrical Circuits	3
MATH 152—College Algebra	3
Second Semester	15
ECON 101—Introduction to American Economy	3
ENG 192—Technical Composition	3
EET 245—Digital Electronics	3
MATH 141—Plane Trigonometry	3
ROB 170—Fundamentals of Robotics	3
SOPHOMORE YEAR	
First Semester	16
DATA 201—Introduction to Computers	3
MFT 286—Machine Tool Processes	3
EET 345—Microprocessor Electronics	3
PHYS 201—Elementary Physics I	3
PHYS 201A—Elementary Physics Laboratory I	3
ROB 270—Robotics Systems Engineering	3
Second Semester	16
DATA 202—Computer Programming BASIC	3
ENG 202—Introduction to Literature	3
Fine arts elective	3
IET 320—Supervisory Practices	3
PHYS 202—Elementary Physics II	3
PHYS 202A—Elementary Physics II Laboratory	1
JUNIOR YEAR	
First Semester	18
GOVT or GEO elective	3
IET 260—Hydraulics and Pneumatics	3
IET 319—Quality Control	3
MFT 386—NC-CNC Manufacturing Technology	3
EET 442—Industrial Electronics	3
PSY 154—Introduction to Psychology	3
Second Semester	17
BIOL 105—Introduction to Biological Sciences	3
CON 103—Materials Testing	3
DATA 260—FORTRAN Programming I	3
(or new course—Automated Manufacturing Computer Programming)	
IET 330—Industrial Design	2
ROB 370—Robotics Interfacing Engineering	3
WEL 307—Automated Welding Processes	3
SENIOR YEAR	
First Semester	16
GOVT or GEO elective	3
HLTH 203—Safety and First Aid	3
IET 571—Seminar for Industrial Education	1
MATH or SCI elective	3
ROB 470—Robotics Applications Engineering	3
SPCH 370—Business and Professional Speech	3
Second Semester	15
General electives	5
IET 317—Time and Motion Study	2
IET 422—Industrial Safety	3
IET 472—Industrial Practicum	2
MFT 488—Flexible Manufacturing Engineering Technology	3
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Major in Industrial Education Option in the Orientation/Exploration Levels

	Sem. Hrs.
Required courses in industrial education	36
GCT—Technical Drawing	6
EET—Electricity Electronics	3
MFT—Metals-Manufacturing	6
IET—Power and Fluids	3
IET—Woods-Construction	6
IET—Seminar	1
IET—Industrial Design	2

IET—Supervised Work Experience	3
GCT—Graphic Arts	3
Technical elective	3

(Electives must be approved by the student's advisor with a maximum of nine semester hours in any one technical field.)

Industrial teacher education requirements	25
IET 390—Principles of Industrial Education	3
IET 392—Technical Curriculum and Media Development	3
IET 475—Teaching Methods in Industrial Education— Orientation/Exploration levels	3
EDF 211—Human Growth and Development	3
EDF 311—Learning Theories for Teachers	3
IET 478—Supervised Teaching Practicum in Industrial Education—Orientation and Exploration Levels	8
IET 496—Organization and Management of the Laboratory	2

Suggested Course Sequence

FRESHMAN YEAR	Sem. Hrs.
First Semester	16
ENG 101—Composition I	3
GCT 103—Technical Drawing I	3
IET 160—Introduction to Power and Fluids Mechanics	3
MATH 135—Mathematics for Technical Students	3
IET 111—Basic Wood Techniques	3
MATH 110—Problem Solving Techniques	1
Second Semester	16
ENG 192—Technical Composition	3
GCT 203—Technical Drawing II	3
GCT 102—Graphic Arts	3
SCI 105—Introduction to Biological Sciences	3
HLTH 203—Safety and First Aid	3
Minor	1

SOPHOMORE YEAR	
First Semester	15
PSY 154—Introduction to Psychology	3
SPCH 370—Business and Professional Speech	3
EDF 211—Human Growth and Development	3
IET 390—Principles of Industrial Education	3
ENG 202—Introduction to Literature	3
Second Semester	16
Minor	4
SCI 103—Introduction to Physical Sciences	3
FNA 160—Appreciation of Fine Arts	3
MFT 186—Manufacturing and Fabrication	3
Technical elective	3

JUNIOR YEAR	
First Semester	15
IET 330—Industrial Design	2
Minor	4
Social science elective	3
Social science elective	3
IET 286—Machine Tool Processes	3
Second Semester	15
ECON 101—Introduction to American Economy	3
CON 101—Introduction to Construction	3
EET 140—Basic Electricity	3
DATA 201—Introduction to Computers	3
Minor	3

Summer	
IET 398—Supervised Work Experience	3

SENIOR YEAR	
First Semester	16
IET 571—Seminar in Industrial Education	1
General elective	3
Minor	9
IET 392—Technical Curriculum and Media Development	3
Second Semester	16
1st 8 weeks	
IET 475—Teaching Methods in Industrial Education Orientation/Exploration level	3
EDF 311—Learning Theories for Teachers	3
IET 496—Organization and Management of Laboratory	2
2nd 8 weeks	
IET 478—Supervised Teaching Practicum Orientation/Exploration	8
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This sequence planned for a 36 hour major and a 21 hour minor.

Major in Industrial Technology

	Sem. Hrs.
Required courses in industrial technology	30
GCT 103—Technical Drawing I	3
IET 317—Time and Motion	2
IET 319—Quality Control	3
IET 320—Supervisory Practices	3
IET 330—Industrial Design	2
IET 571—Seminar	1
Approved electives in option	16

(Electives must be approved by the student's advisor and must be courses selected from one of the following options: broadcast technology, construction technology, drafting and design technology, electrical technology, electronics technology, graphic arts technology, industrial supervision and management technology, machine tool technology, mining technology, plastics technology, power and fluids technology, radiologic technology, welding technology, or woods technology.)

Suggested Course Sequence

	Sem. Hrs.
FRESHMAN YEAR	
First Semester	16
IET 100—World of Technology	3
GCT 103—Technical Drawing I	3
ENG 101—Composition I	3
MATH 135—Mathematics for Technical Students	3
Minor	4
Second Semester	16
MFT 186—Manufacturing and Fabrication	3
CON 103—Materials Testing	3
ENG 192—Technical Composition	3
ECON 101—Introduction to the American Economy	3
HIST elective	3
General elective	1
SOPHOMORE YEAR	
First Semester	16
EET 140—Basic Electricity	3
IET 320—Supervisory Practices	3
SCI 103—Introduction to Physical Sciences	3
MNGT 160—Introduction to Business	3
FNA 160—Appreciation of the Fine Arts	3
General elective	1
Second Semester	16
IET 327—Applied Industrial Management	3
ENG 202—Introduction to Literature	3
Minor	3
HLTH 203—Safety and First Aid	3
IET elective	4
JUNIOR YEAR	
First Semester	16
IET 319—Quality Control	3
PSY 154—Introduction to Psychology	3
BIOL 105—Introduction to Biological Sciences	3
DATA 201—Introduction to Computers	3
ACCT or ECON elective	4
Second Semester	16
IET 330—Industrial Design	2
MFT 488—Flexible Manufacturing Engineering Technology	3
Minor	3
SPCH 370—Business and Professional Speech	3
DATA elective	4
General elective	1
SENIOR YEAR	
First Semester	16
IET 571—Seminar for Industrial Education	1
IET elective	3
MNGT elective	4
GOVT or GEO elective	3
Minor	5
Second Semester	16
IET 317—Time and Motion Study	2
IET 422—Industrial Safety	3
Minor	2
IET elective	1
General electives	8

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Associate of Applied Science Degree

Broadcast Technology

The broadcast technology program is designed to prepare the individual who seeks employment as a combination announcer and station engineer in the broadcasting industry. Course work includes the area of radio-television announcing and also includes course work in preparation for F.C.C. licensing examinations.

Suggested Course Sequence

	Sem. Hrs.
First Semester	16
GCT 103—Technical Drawing I	3
EET 141—Basic Electricity	3
R-TV 151—Introduction to Broadcast Techniques	2
ENG 101—Composition I	3
IET—Approved industrial technology elective	2
R-TV 155—Broadcast Performance	3
Second Semester	17
EET 251—Basic Electronics	3
MATH 110—Problem Solving Techniques	1
EET 338—Radio Operating Practices	1
R-TV 250—Audio Production and Direction	4
Math elective	3
ENG 192—Technical Composition	3
Third Semester	16
EET 245—Digital Electronics	3
EET 344—Communication Circuits	3
Math elective	3
R-TV 340—Video Production and Direction I	3
EET 242—Transistors and Semiconductors	3
EET 341—Electrical Drafting and Design	3
Fourth Semester	16
EET 444—Transmitter Electronics	3
Approved electronics electives	6
PHYS 202—Elementary Physics II	4
ECON 101—Introduction to American Economics	3

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Construction Technology

The construction technology curriculum prepares for employment in either the home building or commercial building market. With experience, the construction technician may rise to supervisory levels with general and subcontracting firms.

Suggested Course Sequence

	Sem. Hrs.
First Semester	16
CON 101—Introduction to Construction Technology	3
ENG 101—Composition I	3
ECON 101—Introduction to American Economy	3
CON 201—Properties of Construction Materials	3
MATH 135—Mathematics for Technical Students	3
MATH 110—Problem Solving Techniques	1
Second Semester	17
CON 102—Surveying I	3
GCT 103—Technical Drawing I	3
CON 103—Materials Testing	3
EET 240—Residential Wiring	3
CON 204—Codes, Contracts and Specifications	3
Approved technical elective	2
Third Semester	16
IET 111—Basic Woods	3
CON 203—Construction Methods and Equipment	3
CON 104—Surveying II	3
CON 202—Structural Design	3
GCT 404—Architectural Drawing	3
Fourth Semester	15
CON 205—Estimating Construction Costs	3
CON 206—Construction Management	3
ENG 192—Technical Composition	3
IET 320—Supervisory Practices	3
SPCH 370—Business and Professional Speech	3

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Drafting and Design Technology

The drafting and design technology program prepares potential graduates to enter a wide range of jobs in industry. The program develops skills and knowledge in such areas as technical drawing, technical illustration, tool layout and design, machine drawing, housing, and architectural principles. The student's program is intertwined with courses which will apply the skill and knowledge such as electricity/electronics, graphic arts, woods, plastics, welding, construction, metals, power and fluid mechanics, and industrial supervision and management.

Suggested Course Sequence

	Sem. Hrs.
First Semester	15
GCT 103—Technical Drawing I	3
IET 111—Basic Wood Technics	3
ENG 101—Composition I	3
MATH 135—Mathematics for Technical Students	3
MFT 186—Manufacturing and Fabrication	3
Second Semester	17
GCT 203—Technical Drawing II	3
GCT 301—Tool Layout and Design	3
IET 317—Time and Motion Study	2
Math elective	3
ENG 192—Technical Composition	3
MFT 286—Machine Tool Processes	3
Third Semester	17
IET 160—Introduction to Power and Fluid Mechanics	3
GCT 204—Descriptive Geometry	3
CON 202—Structural Design	3
GCT 305—Housing	3
IET 330—Industrial Design	2
General elective	3
Fourth Semester	15
GCT 303—Technical Illustration	3
IET 319—Quality Control	3
GCT 403—Machine Drawing and Design	3
IET 320—Supervisory Practices	3
SPCH 370—Business and Professional Speech	3
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Electrical Technology

The electrical technology program prepares the student in the theoretical and practical applications of power generation and distribution in both industrial and commercial settings. Upon graduation, career opportunities are available with power generating stations, power distribution companies, or municipal utility companies.

Suggested Course Sequence

	Sem. Hrs.
First Semester	15
DATA 201—Introduction to Computers	3
ENG 101—English Composition I	3
GCT 103—Technical Drawing I	3
EET 141—Electrical Circuits	3
MATH 135 or MATH 152	3
Second Semester	18
DATA 202—Computer Programming BASIC	3
ECON 101—Introduction to the American Economy	3
ENG 192—Technical Composition	3
EET 241—Circuit Analysis	3
EET 245—Digital Electronics	3
MATH 141—Plane Trigonometry	3
Third Semester	15
EET 240—Residential Wiring	3
EET 242—Transistors and Semiconductors	3
EET 243—Power Transformers and Distribution	3
EET 345—Microprocessor Electronics	3
EET 442—Industrial Electronics	3
Fourth Semester	17
IET 317—Time and Motion	2
IET 319—Quality Control	3

EET 341—Electrical Drafting and Design	3
EET 343—Motors and Generators	3
EET 443—Industrial Electricity	3
ROB 170—Introduction to Robotics	3
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Electronics Technology

The electronics technology program provides theoretical and technical preparation in the field of electronics, including solid state circuitry and control devices, communications circuits and systems, and computer electronics circuits and systems. Graduates are employed at the technical or supervisory levels with firms involved in the design, manufacture, distribution, or maintenance of electronic equipment.

Suggested Course Sequence

	Sem. Hrs.
First Semester	15
DATA 201—Introduction to Computers	3
ENG 101—Composition I	3
GCT 103—Technical Drawing I	3
EET 141—Electrical Circuits	3
MATH 135 or MATH 152	3
Second Semester	18
DATA 202—Computer Programming BASIC	3
ECON 101—Introduction to the American Economy	3
ENG 192—Technical Composition	3
EET 241—Circuit Analysis	3
EET 245—Digital Electronics	3
MATH 141—Plane Trigonometry	3
Third Semester	15
EET 242—Transistors and Semiconductors	3
EET 240—Residential Wiring	3
EET 344—Communications Circuits	3
EET 345—Microprocessor Electronics	3
EET 442—Industrial Electronics	3
Fourth Semester	17
IET 317—Time and Motion Study	2
IET 319—Quality Control	3
EET 341—Electrical Drafting and Design	3
EET 444—Communications Systems	3
EET 445—Computer Electronics	3
ROB 170—Introduction to Robotics	3
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Graphic Arts Technology

The graphic arts technology program is designed to develop technical knowledge and competency in all major duplicating, printing, and reproduction techniques. Graduates may seek employment in many types of occupations, including job-shop situations and technical level entry into high volume printing concerns.

Suggested Course Sequence

	Sem. Hrs.
First Semester	15
GCT 102—Graphic Arts I	3
GCT 103—Technical Drawing I	3
ENG 101—Composition I	3
MATH 135—Math for Technical Students	3
OADM 111—Beginning Typewriting	3
Second Semester	17
GCT 202—Graphic Arts II	3
IET 317—Time and Motion Study	2
GCT 350—Machine Composition I	3
Elective	3
DATA 201—Introduction to Computers	3
ENG 192—Technical Composition	3
Third Semester	17
GCT 351—Graphic Duplication	3
GCT 322—Photography	2
ART 291—Color and Design	3
Elective	3
JOUR 305—Newspaper Typography and Design	3
IET 320—Supervisory Practices	3
Fourth Semester	16
GCT 302—Offset Lithography	3

GCT 450—Machine Composition II	3
IET 319—Quality Control	3
SPCH 370—Business and Professional Speech	3
Electives	4
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Industrial Supervision and Management Technology

The associate degree program in industrial supervision and management is designed to place graduates in industrial manufacturing positions as supervisory personnel. The curriculum provides a broad understanding of all facets of manufacturing rather than an in-depth specialization of one technical field. This program is also offered to several industries in the region as a complete in-plant degree. Graduates are well prepared in communications and supervisory management skills.

Suggested Course Sequence

	Sem. Hrs.
First Semester	15
IET 100—World of Technology	3
MATH 135—Mathematics for Technical Students	3
GCT 103—Technical Drawing I	3
ENG 101—Composition I	3
ECON 101—Introduction to American Economy	3
Second Semester	15
ENG 192—Technical Composition	3
MFT 186—Manufacturing and Fabrication	3
EET 140—Basic Electricity	3
IET 160—Introduction to Power and Fluids	3
CON 103—Materials Testing	3
Third Semester	17
IET 320—Supervisory Practices	3
IET 319—Quality Control	3
SPCH 370—Business and Professional Speech	3
IET 317—Time and Motion Study	2
MFT 386—NC-CNC Manufacturing Technology	3
DATA 201—Introduction to Computers	3
Fourth Semester	17
IET 422—Industrial Safety Standards and Enforcement	3
MFT 488—Flexible Manufacturing Engineering Technology	3
MNGT 301—Principles of Management	3
IET 327—Applied Industrial Management	3
Technical electives	5
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Machine Tool Technology

The machine tool technology program prepares the individual for entry into the industrial world as a technician or a supervisor. Our classes include metals, manufacturing and fabrication, machine tool processes, and metal casting and welding, plus supportive technical courses in drafting, design, quality control, supervisory practices, and materials testing.

Suggested Course Sequence

	Sem. Hrs.
First Semester	16
ENG 101—Composition I	3
GCT 103—Technical Drawing I	3
MFT 106—Thermoplastic Processing	3
MFT 186—Manufacturing and Fabrication	3
MATH 110—Problem Solving Techniques	1
MATH 135—Mathematics for Technical Students	3
Second Semester	15
CON 103—Materials Testing	3
ECON 101—Introduction to the American Economy	3
ENG 192—Technical Composition	3
IET 160—Power and Fluids	3
MFT 286—Machine Tool Processes	3
Third Semester	18
EET 140—Basic Electricity	3
IET 319—Quality Control	3
IET 320—Supervisory Practices	3
WEL 386—Welding	3
MFT 386—NC-CNC Manufacturing Technology	3
SPCH 370—Business and Professional Speech	3

Fourth Semester	16
GCT 301—Tool Layout and Design	3
MFT 306—Mold Design and Construction	3
IET 330—Industrial Design	2
MFT 486—Patternmaking and Foundry	2
MFT 488—Flexible Manufacturing Engineering Technology	3
IET 170—Introduction to Robotics	3
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Power and Fluids Technology

The power and fluids program is designed to prepare graduates for employment as technicians in the fields of power and power transmission, the automotive industry, and other areas utilizing hydraulic or pneumatic equipment.

Suggested Course Sequence

	Sem. Hrs.
First Semester	15
IET 160—Introduction to Power and Fluids Mechanics	3
IET 260—Hydraulics and Pneumatics	3
ENG 101—Composition I	3
Math elective	3
ECON 101—Introduction to American Economy	3
Second Semester	17
IET 261—Power Mechanics	3
IET 362—Fluid Power	3
GCT 103—Technical Drawing I	3
IET 317—Time and Motion Study	2
Elective	3
ENG 192—Technical Composition	3
Third Semester	16
IET 360—Internal Combustion Engines I	3
IET 365—Instrumentation	3
EET 140—Basic Electricity	3
IET 319—Quality Control	3
IET 320—Supervisory Practices	3
General elective	1
Fourth Semester	16
IET 463—Heating, Ventilating, and Air Conditioning	3
IET 460—Internal Combustion Engines II	3
MFT 186—Manufacturing and Fabrication	3
IET 422—Industrial Safety	3
General elective	4
	64

Vocational Trade and Industrial Education (Preparation Level Pre-Service)

This program is designed for individuals with industrial experience and planning to teach vocational or technical education at the preparation level.

Candidates should consult with an advisor to develop a planned program of study.

In addition to specific course requirements, a work experience component which consists of a minimum of 2,000 clock hours of supervised work experience is required in the teachable occupation.

Suggested Course Sequence

	Sem. Hrs.
First Semester	17
ENG 101—Composition I	3
MATH 135—Mathematics for Technical Students	3
PSY 154—Introduction to Psychology	3
Approved technical electives	8
Second Semester	17
BIO 105—Introduction to Biology	3
EDF 211—Human Growth and Development	3
SPCH 370—Business and Professional Speech	3
Approved technical electives	8
Summer	
Work experience if necessary	
Third Semester	17
IET 393—Methods in Industrial Education	3
IET 390—Principles of Industrial Education	3
IET 392—Technical Curriculum and Media Development	3
IET 364—Career and Vocational Guidance	3
IET—approved technical electives	5

Fourth Semester	13
PE—approved activity class	1
HLTH 150—Personal Health	2
Approved math or science elective	2
IET 497—Seminar in Vocational Education	1
IET 394—Student Teaching in Vocational Education	4
IET—approved technical elective	3
	64

Certificate in Vocational Industrial Education

The Certificate in Vocational Industrial Education is a certificate for teaching vocational education-industrial education. It is valid for teaching only the subjects stated on the face of the certificate and is available as an in-service program. Individuals interested in this certificate should meet with an approved advisor to develop a planned 64-hour semester program. This certificate may be renewed for subsequent five-year periods upon completion of specified requirements.

Welding Technology

The welding technology program includes a study of oxyacetylene welding, arc welding, inert gas welding, welding joint design and testing, welding metallurgy, welding codes, and blueprint reading. Supporting course work is provided in general metals, technical drawing, and basic electricity.

Suggested Course Sequence

	Sem. Hrs.
First Semester	15
WEL 101—Oxyacetylene Welding	3
WEL 101A—Oxyacetylene Welding Laboratory	3
GCT 103—Technical Drawing I	3
MFT 186—Manufacturing and Fabrication	3
MATH 135—Mathematics for Technical Students	3
Second Semester	17
WEL 102—Arc Welding	3
WEL 102A—Arc Welding Laboratory	3
ENG 101—Composition I	3
EET 140—Basic Electricity	3
ECON 101—Introduction to American Economy	3
Approved technical elective	2
Third Semester	17
WEL 201—Inert Gas Welding	3
WEL 201A—Inert Gas Welding Laboratory	3
WEL 205—Welding Metallurgy	3
ENG 192—Technical Composition	3
IET 319—Quality Control	3
IET 317—Time and Motion Study	2
Fourth Semester	15
WEL 202—Weld Joint Design and Testing	3
WEL 307—Automated Welding Technology	3
WEL 204—Welding Codes and Blueprint Reading	3
SPCH 370—Business and Professional Speech	3
IET 320—Supervisory Practices	3
	64

Nursing

The Department of Nursing offers a two-year Associate of Applied Science degree in nursing.

Associate of Applied Science Degree

Degree in Nursing

The Department of Nursing offers a two-year associate degree nursing program and continuing education offerings for registered nurses.

MSU's associate degree Nursing Program is approved by the Kentucky Board of Nursing and accredited by the National League for Nursing. The associate degree Nursing Program is designed to be completed within two consecutive

academic years. General education in the sciences and humanities provides the basis for and is correlated with the nursing component.

In the first semester nursing theory and application of nursing theory in a clinical setting are introduced under the guidance of nursing faculty. The associate nursing degree program prepares the graduates for first level nursing positions in a variety of clinical settings. Graduates of the program earn an associate degree in applied sciences (AAS) and are eligible to write the state licensure examination to become registered nurses.

Admission Requirements and Procedures

Application Procedure

1. Apply to Morehead State University through the university's Division of Admissions.
2. Submit required materials listed below to the Department of Nursing.
 - A. Completed application for Associate Degree Nursing Program.
 - B. Official American College Test Scores (ACT).
 - C. Unofficial copy of high school transcript.
 - D. Unofficial copy of transcripts from all colleges or universities.
3. A. Licensed practical nurse applicants—in addition to the above materials submit challenge exam scores and verification of current license.
B. Nursing transfer applicants—in addition to the above materials, submit official catalog or bulletin and nursing course syllabus of the institution from which you wish to transfer credit.
4. Applicants reapplying to the associate degree Nursing Program must submit new application materials in order to be reconsidered for admission.

In order to be considered for admission to the associate degree Nursing Program, all materials must be submitted to the following address by March 1 if application is for the fall semester and by October 1 if application is for the spring semester:

Department of Nursing
Morehead State University
UPO Box 715
Morehead, Kentucky 40351

The associate degree Nursing Program has a limited enrollment. Applicants to the associate program Nursing Program will be selected upon the following admission criteria:

1. American College Test (ACT)
 - A. Mandatory minimum composite score of 17.
 - B. Preference will be given to ACT minimum subscores in the following order:
Natural science—20
Social Science—17
Math—16; English—18
2. Past performance in high school and/or college or university.
 - A. Must be in upper third of high school graduating class and have at least a B average. Preference will be given to applicants who have taken college preparatory track.
 - B. Must have a grade-point average (g.p.a.) of 2.5 on a scale of 4.0 if previously enrolled in an institution of higher education. A minimum of 9 semester hours of college credit in support courses relating to the associate degree Nursing Program must be earned in order for college g.p.a. to be considered. At least 3 of these 9 hours must be credits earned in a biological or

natural science. Applicants with a GED will be considered on college performance as described. Applicants who have not yet completed 9 hours will be considered on high school credentials and on midterm college grades if currently enrolled in a college or university.

3. An interview by nursing faculty may be required for applicants who meet mandatory criteria but do not meet minimum preferred criteria.

Applicants may contact the Testing and Evaluation Center, Room 501 Ginger Hall at Morehead State University for information about the American College Test. LPN's may contact the Department of Nursing to obtain information regarding challenge exams for maternity and psychiatric nursing; and contact the Testing and Evaluation Center for information on Fundamentals of Nursing Challenge Exam.

Fees and Expenses

There are fees and expenses specific to the associate degree Nursing Program which are in addition to those required by the university. These are subject to change without prior notification. See the Fees section elsewhere in this catalog for general university fees and expenses. The following fees will be collected by the department: Standardized Test Fees—second semester, \$6; third semester, \$3; fourth semester, \$22.

Other expenses students are responsible for: *Required*—uniform; white hose; white clinical shoes; white lab coat; watch with second hand; cap ribbons and pins (third semester); annual lab tests: VDRL, PPD; student liability insurance (annually, \$12.50); Board application fee (fourth semester—\$103.50). *Optional*—school pin; senior pictures; graduation uniform.

Transportation

Associate degree Nursing Program students are responsible for providing transportation to their clinical experience and field trips. Students who drive must show proof of current operator's license and automobile insurance coverage to the Department of Nursing.

Required Course Sequence

	Sem. Hrs.
FIRST SEMESTER	16
NUR 200—Fundamentals of Nursing	7
PSY 154—Introduction to Psychology	3
PSY 156—Life-Span Developmental Psychology	3
BIOL 331—Human Anatomy	3
SECOND SEMESTER	18
NUR 201—Maternity Nursing (9 weeks)	4
NUR 202—Psychiatric Nursing (9 weeks)	4
BIOL 332—Human Physiology	3
CHEM 100, 100A—Basic Chemistry and Laboratory	4
SOC 101—General Sociology	3
THIRD SEMESTER	18
NUR 300—Child-Adult Nursing I	8
ENG 101—English Composition I	3
HEC 301—Elements of Nutrition	3
BIOL 217—Elementary Medical Microbiology	4
OR	
BIOL 317—Principles of Microbiology	4
FOURTH SEMESTER	18
NUR 301—Child-Adult Nursing II	10
NUR 310—Nursing Trends	2
ENG 102—English Composition II	3
General education requirement	3
	70

Mining Technology Program

The mining technology program offers the following degrees:

1. A Bachelor of Science degree with an area of concentration in mining, reclamation, and energy studies, with options in:
 - A. Mining technology
 - B. Reclamation technology
 - C. Energy industry administration
 - D. Energy economics
 - E. Industrial technology
 - F. Safety and health
2. A minor in mining, reclamation, and energy studies
3. A two-year Associate of Applied Science degree in mining technology

Requirements and Suggested Course Sequence

Bachelor of Science Degree

Area of Concentration in Mining and Reclamation Energy Studies

The United States consumes more energy than any other nation. The heat content to produce energy is mainly provided by the natural resources of oil, natural gas, and coal. Unfortunately, the United States now imports more oil than it consumes, resulting in a large balance of payments deficit. The United States can no longer be assured of lasting oil supplies.

This situation has resulted in our policy-makers urging a broad mix in United States energy usage of oil shale, coal, solar, nuclear, synthetic fuels, natural gas, and conservation, as well as domestic oil.

Eastern Kentucky is a region rich in coal, oil shale, natural gas, and oil.

The curriculum of this program consists of courses that give the student a broad overview of mining, coal, reclamation, and alternative energy sources. Graduates of the program may find career positions with government agencies, oil companies, coal companies, or educational institutions. These positions may include areas such as production, safety, training, and administration.

The student must complete a minimum of 48 hours in the core courses and the option. Twenty-four of the hours are included in the option. Optional areas include mining technology, reclamation technology, energy industry administration, energy economics, industrial technology, and safety and health.

	Sem. Hrs.
Required courses in mining and reclamation energy studies	24
MIN 101—Introduction to Mining and Reclamation	3
RCL 301—Reclamation Laws and Regulations	3
MIN 302—Coal Analysis and Preparation	3
MIN 303—Mine Laws and Management	3
MIN 304—Mine Systems Technology	3
MIN 305—Surface Mining	3
MIN 306—Energy Conservation Technology	3
MIN 401—Coal Industry Economics	3

Options

Mining Technology

This option is recommended for a student interested in mine production management. Funding for the mining technology program emanates from the Kentucky Department of Mines and Minerals. The purpose of this funding is to support the associate degree mining technology program,

which exists to supply the state with management potential safety trained individuals who plan to work in or around underground coal mines. The mining technology option to the mining studies degree would allow our associate degree students to apply all of their credits toward the Bachelor of Mining and Reclamation Energy Studies degree.

	Sem. Hrs.
Required courses	24
MIN 103—Mine Drafting	3
MIN 104—Underground Mine Safety	3
MIN 200—Mine Surveying	3
MIN 201—Mine Equipment	3
MIN 202—Mine Design, Ventilation, and Drainage	3
MIN 301—Mine Electrical Systems	3
GEOS 200—Coal Mine Geology	3
AGR 207—Land Conservation and Forest Management	3

Reclamation Technology

This option is recommended for a student desiring a career in reclamation management. Society is becoming more cognizant as to the need for restoration of the land, and the awareness has filtered to the energy sector. Reclamation has become part of the mining cycle, and for this reason, many positions are becoming available in areas such as government and industry. To meet the needs of society at large and government and industry in particular, the reclamation option is offered as part of the mining and reclamation energy studies program.

	Sem. Hrs.
Required courses	26
RCL 302—Reclamation Management and Systems Planning I	4
RCL 303—Reclamation Management and Systems Planning II	4
CON 102—Surveying I	4
AGR 180—Elementary Field Crops	3
AGR 207—Land Conservation and Forest Management	3
AGR 211—Soils	3
AGR 311—Soil Conservation	3
AGR 312—Soil Fertility and Fertilizers	3

Energy Industry Administration

This option is recommended for a person desiring to become proficient in the administration of an energy program in private enterprise, government, or education. The individual will obtain an administrative background in several energy areas, from fossil fuels to conservation.

	Sem. Hrs.
Required courses	24
ACCT 281—Principles of Accounting I	3
ACCT 282—Principles of Accounting II	3
DATA 200—Introduction to Data Processing	3
FIN 252—Mathematics of Finance	3
MNGT 301—Principles of Management	3
FIN 360—Business Finance	3
MNGT 461—Business Law I	3
MKT 304—Marketing	3

In addition, students completing this option are required to include ECON 201 and 202 as part of their general education courses.

Energy Economics

This option is devised for students desiring to gain an insight to the economic nature of the global energy situation. This educational background could enable the student to go into almost any phase of the energy complex, including graduate studies or the governmental service.

	Sem. Hrs.
Required courses	24
ECON 201—Principles of Economics I	3
ECON 202—Principles of Economics II	3
FIN 342—Money and Banking	3

ECON 350—Microeconomic Theory	3
ECON 351—Macroeconomic Theory	3
ECON 302—Labor Economics	3
Economics electives	6

Industrial Technology

This option will allow students to specialize in a particular vocation, such as electricity or welding. These type positions are in demand, especially in the coal industry.

	Sem. Hrs.
Required courses	24
GCT 103—Technical Drawing I	3
IET 317—Time and Motion Studies	2
IET 319—Quality Control	3
IET 320—Supervisory Practices	3
IET 571—Seminar in Industrial Education	1
IET electives (approved by advisor)	12

The 12 hours of electives may be selected from one of the following program areas: construction technology, drafting and design technology, electrical technology, machine tool technology, power and fluids technology, and welding technology.

Safety and Health

This option will provide the student with expertise in classes dealing with safety and health. This is becoming a very important area, as the Mine Safety and Health Administration (MSHA) and the Occupational Safety and Health Administration (OSHA) exercise increasing jurisdiction in the safety and health areas.

	Sem. Hrs.
Required courses	24
MIN 104—Underground Mine Safety	3
HLTH 203—Safety and First Aid	3
HLTH 519—Emergency Medical Techniques	6
IET 422—Industrial Safety Standards and Enforcement	3
General electives (approved by advisor)	9

Minor in Mining and Reclamation Energy Studies

	Sem. Hrs.
MIN 101—Introduction to Mining and Reclamation	21
RCL 301—Reclamation Laws and Regulations	3
MIN 303—Mine Laws and Management	3
MIN 304—Mine Systems Technology	3
MIN 305—Surface Mining	3
MIN 306—Energy Conservation Technology	3
MIN 401—Coal Industry Economics	3

Associate of Applied Science Degree

Mining Technology

Kentucky is the leading coal-producing state in the nation. Coal production is expected to increase for the next several decades. Because of this increased demand for coal, many positions will become available with coal and mining companies and also with several government agencies. The two-year associate of applied science degree in mining technology is designed to educate and train students to eventually become managerial personnel in the coal and mining industry. The student will learn from areas such as safety, surveying, mine drafting, reclamation, roof control, ventilation, electricity, mine machinery, labor relations, mine systems management, mine laws, and the handling of explosives. The program covers both underground and surface mining. Students are strongly encouraged to obtain working experience the summer after their freshman year. The student will receive his or her miner certification card after graduation.

Suggested Course Sequence

	Sem. Hrs.
First Semester	16
MIN 101—Introduction to Mining and Reclamation	3
GCT 103—Technical Drawing I	3
ENG 101—Composition I	3
MATH 135—Mathematics for Technical Students	3
MATH 110—Problem Solving Techniques	1
HLTH 203—Safety and First Aid	3
Second Semester	16
MIN 103—Mine Drafting	3
MIN 104—Underground Mine Safety	3
CON 102—Surveying I	3
ENG 192—Technical Composition	3

EET 140—Basic Electricity	3
GEOS 100—Physical Geology	1
Third Semester	18
MIN 200—Mine Surveying	3
MIN 201—Mine Equipment	3
MIN 202—Mine Design, Ventilation, and Drainage	3
MIN 301—Mine Electrical Systems	3
GEOS 200—Coal Mine Geology	3
Approved elective	3
Fourth Semester	15
MIN 302—Coal Analysis and Preparation	3
MIN 303—Mine Laws and Management	3
MIN 304—Mine Systems Technology	3
AGR 207—Land Conservation and Forest Management	3
IET 320—Supervisory Practices	3
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Departments

Accounting and Economics
Information Sciences
Management and Marketing

The programs of the School of Business and Economics are designed to prepare students for employment in business and government, for teaching in secondary schools, or for additional study in business or economics at the graduate level.

Certificate programs

Information Sciences
Certificate—Clerical Studies
Certificate—Secretarial Studies

Associate degree programs

Information Sciences
AAB—Data Processing
AAB—Office Management
AAB—Secretarial Studies
Management and Marketing
AAB—Real Estate
AAB—Small Business Management

Bachelor degree programs

Accounting and Economics
BBA—Accounting—Option
BBA—Economics—Option
BBA—Finance—Option
BS—Accounting—Minor
BS—Economics—Minor
Information Sciences
BBA—Basic Business—Option
BBA—Data Processing—Option
BBA—Secretarial Studies—Option
BS—Basic Business—Minor
BS—Data Processing—Minor
BS—Secretarial Studies—Minor
Management and Marketing
BBA—Management—Option
BBA—Marketing—Option
BBA—Production Management—Option
BBA—Real Estate—Option
BS—Business Administration—Minor
BS—Marketing—Minor
BS—Real Estate—Minor

General Education Requirements

The Associate of Applied Business (AAB) does not contain the same general education requirements throughout all degree programs within the School of Business and Economics. Generally, two courses in English and one course in mathematics will be incorporated in each degree program for general education purposes.

Each of the Bachelor of Business Administration (BBA) degree programs in the School of Business and Economics contains a common general education requirement. The total hours required in each academic area is based on the University general education requirements. The designated courses within an area are School of Business and Economics re-

quirements. For bachelor degrees in the School of Business and Economics, the general education requirements are:

	Sem. Hrs.
HUMANITIES	
SPCH 370—Business and Professional Speech	3
Humanities electives	12
	15
SCIENCE AND MATHEMATICS	
MATH 160—Mathematics for Business and Economics	4
MATH 354—Business Statistics	3
Science and mathematics electives	6
	13
SOCIAL SCIENCE	
ECON 201—Principles of Economics I	3
ECON 202—Principles of Economics II	3
Social science electives	6
	12
HEALTH AND PHYSICAL EDUCATION	
Health and physical education electives	3
	3

Accounting and Economics

The Department of Accounting and Economics offers the following:

- Four-year programs leading to a Bachelor of Business Administration degree (BBA) with a concentration in Business Administration and an OPTION in
 - Accounting
 - Economics
 - Finance
- Four-year program leading to a Bachelor of Science degree (BS) with a MINOR in
 - Accounting
 - Economics

Bachelor of Business Administration Core

The Bachelor of Business Administration includes a core of courses which are designed to provide the student in business and economics with a base from which to pursue course work in his or her special area of interest.

	Sem. Hrs.
BUSINESS ADMINISTRATION CORE	
ACCT 281—Principles of Accounting I	3
ACCT 282—Principles of Accounting II	3
DATA 201—Introduction to Computers	3
ECON 350—Microeconomic Theory	3
FIN 360—Business Finance	3
MKT 304—Marketing	3
MNGT 261—The Legal Environment of Business Organizations	3
MNGT 301—Principles of Management	3
MNGT 306—Production Management	3
MNGT 472—Business Policies and Problems	3
OADM 321—Business Communications	3
	33

BBA—Accounting—Option

Students selecting the BBA degree with an accounting option will achieve a specialization in accounting totaling 27

semester hours. This degree permits a broad supporting business curriculum in management, marketing, finance, and economics.

Course Requirements

	Sem. Hrs.
BBA Core	33
ACCT 384—Intermediate Accounting I	3
ACCT 385—Intermediate Accounting II	3
ACCT 387—Income Tax	3
ACCT 390—Cost Accounting I	3
ACCT 483—Auditing	3
Approved accounting electives	6
	54

Suggested Course Sequence

FRESHMAN YEAR

First Semester	
ACCT 281—Principles of Accounting I	3
DATA 201—Introduction to Computers	3
ENG 101—Composition I	3
MATH 160—Mathematics for Business and Economics	4
SCI 103—Introduction to Physical Science	3
	16
Second Semester	
ACCT 282—Principles of Accounting II	3
BIOL 105—Introduction to Biological Science	3
ENG 102—Composition I	
OR	
ENG 192—Technical Writing	3
MNGT 261—The Legal Environment of Business Organizations	3
PHED—activity	1
SOC or PSY—elective	3
	16

SOPHOMORE YEAR

First Semester	
ACCT 384—Intermediate Accounting I	3
ECON 201—Principles of Economics I	3
HLTH 150—Personal Health	2
HUM—humanities elective	3
MNGT 301—Principles of Management	3
OADM 321—Business Communications	3
	17
Second Semester	
ACCT 385—Intermediate Accounting II	3
ECON 202—Principles of Economics II	3
ENG—literature elective	3
GOVT or GEOG—elective	3
MATH 354—Business Statistics	3
	15

JUNIOR YEAR

First Semester	
ACCT 387—Income Tax	3
ACCT 390—Cost Accounting I	3
ECON 350—Microeconomic Theory	3
FIN 360—Business Finance	3
SPCH 370—Business and Professional Speech	3
	15
Second Semester	
Accounting elective	3
MKT 304—Marketing	3
MNGT 306—Production Management	3
Electives	8
	17

SENIOR YEAR

First Semester	
ACCT 483—Auditing	3
Electives	14
	17
Second Semester	
Accounting elective	3
MNGT 472—Business Policies and Problems	3
Electives	9
	15

Students planning to sit for a professional examination such as the Certified Public Accounting Exam (CPA); the Certified Management Accounting Exam (CMA); or the Certified Internal Auditor Exam (CIA), should select electives that will assist them in preparation for such exercises. For example, CPA candidates should probably take Tax II; Cost II; Theory; and additional data processing courses. Accounting advisors will assist students in these selections.

BS—Accounting—Minor

Students selecting programs with accounting minors should first consult with advisors in their major areas. Department of Accounting and Economics advisors are available for assistance.

Course Requirements

	Sem. Hrs.
ACCT 281—Principles of Accounting I	3
ACCT 282—Principles of Accounting II	3
ACCT 384—Intermediate Accounting I	3
ACCT 385—Intermediate Accounting II	3
ACCT 390—Cost Accounting I	3
Approved accounting electives	6
	21

BBA—Economics—Option

This economics option is designed to prepare students for entrance into the fields of business economics and business management. The program is recommended for students who desire analytical tools required for production and market analysis. In addition, the curriculum is structured to provide a basis from which a student may pursue graduate study in either business administration or economics.

Course Requirements

	Sem. Hrs.
BBA Core	33
ECON 302—Labor Economics	3
ECON 541—Public Finance	3
ECON 547—International Economics	3
ECON 551—Macroeconomic Theory	3
FIN 342—Money and Banking	3
*Approved electives	6
	54

Suggested Course Sequence

FRESHMAN YEAR

First Semester		Sem. Hrs.
ECON 201—Principles of Economics I		3
ENG 101—Composition I		3
HLTH 150—Personal Health		2
MATH 160—Mathematics for Business and Economics		4
PHED—activity		1
SCI 103—Introduction to Physical Science		3
		16

Second Semester		Sem. Hrs.
BIOL 105—Introduction to Biological Science		3
DATA 201—Introduction to Computers		3
ECON 202—Principles of Economics II		3
ENG 102—Composition II		3
SOC or PSY—elective		3
		15

SOPHOMORE YEAR

First Semester		Sem. Hrs.
ACCT 281—Principles of Accounting I		3
ECON 302—Labor Economics		3
GOVT or GEOG—elective		3
HUM—humanities elective		3
MNGT 261—The Legal Environment of Business Organizations		3
Electives		2
		17

Second Semester		Sem. Hrs.
ACCT 282—Principles of Accounting II		3
ECON 350—Microeconomic Theory		3
ENG 202—Introduction to Literature		3
MATH 354—Business Statistics		3
OADM 321—Business Communications		3
Elective		1
		16

JUNIOR YEAR

First Semester		Sem. Hrs.
ECON 551—Macroeconomic Theory		3
FIN 342—Money and Banking		3
MKT 304—Marketing		3
MNGT 301—Principles of Management		3
Electives		6
		18

*To be selected with the consent of faculty advisor.

Second Semester	
ECON 547—International Economics	3
FIN 360—Business Finance	3
MNGT 306—Production Management	3
MNGT 472—Business Policies and Problems	3
SPCH 370—Business and Professional Speech	3
	15

SENIOR YEAR

First Semester	
ECON 541—Public Finance	3
*Economics elective	3
Electives	9
	15

Second Semester	
*Economics elective	3
Electives	13
	16

*To be selected with consent of faculty advisor.

BBA—Finance—Option

This program of studies is recommended for students who wish a background in financial management. Excellent career opportunities are available in consumer finance, banking, insurance, and in financial administration at the corporate level.

Course Requirements

	Sem. Hrs.
BBA Core	33
ACCT 384—Intermediate Accounting I	3
ACCT 387—Income Tax	3
FIN 342—Money and Banking	3
FIN 343—Investments	3
FIN 560—Financial Markets	3
*Approved electives	6
	54

Suggested Course Sequence

FRESHMAN YEAR

First Semester		Sem. Hrs.
ENG 101—Composition I	3	3
HLTH 150—Personal Health	2	2
MATH 160—Mathematics for Business and Economics	4	4
PHED—activity	1	1
SCI 103—Introduction to Biological Science	3	3
SOC or PSY—elective	3	3
		16

Second Semester		Sem. Hrs.
BIOL 105—Introduction to Biological Science	3	3
DATA 201—Introduction to Computers	3	3
ENG 102—Composition II	3	3
GOVT or GEOG—elective	3	3
Elective	3	3
		15

SOPHOMORE YEAR

First Semester		Sem. Hrs.
ACCT 281—Principles of Accounting I	3	3
ECON 201—Principles of Economics I	3	3
ENG 202—Introduction to Literature	3	3
HUM—humanities elective	3	3
MNGT 261—The Legal Environment of Business Organizations	3	3
OADM 321—Business Communications	3	3
		18

Second Semester		Sem. Hrs.
ACCT 282—Principles of Accounting II	3	3
ECON 202—Principles of Economics II	3	3
MKT 304—Marketing	3	3
Electives	6	6
		15

JUNIOR YEAR

First Semester		Sem. Hrs.
ACCT 384—Intermediate Accounting I	3	3
ECON 350—Microeconomic Theory	3	3
MATH 354—Business Statistics	3	3
MNGT 301—Principles of Management	3	3
Elective	5	5
		17

Second Semester		Sem. Hrs.
ACCT 387—Income Tax	3	3
FIN 360—Business Finance	3	3
MNGT 306—Production Management	3	3
SPCH 370—Business and Professional Speech	3	3
Electives	5	5
		17

SENIOR YEAR

First Semester		Sem. Hrs.
FIN 342—Money and Banking	3	3
FIN 343—Investments	3	3
*Finance electives	3	3
Electives	6	6
		15

Second Semester		Sem. Hrs.
FIN 560—Financial Markets	3	3
MNGT 472—Business Policies and Problems	3	3
*Finance elective	3	3
Electives	6	6
		15

*To be selected with consent of faculty advisor.

BS—Economics—Minor

Students selecting programs with economics minors should first consult with advisors in their major areas. Department of Accounting and Economics advisors are available for assistance.

Course Requirements

	Sem. Hrs.
ECON 201—Principles of Economics I	3
ECON 202—Principles of Economics II	3
ECON 350—Microeconomic Theory	3
ECON 551—Macroeconomic Theory	3
FIN 342—Money and Banking	3
*Economics electives	6
	21

*To be selected with consent of faculty advisor.

Information Sciences

The Department of Information Sciences offers the following:

- One-year Certificate Programs
 - Clerical Studies
 - Secretarial Studies
- Two-year programs leading to an Associate of Applied Business Degree (AAB) in
 - Data Processing
 - Office Management
 - Secretarial Studies with options in
 - Executive
 - Legal
 - Medical
- Four-year programs leading to a BBA degree with an option in
 - Basic Business
 - Data Processing
 - Secretarial Studies
- Four-year program MINOR
 - Basic Business
 - Data Processing
 - Secretarial Studies

One-Year Certificate Programs

These curricula are designed for those students who have immediate occupational objectives and who do not plan initially to pursue a degree program. After successful comple-

tion of 32 semester hours of directed course work, students are awarded certificates of completion in either clerical or secretarial studies. Sufficient preparation is provided for jobs as typists, receptionists, stenographers. Courses completed in the one-year program may be applied toward degree programs, provided the regular University general education requirements are met.

Certificate—Clerical Studies

Clerical studies is especially designed for students who are not interested in the development of shorthand skills but who want to master the related office skills and knowledge.

Course Requirements

	Sem. Hrs.
DATA 201—Introduction to Computers	3
ENG 101—Composition I	3
MNGT 160—Introduction to Business	3
OADM—Typewriting	6
OADM 136—Business Calculations	3
OADM 190—Office Accounting	3
OADM 210—Word Processing I	3
OADM 321—Business Communications	3
OADM 340—Simulated Office Education	3
OR	
OADM 363—Office Management	3
Approved electives	2
	32

Suggested Course Sequence

First Semester	
DATA 201—Introduction to Computers	3
ENG 101—Composition I	3
OADM—Typewriting	3
OADM 136—Business Calculations	3
OADM 190—Office Accounting	3
Approved elective	1
	16

Second Semester	
MNGT 160—Introduction to Business	3
OADM—Typewriting	3
OADM 210—Word Processing I	3
OADM 321—Business Communications	3
OADM 340—Simulated Office Education	3
OR	
OADM 363—Office Management	3
Approved elective	1
	16

Certificate—Secretarial Studies

This program is designed primarily for students who desire to develop proficiency in the art of shorthand writing and transcription and related secretarial skills.

Course Requirements

	Sem. Hrs.
DATA 201—Introduction to Computers	3
ENG 101—Composition I	3
OADM—Typewriting	6
OADM 136—Business Calculations	3
OADM 190—Office Accounting	3
OADM 210—Word Processing I	3
OADM—Shorthand	6
OADM 321—Business Communications	3
OADM 340—Simulated Office Education	3
OR	
OADM 363—Office Management	3
	33

Suggested Course Sequence

	Sem. Hrs.
First Semester	
DATA 201—Introduction to Computers	3
ENG 101—Composition I	3

OADM—Typewriting	3
OADM 136—Business Calculations	3
OADM—Shorthand	3
	15

Second Semester	
OADM—Typewriting	3
OADM—Shorthand	3
OADM 190—Office Accounting	3
OADM 210—Word Processing I	3
OADM 321—Business Communications	3
OADM 340—Simulated Office Education	3
OR	
OADM 363—Office Management	3
	18

AAB—Data Processing

The two-year program in data processing technology is recommended for students interested in acquiring skills in electronic computer operations, business applications of computers, and programming. The program is designed to meet specific needs of business, industry, and professional organizations for trained programming personnel.

Course Requirements

	Sem. Hrs.
ACCT 281—Principles of Accounting I	3
ACCT 282—Principles of Accounting II	3
DATA 201—Introduction to Computers	3
DATA 202—Computer Programming BASIC	3
DATA 210—Computer Programming ASSEMBLER I	3
DATA 215—Computer Programming COBOL I	3
DATA 260—FORTRAN Programming I	3
DATA 315—Computer Programming COBOL II	3
DATA 320—Computerized Business Systems	3
DATA 405—Systems Analysis and Design	3
ECON 201—Principles of Economics I	3
ENG 101—Composition I	3
ENG 102—Composition II	3
FIN 252—Mathematics of Finance	3
MATH 160—Mathematics for Business and Economics	4
MNGT 160—Introduction to Business	3
OADM 321—Business Communications	3
SPCH 370—Business and Professional Speech	3
Approved electives	9
	64

Suggested Course Sequence

	Sem. Hrs.
First Semester	
DATA 201—Introduction to Computers	3
DATA 202—Computer Programming BASIC	3
ENG 101—Composition I	3
MATH 160—Mathematics for Business and Economics	4
MNGT 160—Introduction to Business	3
	16

Second Semester	
ACCT 281—Principles of Accounting I	3
DATA 210—Computer Programming ASSEMBLER I	3
DATA 260—FORTRAN Programming I	3
ENG 102—Composition II	3
SPCH 370—Business and Professional Speech	3
	15

Third Semester	
ACCT 282—Principles of Accounting II	3
DATA 215—Computer Programming COBOL I	3
DATA 320—Computerized Business Systems	3
ECON 201—Principles of Economics I	3
OADM 321—Business Communications	3
Approved elective	3
	18

Fourth Semester	
DATA 315—Computer Programming COBOL II	3
DATA 405—Systems Analysis and Design	3
FIN 252—Mathematics of Finance	3
Approved electives	6
	15

AAB—Office Management

This program is designed to prepare graduates for positions as administrative assistants.

Course Requirements

	Sem. Hrs.
ACCT 281—Principles of Accounting I	3
DATA 201—Introduction to Computers	3
ECON 201—Principles of Economics I	3
ENG 101—Composition I	3
ENG 102—Composition II	3
MNGT 160—Introduction to Business	3
MNGT 301—Principles of Management	3
OADM—Typewriting	6
OADM 136—Business Calculations	3
OADM 190—Office Accounting	3
OADM 210—Word Processing I	3
OADM 220—Word Processing II	3
OADM 321—Business Communications	3
OADM 340—Simulated Office Education	3
OADM 363—Office Management	3
SPCH 370—Business and Professional Speech	3
Approved electives	13
	64

Suggested Course Sequence

	Sem. Hrs.
First Semester	
DATA 201—Introduction to Computers	3
ENG 101—Composition I	3
MNGT 160—Introduction to Business	3
OADM—Typewriting	3
OADM 136—Business Calculations	3
Elective	1
	16
Second Semester	
ECON 201—Principles of Economics I	3
ENG 102—Composition II	3
OADM—Typewriting	3
OADM 190—Office Accounting	3
Electives	4
	16
Third Semester	
ACCT 281—Principles of Accounting I	3
MNGT 301—Principles of Management	3
OADM 210—Word Processing I	3
OADM 321—Business Communications	3
Electives	4
	16
Fourth Semester	
ECON 201—Principles of Economics I	3
OADM 340—Simulated Office Education	3
OADM 363—Office Management	3
SPCH 370—Business and Professional Speech	3
Electives	4
	16

AAB—Secretarial Studies

This program is designed to prepare graduates for positions as stenographers or secretaries in business, industry, government, legal, or medical fields.

Course Requirements

	Sem. Hrs.
DATA 201—Introduction to Computers	3
ENG 101—Composition I	3
ENG 102—Composition II	3
OADM 112—Intermediate Typewriting	3
OADM 131—Shorthand I	3
OADM 136—Business Calculations	3
OADM 190—Office Accounting	3
OADM 210—Word Processing I	3
OADM 213—Advanced Typewriting	3
OADM 220—Word Processing II	3
OADM 321—Business Communications	3
OADM 340—Simulated Office Education	3
OADM 363—Office Management	3
PDI 100—Personal Development	1
SPCH 370—Business and Professional Speech	3
*Approved electives	21
	64

*Electives may be applied for emphasis in specific areas as follows:

(1) Executive Secretary (21)

DATA 202—Computer Programming BASIC	3
ECON 201—Principles of Economics I	3
OADM 232—Shorthand II	3

(2) Legal Secretary (21)

GOVT 141—American Government	3
GOVT 380—American Courts and Civil Rights	3
MNGT 261—The Legal Environment of Business Organizations	3
OADM 234—Specialized Office Procedures	3
OADM 398—Supervised Field Experience	3

(3) Medical Secretary (21)

AHS 302—Medical Terminology	2
OADM 234—Specialized Office Procedures	3
OADM 398—Supervised Field Experience	3
PSY 154—Introduction to Psychology	3

Suggested Course Sequence Executive Secretary Emphasis

	Sem. Hrs.
First Semester	
ENG 101—Composition I	3
OADM 112—Intermediate Typewriting	3
OADM—Shorthand	3
OADM 136—Business Calculations	3
Electives	4
	16
Second Semester	
ENG 102—Composition II	3
OADM 190—Office Accounting	3
OADM 213—Advanced Typewriting	3
OADM—Shorthand	3
Electives	4
	16
Third Semester	
DATA 201—Introduction to Computers	3
OADM 210—Word Processing I	3
OADM 321—Business Communications	3
SPCH 370—Business and Professional Speech	3
Electives	4
	16
Fourth Semester	
DATA 202—Computer Programming BASIC	3
ECON 201—Principles of Economics I	3
OADM 220—Word Processing II	3
OADM 340—Simulated Office Education	3
OADM 363—Office Management	3
PDI 100—Personal Development	1
	16

Legal Secretary Emphasis

	Sem. Hrs.
First Semester	
ENG 101—Composition I	3
GOVT 141—American Government	3
OADM 112—Intermediate Typewriting	3
OADM 131—Shorthand I	3
OADM 136—Business Calculations	3
Elective	1
	16
Second Semester	
DATA 201—Introduction to Computers	3
ENG 102—Composition II	3
OADM 190—Office Accounting	3
OADM 213—Advanced Typewriting	3
OADM 234—Specialized Office Procedures	3
Elective	1
	16
Third Semester	
GOVT 380—American Courts and Civil Rights	3
MNGT 261—The Legal Environment of Business Organizations	3
OADM 210—Word Processing I	3
OADM 321—Business Communications	3
OADM 340—Simulated Office Education	3
PDI 100—Personal Development	1
	16

Fourth Semester

OADM 220—Word Processing II	3
OADM 363—Office Management	3
OADM 398—Supervised Field Experience	1
SPCH 370—Business and Professional Speech	3
Electives	6
	16

Medical Secretary Emphasis

First Semester

AHS 302—Medical Terminology	2
ENG 101—Composition I	3
OADM 112—Intermediate Typewriting	3
OADM 131—Shorthand I	3
OADM 136—Business Calculations	3
Electives	2
	16

Second Semester

ENG 102—Composition II	3
OADM 190—Office Accounting	3
OADM 213—Advanced Typewriting	3
OADM 234—Specialized Office Procedures	3
PDI 100—Personal Development	1
PSY 154—Introduction to Psychology	3
	16

Third Semester

DATA 201—Introduction to Computers	3
OADM 210—Word Processing I	3
OADM 321—Business Communications	3
SPCH 370—Business and Professional Speech	3
Electives	4
	16

Fourth Semester

OADM 220—Word Processing II	3
OADM 340—Simulated Office Education	3
OADM 363—Office Management	3
OADM 398—Supervised Field Experience	1
Electives	6
	16

Bachelor of Business Administration Core

The Bachelor of Business Administration includes a core of courses which are designed to provide the student in business and economics with a base from which to pursue course work in his or her special area of interest.

Business Administration Core

	Sem. Hrs.
ACCT 281—Principles of Accounting I	3
ACCT 282—Principles of Accounting II	3
DATA 201—Introduction to Computers	3
ECON 350—Microeconomic Theory	3
FIN 360—Business Finance	3
MKT 304—Marketing	3
MNGT 261—The Legal Environment of Business Organizations	3
MNGT 301—Principles of Management	3
MNGT 306—Production Management	3
MNGT 472—Business Policies and Problems	3
OADM 321—Business Communications	3
	33

BBA—Data Processing—Option

This option is designed to prepare students for positions of responsibility in the rapidly developing fields of computers, data processing, information technology, and systems design.

Course Requirements

	Sem. Hrs.
BBA Core	33
DATA 202—Computer Programming BASIC	3
DATA 210—Computer Programming ASSEMBLER I	3
DATA 215—Computer Programming COBOL I	3
DATA 260—FORTRAN Programming I	3
DATA 315—Computer Programming COBOL II	3
DATA 320—Computerized Business Systems	3
DATA 405—Systems Analysis and Design	3
	54

Suggested Course Sequence

FRESHMAN YEAR

	First Semester	Sem. Hrs.
DATA 201—Introduction to Computers	3	3
ENG 101—Composition I	3	3
MATH 160—Mathematics for Business and Economics	4	4
SCI 103—Introduction to Physical Science	3	3
GOVT or GEOG—elective	3	3
		16

Second Semester

BIOL 105—Introduction to Biological Science	3
DATA 202—Computer Programming BASIC	3
ENG 102—Composition II	3
HUM—humanities elective	3
PSY 154—Introduction to Psychology	3
OR	
SOC elective	
PHED—activity elective	1
	16

SOPHOMORE YEAR

First Semester

ACCT 281—Principles of Accounting I	3
DATA 210—Computer Programming ASSEMBLER I	3
ECON 201—Principles of Economics I	3
HLTH 150—Personal Health	2
ENG—literature elective	3
MNGT 261—The Legal Environment of Business Organizations	3
	17

Second Semester

ACCT 282—Principles of Accounting II	3
DATA 260—FORTRAN Programming I	3
ECON 202—Principles of Economics II	3
OADM 321—Business Communications	3
SPCH 370—Business and Professional Speech	3
	15

JUNIOR YEAR

First Semester

DATA 215—Computer Programming COBOL I	3
DATA 320—Computerized Business Systems	3
FIN 360—Business Finance	3
MNGT 301—Principles of Management	3
Electives	4
	16

Second Semester

DATA 315—Computer Programming COBOL II	3
MATH 354—Business Statistics	3
MKT 304—Marketing	3
Electives	7
	16

SENIOR YEAR

First Semester

ECON 350—Microeconomic Theory	3
MNGT 306—Production Management	3
Electives	10
	16

Second Semester

DATA 405—Systems Analysis and Design	3
MNGT 472—Business Policies and Problems	3
Electives	10
	16

Core for Teacher Education Programs

	Sem. Hrs.
ACCT 281—Principles of Accounting I	3
ACCT 282—Principles of Accounting II	3
DATA 201—Introduction to Computers	3
FIN 360—Business Finance	3
MKT 304—Marketing	3
MNGT 261—The Legal Environment of Business Organizations	3
MNGT 301—Principles of Management	3
OADM 136—Business Calculations	3
OADM 321—Business Communications	3
	27

BBA—Basic Business—Option

Students wishing to teach in the non-secretarial programs in business on the secondary level should select the basic business option. This curriculum will satisfy certification requirements for teaching accounting and basic business courses. In addition, an endorsement for teaching advanced

data processing may be added to a high school certificate upon completion of a total of 9 semester hours credit in data processing.

Course Requirements

	Sem. Hrs.
BBA—Teacher education core	27
ACCT—elective	3
FIN 264—Personal Finance	3
OADM 112—Intermediate Typewriting	3
OADM 190—Office Accounting	3
OADM 210—Word Processing I	3
OADM 220—Word Processing II	3
OADM 340—Simulated Office Education	3
OADM 363—Office Management	3
OADM 475—Methods of Teaching Business Subjects	5
	56

Suggested Course Sequence

FRESHMAN YEAR

First Semester	Sem. Hrs.
BIOL 105—Introduction to Biological Science	3
DATA 201—Introduction to Computers	3
ENG 101—Composition I	3
OADM 112—Intermediate Typewriting	3
OADM 136—Business Calculations	3
PHED—activity elective	1
	16

Second Semester

ENG 102—Composition II	3
HLTH 150—Personal Health	2
GOVT or GEOG—elective	3
MATH 160—Mathematics for Business and Economics	4
OADM 190—Office Accounting	3
SCI 103—Introduction to Physical Science	3
	18

SOPHOMORE YEAR

First Semester	Sem. Hrs.
ACCT 281—Principles of Accounting I	3
EDF 207—Foundations of Secondary Education	3
FIN 264—Personal Finance	3
MNGT 261—The Legal Environment of Business Organizations	3
OADM 210—Word Processing I	3
	15

Second Semester

ACCT 282—Principles of Accounting II	3
ECON 201—Principles of Economics I	3
EDF 211—Human Growth and Development	3
MNGT 301—Principles of Management	3
OADM 220—Word Processing II	3
PSY 154—Introduction to Psychology	3
	18

JUNIOR YEAR

First Semester	Sem. Hrs.
EDF 311—Learning Theories in the Classroom	3
MATH 354—Business Statistics	3
MKT 304—Marketing	3
OADM 321—Business Communications	3
OADM 363—Office Management	3
SPCH 370—Business and Professional Speech	3
	18

Second Semester

ACCT—elective	3
ECON 202—Principles of Economics II	3
EDSP 312—Teaching Skills and Media	3
FIN 360—Business Finance	3
OADM 340—Simulated Office Education	3
	15

SENIOR YEAR

First Semester	Sem. Hrs.
ENG—literature elective	3
EDSP 332—Teaching the Exceptional Child	2
HUM—humanities elective	3
OADM 475—Methods of Teaching Business Subjects	5
	13
Second Semester	Sem. Hrs.
EDSE 415 and 416—Professional Semester	15

BBA—Secretarial Studies—Option

Students wishing to teach in the secretarial programs or clerical programs on the secondary level should select the secretarial studies option. This curriculum will satisfy certification requirements for teaching typewriting, shorthand, and related secretarial and clerical courses.

Course Requirements

	Sem. Hrs.
BBA—Teacher education core	27
OADM 112—Intermediate Typewriting	3
OADM 210—Word Processing I	3
OADM 213—Advanced Typewriting	3
OADM 220—Word Processing II	3
OADM 232—Shorthand II	3
OADM 331—Shorthand III	3
OADM 340—Simulated Office Education	3
OADM 363—Office Management	3
OADM 475—Methods of Teaching Business Subjects	4
	55

Suggested Course Sequence

FRESHMAN YEAR

First Semester	Sem. Hrs.
BIOL 105—Introduction to Biological Science	3
ENG 101—Composition I	3
OADM 112—Intermediate Typewriting	3
OADM 136—Business Calculations	3
OADM 232—Shorthand II	3
PHED—activity elective	1
	16

Second Semester

ACCT 281—Principles of Accounting I	3
MATH 160—Mathematics for Business and Economics	4
OADM 213—Advanced Typewriting	3
OADM 321—Business Communications	3
OADM 331—Shorthand III	3
	16

SOPHOMORE YEAR

First Semester	Sem. Hrs.
ACCT 282—Principles of Accounting II	3
DATA 201—Introduction to Computers	3
EDF 207—Foundations of Secondary Education	3
ENG 102—Composition II	3
OADM 210—Word Processing I	3
PSY 154—Introduction to Psychology	3
	18

Second Semester

EDF 211—Human Growth and Development	3
ECON 201—Principles of Economics I	3
HLTH 150—Personal Health	2
MATH 354—Business Statistics	3
MNGT 301—Principles of Management	3
OADM 220—Word Processing II	3
	17

JUNIOR YEAR

First Semester	Sem. Hrs.
EDF 311—Learning Theories in the Classroom	3
EDSP 332—Teaching the Exceptional Child	2
MKT 304—Marketing	3
MNGT 261—The Legal Environment of Business Organizations	3
OADM 340—Simulated Office Education	3
SCI 103—Introduction to Physical Science	3
	17

Second Semester

ECON 202—Principles of Economics II	3
EDSE 312—Teaching Skills and Media	3
FIN 360—Business Finance	3
HUM—humanities elective	3
OADM 363—Office Management	3
	15

SENIOR YEAR

First Semester	Sem. Hrs.
ENG—literature elective	3
GOVT or GEOG—elective	3
OADM 475—Methods of Teaching Business Subjects	4
SPCH 370—Business and Professional Speech	3
Elective	1
	14
Second Semester	Sem. Hrs.
EDSE 415 and 416—Professional Semester	15

BS—Data Processing—Minor

Students selecting a data processing minor should first consult with advisors in their major areas. Departmental advisors in data processing are also available for assistance.

Course Requirements

	Sem. Hrs.
DATA 201—Introduction to Computers	3
DATA 202—Computer Programming BASIC	3
OR	
DATA 260—FORTRAN Programming I	3
DATA 210—Computer Programming ASSEMBLER I	3
DATA 215—Computer Programming COBOL I	3
DATA 315—Computer Programming COBOL II	3
DATA 320—Computerized Business Systems	3
DATA 405—Systems Analysis and Design	3
DATA elective	3
	24

BS—Basic Business—Minor

A minor is offered in basic business for those students who are majoring in another discipline and who do not desire teacher certification in business education.

Course Requirements

	Sem. Hrs.
DATA 201—Introduction to Computers	3
OADM—Typewriting	3
OADM 136—Business Calculations	3
OADM 190—Office Accounting	3
OADM 321—Business Communications	3
OADM 363—Office Management	3
Approved elective	3
	21

BS—Secretarial Studies—Minor

A minor in secretarial studies is offered for those students who have a major in another discipline and who do not desire teacher certification in business education.

Course Requirements

	Sem. Hrs.
OADM 136—Business Calculations	3
OADM 190—Office Accounting	3
OADM—Typewriting	6
OADM—Shorthand	6
OADM 210—Word Processing I	3
	21

Management and Marketing

The Department of Management and Marketing offers the following:

- Two-year programs leading to an Associate of Applied Business degree (AAB) in
 - Real Estate
 - Small Business Management
- Four-year programs leading to a Bachelor of Business Administration degree (BBA) with a concentration in Business Administration as an OPTION in
 - Management
 - Marketing
 - Production Management
 - Real Estate
- Four-year programs leading to a Bachelor of Science degree (BS) with a MINOR in
 - Business Administration
 - Marketing
 - Real Estate

AAB—Real Estate

The two-year program in real estate is recommended for students who desire to become real estate salesmen or brokers, as well as those who are presently engaged as part or full-time real estate persons.

Course Requirements

	Sem. Hrs.
ACCT 281—Principles of Accounting I	3
ACCT 282—Principles of Accounting II	3
DATA 201—Introduction to Computers	3
ECON 201—Principles of Economics I	3
ECON 202—Principles of Economics II	3
ENG 101—Composition I	3
ENG 102—Composition II	3
FIN 252—Mathematics of Finance	3
FIN 407—Principles of Insurance	3
OADM 321—Business Communications	3
REAL 105—Principles of Real Estate	3
REAL 310—Real Estate Law	3
REAL 320—Real Estate Marketing	3
REAL 325—Appraisal of Residential Property	3
REAL 331—Real Estate Finance	3
REAL 400—Real Estate Brokerage	3
Real estate elective	3
SOC 101—General Sociology	3
Approved electives	10
	64

Suggested Course Sequence

	First Semester	Sem. Hrs.
ACCT 281—Principles of Accounting I	3	3
ECON 201—Principles of Economics I	3	3
ENG 101—Composition I	3	3
REAL 105—Real Estate Principles	3	3
SOC 101—General Sociology	3	3
		15
	Second Semester	
ACCT 282—Principles of Accounting II	3	3
DATA 201—Introduction to Computers	3	3
ECON 202—Principles of Economics II	3	3
ENG 102—Composition II	3	3
FIN 252—Mathematics of Finance	3	3
		15
	Third Semester	
REAL 320—Real Estate Marketing	3	3
REAL 325—Appraisal of Residential Property	3	3
REAL 331—Real Estate Finance	3	3
Electives	8	8
		17
	Fourth Semester	
FIN 407—Principles of Insurance	3	3
OADM 321—Business Communications	3	3
REAL 310—Real Estate Law	3	3
REAL 400—Real Estate Brokerage	3	3
Electives	5	5
		17

AAB—Small Business Management

The two-year program in small business management is recommended for students who desire to organize or own a small business firm, as well as those who are presently employed as managers or who desire to become managers. The program is designed to meet the specific needs of small business organizations and to help students acquire the knowledge to fill these needs.

Course Requirements

	Sem. Hrs.
ACCT 281—Principles of Accounting I	3
ACCT 282—Principles of Accounting II	3
DATA 201—Introduction to Computers	3
ECON 101—Introduction to the American Economy	3
ENG 101—Composition I	3
ENG 102—Composition II	3
FIN 252—Mathematics of Finance	3
MKT 304—Marketing	3
MKT 305—Purchasing	3

MNGT 261—The Legal Environment of Business Organizations	3
MNGT 310—Small Business Organization	3
MNGT 311—Personnel Management	3
OADM 136—Business Calculations	3
OADM 321—Business Communications	3
OADM 363—Office Management	3
SPCH 110—Basic Speech	3
OR	
SPCH 370—Business and Professional Speech	3
Approved electives	16
	64

Suggested Course Sequence

First Semester	Sem. Hrs.
DATA 201—Introduction to Computers	3
ECON 101—Introduction to the American Economy	3
ENG 101—Composition I	3
SPCH 110—Basic Speech	3
Elective	4
	16
Second Semester	
ACCT 281—Principles of Accounting I	3
ENG 102—Composition II	3
OADM 136—Business Calculations	3
OADM 321—Business Communications	3
Electives	4
	16
Third Semester	
ACCT 282—Principles of Accounting	3
FIN 252—Mathematics of Finance	3
MKT 304—Marketing	3
MNGT 261—The Legal Environment of Business Organizations	3
MNGT 310—Small Business Organization	3
Elective	2
	17
Fourth Semester	
MKT 305—Purchasing	3
MNGT 311—Personnel Management	3
OADM 363—Office Management	3
Electives	6
	15

Bachelor of Business Administration Core

The Bachelor of Business Administration includes a core of courses which are designed to provide the student in business and economics with a base from which to pursue course work in a special area of interest.

Business Administration Core

	Sem. Hrs.
ACCT 281—Principles of Accounting I	3
ACCT 282—Principles of Accounting II	3
DATA 201—Introduction to Computers	3
ECON 350—Microeconomic Theory	3
FIN 360—Business Finance	3
MKT 304—Marketing	3
MNGT 261—The Legal Environment of Business Organizations	3
MNGT 301—Principles of Management	3
MNGT 306—Production Management	3
MNGT 472—Business Policies and Problems	3
OADM 321—Business Communications	3
	33

BBA—Management—Option

The management option is designed to prepare students for entrance into managerial careers in personnel, production, or general management. Since management of business firms involves both human and technical skills, students are provided with maximum breadth in a range of available elective courses.

Course Requirements

	Sem. Hrs.
BBA Core	33
ACCT 300—Managerial Accounting	
OR	
ACCT 390—Cost Accounting I	3
MNGT 311—Personnel Management	3
MNGT 411—Labor Relations	3
Approved electives	12
	54

Suggested Course Sequence

FRESHMAN YEAR		
	First Semester	Sem. Hrs.
ENG 101—Composition I	3
MATH 160—Mathematics for Business and Economics	4
SCI 103—Introduction to Physical Science	3
SOC or PSY—elective	3
Elective	3
		16

Second Semester	
BIOL 105—Introduction to Biological Science	3
DATA 201—Introduction to Computers	3
ENG 102—Composition II	3
GOVT or GEOG—elective	3
Elective	3
	15

SOPHOMORE YEAR	
First Semester	
ACCT 281—Principles of Accounting I	3
ECON 201—Principles of Economics I	3
ENG—literature elective	3
HUM—humanities elective	3
OADM 321—Business Communications	3
Elective	2
	17

Second Semester	
ACCT 282—Principles of Accounting II	3
ECON 202—Principles of Economics II	3
HLTH 150—Personal Health	2
MKT 304—Marketing	3
PHED—activity	1
Electives	6
	18

JUNIOR YEAR	
	First Semester
ACCT 300—Managerial Accounting	
OR	
ACCT 390—Cost Accounting I	3
ECON 350—Microeconomic Theory	3
MNGT 261—The Legal Environment of Business Organizations	3
MNGT 301—Principles of Management	3
Electives	4
	16

Second Semester	
FIN 360—Business Finance	3
MATH 354—Business Statistics	3
MNGT 306—Production Management	3
Business elective	3
Elective	2
	14

SENIOR YEAR	
	First Semester
MNGT 311—Personnel Management	3
MNGT 411—Labor Relations	3
SPCH 370—Business and Professional Speech	3
Business elective	3
Electives	4
	16

Second Semester	
MNGT 472—Business Policies and Problems	3
Business elective	6
Electives	7
	16

BBA—Marketing—Option

This option is arranged to prepare for entrance into marketing careers. The program is recommended for students who plan to work with sales departments of establishments, advertising agencies, and agencies engaged in marketing research. It is also recommended for individuals who plan to work as specialty salesmen of consumer and industrial goods and for those who plan to enter marketing management.

Course Requirements

	Sem. Hrs.
BBA Core	33
MKT 351—Sales Management	3
MKT 453—Marketing Policies	3

MKT 552—Marketing Research and Analysis	3
MKT 555—Advertising	3
Approved electives	9
	54

Suggested Course Sequence

FRESHMAN YEAR

First Semester	Sem. Hrs.
BIOL 105—Introduction to Biological Science	3
ENG 101—Composition I	3
HLTH 150—Personal Health	2
MATH 160—Mathematics for Business and Economics	4
PHED—activity	1
SOC or PSY—elective	3
	16

Second Semester	
DATA 201—Introduction to Computers	3
ENG 102—Composition II	3
GOVT or GEOG—elective	3
SCI 103—Introduction to Physical Science	3
Elective	3
	15

SOPHOMORE YEAR

First Semester	
ACCT 281—Principles of Accounting I	3
ECON 201—Principles of Economics I	3
ENG—literature elective	3
HUM—humanities elective	3
OADM 321—Business Communications	3
Elective	2
	17

Second Semester	
ACCT 282—Principles of Accounting II	3
ECON 202—Principles of Economics II	3
MKT 304—Marketing	3
MNGT 261—The Legal Environment of Business Organizations	3
Elective	3
	15

JUNIOR YEAR

First Semester	
ECON 350—Microeconomic Theory	3
FIN 360—Business Finance	3
MKT 351—Sales Management	3
MNGT 301—Principles of Management	3
Electives	4
	16

Second Semester	
MATH 354—Business Statistics	3
MNGT 306—Production Management	3
SPCH 370—Business and Professional Speech	3
Electives	8
	17

SENIOR YEAR

First Semester	
MKT 552—Marketing Research and Analysis	3
MKT 555—Advertising	3
Business elective	3
Electives	6
	15

Second Semester	
MKT 453—Marketing Policies	3
MNGT 472—Business Policies and Problems	3
Business electives	6
Electives	5
	17

BBA—Production Management—Option

The production option to the BBA degree is designed to prepare students for management careers in the production or operations activities of businesses and institutions. Emphasis is placed on typical manufacturing operations, but the management skills are equally applicable in services such as communications, transportation, and distribution.

Course Requirements

	Sem. Hrs.
BBA Core	33
ACCT 390—Cost Accounting I	3
MNGT 311—Personnel Management	3
MNGT 411—Labor Relations	3
MNGT 506—Operations Analysis	3

At least 11 hours from:	
IET 103—Technical Drawing I	3
IET 286—General Metals II	3
IET 317—Time and Motion Study	3
IET 319—Quality Control	3
IET 422—Industrial Safety	3
IET 472—Basic Industries Practicum	3
	56

Suggested Course Sequence

FRESHMAN YEAR

First Semester	Sem. Hrs.
ENG 101—Composition I	3
MATH 160—Math for Business and Economics	4
SCI 103—Introduction to Physical Science	3
SOC or PSY—elective	3
Elective	3
	16

Second Semester	
BIOL 105—Introduction to Biological Science	3
DATA 201—Introduction to Computers	3
ENG 102—Composition II	3
GOVT or GEOG—elective	3
Elective	3
	15

SOPHOMORE YEAR

First Semester	
ACCT 281—Principles of Accounting I	3
ECON 201—Principles of Economics I	3
ENG—literature elective	3
HLTH 150—Personal Health	2
MNGT 261—The Legal Environment of Business Organizations	3
OADM 321—Business Communications	3
	17

Second Semester	
ACCT 282—Principles of Accounting II	3
ECON 202—Principles of Economics II	3
IET—elective	3
MKT 304—Marketing	3
PHED—activity	1
Electives	4
	17

JUNIOR YEAR

First Semester	
ACCT 390—Cost Accounting I	3
ECON 350—Microeconomic Theory	3
MNGT 301—Principles of Management	3
MNGT 311—Personnel Management	3
Electives	4
	16

Second Semester	
FIN 360—Business Finance	3
IET—elective	3
MATH 354—Business Statistics	3
MNGT 306—Production Management	3
MNGT 411—Labor Relations	3
	15

SENIOR YEAR

First Semester	
IET—elective	3
HUM—humanities elective	3
SPCH 370—Business and Professional Speech	3
Electives	7
	16

Second Semester	
IET—elective	3
MNGT 472—Business Policies and Problems	3
MNGT 506—Operations Analysis	3
Electives	7
	16

BBA—Real Estate—Option

This option is designed to prepare students for careers as real estate salespersons and brokers. The program will also give students an educational background for positions in industry as specialists in real estate and land development.

Course Requirements

	Sem. Hrs.
BBA Core	33
REAL 105—Principles of Real Estate	3
REAL 310—Real Estate Law	3

REAL 320—Real Estate Marketing	3
REAL 325—Appraisal of Residential Property	3
REAL 331—Real Estate Finance	3
Approved real estate electives	6
	54

Suggested Course Sequence

FRESHMAN YEAR

First Semester	Sem. Hrs.
ENG 101—Composition I	3
MATH 160—Mathematics for Business and Economics	4
REAL 105—Real Estate Principles	3
SCI 103—Introduction to Physical Science	3
SOC or PSY—elective	3
	16

Second Semester	Sem. Hrs.
BIOL 105—Introduction to Biological Science	3
DATA 201—Introduction to Computers	3
ENG 102—Composition II	3
GOVT or GEOG—elective	3
Elective	3
	15

SOPHOMORE YEAR

First Semester	Sem. Hrs.
ACCT 281—Principles of Accounting I	3
ECON 201—Principles of Economics I	3
HLTH 150—Personal Health	2
MNGT 261—The Legal Environment of Business Organizations	3
OADM 321—Business Communications	3
PHED—activity	1
REAL 320—Real Estate Marketing	3
	18

Second Semester	Sem. Hrs.
ACCT 282—Principles of Accounting II	3
ECON 202—Principles of Economics II	3
PHED—activity	1
REAL 310—Real Estate Law	3
Electives	6
	16

JUNIOR YEAR

First Semester	Sem. Hrs.
ECON 350—Microeconomic Theory	3
HUM—humanities elective	3
MNGT 301—Principles of Management	3
REAL 331—Real Estate Finance	3
Electives	4
	16

Second Semester	Sem. Hrs.
FIN 360—Business Finance	3
MATH 354—Business Statistics	3
MKT 304—Marketing	3
Real estate elective	3
Elective	3
	15

SENIOR YEAR

First Semester	Sem. Hrs.
ENG—literature elective	3
MNGT 306—Production Management	3
REAL 325—Appraisal of Residential Property	3
SPCH 370—Business and Professional Speech	3
Electives	4
	16

Second Semester	Sem. Hrs.
MNGT 472—Business Policies and Problems	3
Real estate elective	3
Electives	10
	16

BS—Business Administration—Minor

Students selecting programs with business administration minor should first consult with advisors in their major areas. Department advisors are available for assistance.

Course Requirements

	Sem. Hrs.
ACCT 281—Principles of Accounting I	3
ACCT 282—Principles of Accounting II	3
DATA 201—Introduction to Computers	3
FIN 360—Business Finance	3
MKT 304—Marketing	3
MNGT 261—The Legal Environment of Business Organizations	3
MNGT 301—Principles of Management	3
MNGT 306—Production Management	3
	24

In addition, students completing this minor are required to include ECON 201 and 202 as part of their general education courses.

BS—Marketing—Minor

Students selecting programs with marketing minor should first consult with advisors in their major areas. Department advisors are available for assistance.

Course Requirements

	Sem. Hrs.
ACCT 281—Principles of Accounting I	3
DATA 201—Introduction to Computers	3
MKT 304—Marketing	3
MKT 453—Marketing Policies	3
MKT 552—Marketing Research and Analysis	3
<i>Nine hours of electives to be chosen from the following:</i>	
MKT 305—Purchasing	3
MKT 350—Salesmanship	3
MKT 351—Sales Management	3
MKT 450—Consumer Behavior	3
MKT 451—Retail Merchandising	3
MKT 555—Advertising	3
	24

BS—Real Estate—Minor

Students selecting programs with real estate minor should first consult with advisors in their major areas. Department advisors are available for assistance.

Course Requirements

	Sem. Hrs.
REAL 105—Principles of Real Estate	3
REAL 310—Real Estate Law	3
REAL 320—Real Estate Marketing	3
REAL 325—Appraisal of Residential Property	3
REAL 331—Real Estate Finance	3
Approved real estate electives	9
	24

Departments

Curriculum and Instruction
Health, Physical Education, and Recreation
Leadership and Foundations
Psychology

The School of Education is the administrative unit of the university which provides and administers professional education courses directly related to the preparation and certification of teachers and other educational workers. The School offers undergraduate and/or graduate curricula in health, physical education, recreation, psychology, early childhood, elementary, secondary, special education, guidance and counseling, administration, higher education, and adult and continuing education. Also Teacher In-Service, Child Development Laboratory, and several other service activities are located in local schools.

Bachelor Degree Programs

AB—Elementary Education
AB—Health
AB—Learning and Behavior Disorders
AB—Physical Education
AB—Psychology
AB—Recreation
AB—Special Education
AB—Trainable Mentally Handicapped

Teacher Certification

Elementary Education—certified grades 1-8
Health
Learning and Behavior Disorders—certified learning and behavior disorders grades K-12 and elementary grades 1-8
Physical Education
Psychology
Trainable Mentally Handicapped—certified trainable mentally handicapped grades K-12 and elementary grades 1-8

Endorsements

Driver Education
Early Childhood
Elementary Physical Education

Teacher Education Program and Professional Laboratory Experiences

The coordinator of professional laboratory experiences is responsible for (1) administration of the teacher education program and (2) administration and supervision of all professional laboratory experiences associated with the School of Education.

Teacher education is a field-based program that provides extensive laboratory experiences with children in area schools. Field experiences assist the university student in understanding the function of public school teaching and practical experiences in methodology. Each professional education course contains a required clinical and field experience component. Placements are made in cooperation with instructors and Teacher Education Office, 101 Ginger Hall.

Secondary education majors are required to complete 150 hours of clinical and field experiences prior to student teaching. One-half of these shall be devoted to experiences in the public school (field experiences).

Teacher Education Program Admission and Retention

Students seeking teacher certification must apply for and be admitted to the teacher education program. Students will be required to meet admission standards concurrent with their application to teacher education. They must also select areas of concentration, major(s) and/or minor(s) that are certifiable. Psychology and sociology majors must present a teaching minor in order to enter the teacher education program.

Students in teacher education must complete 45 hours of general education requirements, which shall include PSY 154, HLTH 150, one physical education activity course, and SPCH 110 or 370. Students should apply for admission to the teacher education program during the semester in which they are enrolled in Human Growth and Development. Failure to apply at the sophomore level may result in an extended program.

Criteria for admission

1. Formal application is filed during the semester in which the student is enrolled in Human Growth and Development.
2. Completion of 45 semester hours for secondary students; 30 semester hours for elementary and special education students.
3. An unofficial copy of the student's transcript with a minimum cumulative grade-point average of 2.25 on a 4.0 scale must accompany the application.
4. Three recommendations from instructors familiar with applicant's qualifications.
5. Successful completion of speech, hearing, and vision screening test.
6. Successful completion of Comprehensive Test of Basic Skills with minimum score of 12.5 on each section—reading, language arts, and mathematics.
7. Successful completion of prerequisite courses (Foundations of Education, Human Growth and Development, PSY 154, and SPCH 110 or 370) and prescribed pre-professional laboratory experiences.
8. Demonstrated proficiency in oral and written communication. (Successful completion of English Composition I and II; Composition III, Technical Composition, where applicable.)
9. Demonstrated moral, ethical, and social behavior commensurate with standards of the school and community-at large.
10. Recommendation by School Admissions Interview Committee.

Transfer students must apply immediately for admission to the program and meet criteria outlined above. For transfer students, the dean of the school may permit admission to restricted courses pending the processing of the student's application for admission to the program.

Retention in the teacher education program is dependent upon the maintenance of the levels of performance required

for admission. Any student denied admission to, or suspended from, the teacher education program may reapply for admission once each semester through the coordinator of professional laboratory experiences.

Admission Procedures

Step 1—Enroll in Foundations of Education (EDF 207—3 hours).

- A. Complete Comprehensive Test of Basic Skills in Testing Center, 501 Ginger Hall.
- B. File ACT scores in Testing Center.
- C. Complete assigned pre-student teaching experiences in a public school.

Step 2—Enroll in Human Growth and Development (EDF 211—3 hours).

- A. Complete formal application for admission to teacher education program.
- B. Obtain three recommendations from instructors familiar with applicant's qualifications.
- C. Complete speech, hearing, and vision screening.
- D. Obtain unofficial copy of transcript from the Office of Registrar to accompany completed application.

Step 3—The student takes the completed application to the chairman of the Admissions Interview Committee of their school and makes arrangements for an individual interview.

Step 4—The Admissions Interview Committee chairman will return all materials to the Teacher Education Office, 101 Ginger Hall, for final review by the university Teacher Education Council.

Courses for Which Admission to the Teacher Education Program is a Prerequisite

AGR 580—Methods of Teaching Vocational Agriculture
 AGR 582—Adult and Young Farmer Education
 AGR 584—Teaching Vocational Agriculture
 AGR 586—Planning Programs in Vocational Agriculture
 AGR 588—Curriculum Development and Content Selections
 AGR 592—Supervision in Agriculture
 ART 300—Elementary Materials and Methods
 ART 321—Materials and Methods of Secondary Art
 BSED 375—Teaching Typewriting and Office Practice
 BSED 376—Teaching Shorthand and Transcription
 BSED 475—Teaching Accounting and Basic Business
 EDEC 529—Practicum in Early Childhood Education
 EDEL 321—Teaching of Arithmetic
 EDEL 322—Teaching Social Studies in the Elementary School
 EDEL 323—Language Arts for the Elementary School
 EDEL 333—Fundamentals of Elementary Education
 EDEL 336—Foundations of Reading
 EDEL 337—Reading Strategies for the Elementary Teacher
 EDEL 410—Human Growth and Development II
 EDEL 425—Supervised Teaching Practicum (Elementary)
 EDEL 427—Professional Semester (Elementary)
 EDSE 312—Teaching Skills and Media
 EDSE 415—Teacher in Today's Schools
 EDSE 416—Student Teaching
 EDSE 576—Reading in the Secondary School
 EDSP 332—Teaching the Exceptional Student
 EDSP 435—Supervised Teaching Practicum (LBD)
 EDSP 436—Supervised Teaching Practicum (TMH)
 ENG 500—Studies in English for Teachers
 ENG 502—Non-Print Literary Materials for Teachers
 FRN 405—Linguistics and Language Teaching
 GER 405—Linguistics and Language Teaching
 HEC 470—Methods of Teaching Vocational Home Economics
 HEC 573—Curriculum Development in Home Economics
 HIS 375—The Teaching of Social Studies
 HLTH 300—Health in the Elementary School
 HLTH 304—Health in the Secondary School
 IET 390—Principles of Industrial Education
 IET 392—Technical Curriculum and Media Development
 IET 393—Methods in Vocational Industrial Education
 IET 394—Student Teaching in Vocational Industrial Education
 IET 475—Teaching Industrial Arts
 IET 478—Supervised Teaching Practicum in Industrial Education—Orientation and Exploration Levels
 MATH 373—Principles and Techniques of Mathematics
 MUSE 325—Materials and Methods for Elementary Grades

MUSE 375—Vocal Materials and Methods
 MUSE 376—Instrumental Materials and Methods
 PHED 300—Physical Education in the Elementary School
 PHED 303—Physical Education in the Secondary School
 PHYS 374—Physics for Secondary Teachers
 RUS 405—Linguistics and Language Teaching
 SCI 490—Science for the Elementary Teacher
 SCI 591—Science for the Middle School Teacher
 SCI 592—Science for the Secondary Teacher
 SPA 405—Linguistics and Language Teaching

Professional Laboratory Experiences

Application for student teaching must be filed early in the semester immediately preceding the semester in which the student expects to enroll in the professional semester. Student teaching application forms are obtained from the coordinator of professional laboratory experiences, Room 101, Ginger Hall. To be eligible for the professional semester, the student must have completed the following requirements:

1. Admission to and good standing in teacher education program.
2. Completion of prerequisite courses in sequence of professional education. (Secondary certification program—EDF 207, 211, 311, EDSE 312, and EDSP 332. Elementary certification program—EDF 207 and 211, EDEL 301, 321, 322, 323, 336 or 337, EDSP 230. LBD and TMH certification program—elementary education requirements plus EDSP 231 (TMH only), 350, 537 or 547, 550, 551, 553, 555 or 556, and 557.)
3. Successfully completed pre-student teaching laboratory experiences associated with courses in the professional education sequence. Transfer or substitution of required education courses is dependent upon applicant completing appropriate pre-laboratory experiences.
4. Present minimum grade-point standing of 2.50 on a 4.0 scale on courses completed at Morehead State University.
5. Present minimum grade-point standing of 2.5 on 4.0 scale on all course work completed in area of concentration, major(s), and minor(s).
6. Have completed a minimum of 90 semester hours.
7. Present unofficial copy of check sheet depicting approved major for teacher certification. (Psychology and sociology majors must also present a teaching minor.)
8. Completed 75 percent of course requirements in area of concentration or major teaching field (to include required methods courses.)
9. Have a minimum of one semester residence at Morehead State University.
10. Must have a satisfactory recommendation of the teacher education committee of the school in which the student is enrolled regarding personal, social, and ethical fitness for teaching.
11. Must have approval of university Teacher Education Council.
12. Must have teaching minor completed in order to student teach in that field.
13. Must successfully complete the National Teachers Examination. Expense for this examination is to be borne by the student.

Courses for which application must be made with coordinator of professional laboratory experiences one semester in advance include:

EDEL 425—Supervised Teaching Practicum (Elementary)
 EDEL 427—Professional Semester—Elementary
 EDEC 529—Practicum in Early Childhood Education
 EDSE 416—Student Teaching
 EDSP 435—Supervised Teaching Practicum (LBD)
 EDSP 436—Supervised Teaching Practicum (TMH)
 EDSP 675—Practicum in Special Education
 EDGC 669—Practicum in Guidance and Counseling

REC 290—Field Experience I
 REC 490—Field Experience II
 REC 477—Recreation Internship

Recommendation for Certification

Regulations of the Kentucky Department of Education stipulate that the applicant for a teacher's certificate must be recommended by the institution offering the teacher preparation program. The dean, School of Education, is the official designated to recommend for certification graduates of Morehead State University.

Application for the appropriate certificate should be completed early in the semester prior to graduation. Application forms may be obtained in the Office of the Registrar, Howell McDowell Administration Building.

Curriculum and Instruction

This department is responsible for undergraduate and graduate professional education curriculum leading to certification of teachers in early childhood, elementary, secondary, and special education programs. The Reading Center, Head Start Program, pre-student teaching laboratory experiences, Instructional Media Center, and Microteaching Laboratory are located in this department.

Early Childhood

The objective of the program in Early Childhood Education is to provide an additional kindergarten endorsement for teachers holding elementary certification. Training activities for child care givers in child/infant care centers and nursery schools.

Requirements for Certification in Kindergarten Education

In addition to meeting all requirements for elementary certification:

EDEC 527—The Pre-School Child	Sem. Hrs.
EDEC 528—Activities and Materials in Early Childhood Education	3
EDEC 529—Practicum in Early Childhood Education	4

Elementary

The functions of the program in elementary education are: (1) to provide professional preparation for teachers and other personnel at undergraduate and graduate levels; (2) to cooperate with public school personnel in providing consultants, assisting in workshop programs, providing laboratory experiences in public schools, and working with local, state, and national educational agencies for the improvement of education.

A close working relationship is maintained with the public schools within the region through the student teaching program by visitations to each student teacher during the semester. Students who complete the program are eligible for Kentucky teacher certification grades 1-8.

Area of Concentration in Elementary Education

(Includes both area and general education requirements)

	Sem. Hrs.
EDUCATION	41
EDF 207—Foundations of Education	3
EDF 211—Human Growth and Development	3
EDSP 230—Education of Exceptional Children	3
EDEL 301—Media Strategies	3
EDEL 321—Teaching of Arithmetic	3
EDEL 322—Teaching Social Studies in Elementary School	3
EDEL 323—Language Arts for the Elementary School	3
EDEL 336—Foundations of Reading	3
EDEL 337—Reading Strategies for the Elementary Teacher	3

EDEL 425—Supervised Teaching Practicum—Elementary	12
EDUC 582—Discipline and Classroom Management	3
COMMUNICATIONS AND HUMANITIES	
ENG—composition	6
ENG—literature electives	6
SPCH—speech electives	3
PHIL—philosophy elective	3
Communications or humanities elective	3
RELATED STUDIES	
ART 121 or 221	3
EDEL 228—Literature and Materials for Children	3
GEO 100, 211, 241, or 300	3
HLTH 300—Health in the Elementary School	2
*MATH 231—Mathematics for the Elementary Teacher I	3
*MATH 232—Mathematics for the Elementary Teacher II	3
MUST 100—Rudiments of Music	2
MUSE 221—Music for the Elementary Teacher	2
PHED 300—Physical Education in the Elementary School	2
PSY 154—Introduction to Psychology	3
SCI 490—Science for the Elementary Teacher	3
Elective—Creative Expression	3
GENERAL EDUCATION	
ENG 101—Composition I	39
ENG 102—Composition II	3
ENG 202 or 211 or 212	3
SPCH 110 or 370	3
FNA 160—Appreciation of Fine Arts	3
SCI 103 or higher	3
BIOL 105 or higher	3
PHIL 200—Introduction to Philosophy	3
HIST 130 or 131 and 132	3
HIST 140 or 141 and 142	3
GOVT 141 or 242 or 310	3
SOC 101—General Sociology	3
HLTH 150—Personal Health	2
Elective—PHED activity course	1
*Course meets general education requirements	
APPROVED ELECTIVES	16
	128

Library Science/Instructional Media

Upon the recommendation of the University Curriculum Committee and based upon the reduction of enrollment in Library Science Instructional Media, the undergraduate program in this area was phased out effective September 1, 1979. Therefore, course offerings in this area will be limited to courses of general educational value, courses to support public library programs, and courses necessary to support the teacher education program.

Secondary

The primary role of secondary education is to serve various schools of the University by offering a professional education curriculum leading to certification of teachers for secondary schools.

Requirements for Certification in Secondary Education

	Sem. Hrs.
PROFESSIONAL EDUCATION COURSES	
EDF 207—Foundations of Education	29
EDF 211—Human Growth and Development	3
EDF 311—Learning Theories in the Classroom	3
EDSE 312—Teaching Skills and Media	3
EDSP 332—Teaching the Exceptional Student	2
PROFESSIONAL SEMESTER	
EDSE 415—Teacher in Today's Schools	15
EDSE 416—Student Teaching	3
	12
GENERAL EDUCATION REQUIREMENTS	
ENGLISH	45
ENG 101 or 103	9
ENG 102 or 192	
ENG 202, 211, or 212	

HUMANITIES AND COMMUNICATIONS	6
SPCH 110 or 370	
Total of 3 hours from:	
FNA 160	
Foreign Language	
ART 263 or 264	
MUSH 161, 162, 261, 361, or 362	
THEA 100 or 110	
SOCIAL SCIENCE AND ECONOMICS	15
At least 3 hours from each area:	
1. HIST 131, 132, 141, or 142	
ECON 101 or 201	
2. SOC 101 or 305	
PSY 154 (required for teacher certification)	
3. GOVT 141, 242, or 310	
GEO 100, 211, or 300	
SCIENCE AND MATHEMATICS	12
At least 3 hours from each area:	
1. MATH 123 or higher	
2. BIOL 105 or higher	
3. SCI 103 or higher, including CHEM, GEOS, PHYS	
4. PHIL 200 or 303 or science or math elective	
HEALTH AND PHYSICAL EDUCATION	3
HLTH 150 (2) and PE activity (1)	

Special Education

This program is designed to provide the special education student with skills in teaching and administering a special class program and competencies for acting as resource personnel to others in the school. Program emphasizes training in techniques of working with pupils who have perceptual, physical, mental, and emotional handicaps that inhibit learning and development.

The department offers (1) area of concentration in learning and behavior disorders, (2) area of concentration in trainable mentally handicapped, and (3) non-teaching major and minor in special education. Area of concentration in learning and behavior disorders provides teacher certification in special education for teaching children who have learning disabilities or who are educable mentally handicapped, mildly emotionally disturbed, or orthopedically handicapped. Area of concentration in trainable mentally handicapped provides teacher certification for teaching children who are moderately or severely mentally handicapped. Both the learning and behavior and trainable mentally handicapped programs provide for teacher certification for all grade levels taught within the public schools. Both programs also provide for certification in elementary education (grades 1-8). The non-teaching major and minor may be taken without having a teaching major or minor in another field, and student is exempted from the professional semester and professional education courses outside the program of study for the major or minor in special education.

Area of Concentration in Learning and Behavior Disorders (includes both area and general education requirements)

Requirements

	Sem. Hrs.
SPECIAL EDUCATION	33
EDSP 230—Education of Exceptional Children	3
EDSP 320—Introduction to Corrective Speech	3
EDSP 350—Characteristics of Individuals with Mental Retardation and Orthopedic Handicaps	3
EDSP 435—Supervised Teaching Practicum—LBD	6
EDSP 537—Educational Assessments of Exceptional Children	3
EDSP 550—Characteristics of Individuals with Learning Disabilities and Behavior Disorders	3
EDSP 551—Curriculum for Pre-School Exceptional Child	3
EDSP 553—Language Arts for Exceptional Students	3
EDSP 555—Prescriptive Teaching for Children with Learning and Behavior Problems	3
EDSP 557—Content Areas and Career Preparation for Exceptional Students	3

EDUCATION	35
EDF 207—Foundation of Education	3
EDF 211—Human Growth and Development	3
EDEL 228—Literature and Materials for Children	3
EDEL 301—Media Strategies	2
EDEL 321—Teaching of Arithmetic	3
EDEL 322—Teaching Social Studies in the Elementary School	3
EDEL 323—Language Arts for the Elementary School	3
EDEL 336—Foundations of Reading	3
EDEL 337—Reading Strategies for the Elementary Teacher	3
EDEL 425—Supervised Teaching Practicum—Elementary	6
EDUC 582—Discipline and Classroom Management	3
GENERAL EDUCATION	45
ENG 101 or 103	3
ENG 192—Technical Composition	3
ENG 202, 211, or 212	3
SPCH 110 or 370	3
BIOL 331—Human Anatomy	3
SCI 103 or higher	3
MATH 231—Mathematics for the Elementary Teacher I	3
MATH 232—Mathematics for the Elementary Teacher II	3
Elective—Creative Expression	3
HIST 130—A History of Mankind	3
HIST 140—The Progress of American Democracy	3
PSY 154—Introduction to Psychology	3
SOC 101—General Sociology	3
Elective—GOVT 141, 242, 310, GEO 100, 211, 241, or 300	3
Elective PHED activity course	1
HLTH 150—Personal Health	2
RELATED STUDIES	14
ART 121 or 221	3
MUST 100—Rudiments of Music	2
MUSE 221—Music for the Elementary Teacher	2
HLTH 300—Health in the Elementary School	2
PHED 300—Physical Education in the Elementary School	2
SCI 490—Science for the Elementary Teacher	3
ELECTIVES	1
	128

Area of Concentration in Trainable Mentally Handicapped (includes both area and general education requirements)

Requirements

	Sem. Hrs.
SPECIAL EDUCATION	36
EDSP 230—Education of Exceptional Children	3
EDSP 231—Trainable Mentally Handicapped Field Experience	3
EDSP 320—Introduction to Corrective Speech	3
EDSP 350—Characteristics of Individuals with Mental Retardation and Orthopedic Handicaps	3
EDSP 436—Supervised Teaching Practicum—TMH	6
EDSP 547—The Trainable Mentally Handicapped	3
EDSP 550—Characteristics of Individuals with Learning Disabilities and Behavior Disorders	3
EDSP 551—Curriculum for Pre-School Exceptional Children	3
EDSP 553—Language Arts for Exceptional Students	3
EDSP 556—Teaching the Trainable Mentally Handicapped	3
EDSP 557—Content Areas and Career Preparation for Exceptional Students	3
EDUCATION	35
EDF 207—Foundation of Education	3
EDF 211—Human Growth and Development	3
EDEL 228—Literature and Materials for Children	3
EDEL 301—Media Strategies	2
EDEL 321—Teaching of Arithmetic	3
EDEL 322—Teaching Social Studies in the Elementary School	3
EDEL 323—Language Arts for the Elementary School	3
EDEL 336—Foundations of Reading	3
EDEL 337—Reading Strategies for the Elementary Teacher	3
EDEL 425—Supervised Teaching Practicum—Elementary	6
EDUC 582—Discipline and Classroom Management	3
GENERAL EDUCATION	45
ENG 101 or 103	3
ENG 192—Technical Composition	3
ENG 202, 211, or 212	3
SPCH 110 or 370	3
BIOL 331—Human Anatomy	3

SCI 103 or higher	3
MATH 231—Mathematics for the Elementary Teacher I	3
MATH 232—Mathematics for the Elementary Teacher II	3
Elective—Creative Expression	3
HIST 130—A History of Mankind	3
HIST 140—The Progress of American Democracy	3
PSY 154—Introduction to Psychology	3
SOC 101—General Sociology	3
Elective—GOVT 141, 242, 310, GEO 100, 211, 241, or 300	3
Elective PHED activity course	1
HLTH 150—Personal Health	2
RELATED STUDIES	14
ART 121 or 221	3
MUST 100—Rudiments of Music	2
MUSE 221—Music for the Elementary Teacher	2
HLTH 300—Health in the Elementary School	2
PHED 300—Physical Education in the Elementary School	2
SCI 490—Science for the Elementary Teacher	3
ELECTIVES	1
	130

The general education, related studies, and elementary education requirements for an area of concentration in trainable mentally handicapped and learning and behavior disorders are identical. The special education component has two courses that are different, and students in the trainable program must also take EDSP 231. Each program requires a separate practicum experience. Students should consider completing the requirements for both programs since opportunities for employment are enhanced.

Non-Teaching Major and Minor in Special Education

The department offers a non-teaching major and minor for students who would like to study special education, but do not desire teacher certification. The major or minor is often taken in connection with majors or minors (for example, recreation or psychology) which prepare individuals to work with adults or children in non-public settings.

Requirements for a Major (non-teaching)

EDSP 230—Education of Exceptional Children	Sem. Hrs. 3
EDSP 350—Characteristics of Individuals with Mental Retardation and Orthopedic Handicaps	3
EDSP 550—Characteristics of Individuals with Learning Disabilities and Behavior Disorders	3
EDSP 537—Educational Assessment of Exceptional Children	3
OR	
EDSP 547—The Trainable Mentally Handicapped	3
EDSP 555—Prescriptive Teaching for Children with Learning and Behavior Problems	3
OR	
EDSP 556—Teaching the Trainable Mentally Handicapped	3
EDEL 336—Foundations of Reading	3
EDSP 320—Introduction to Corrective Speech	3
OR	
SPCH 320—Introduction to Corrective Speech	3
PSY 559—Behavior Modification	3
Electives (approved by advisor)	6
Laboratory Experience EDSP 435 or EDSP 436	4
	34

Requirements for a Minor (non-teaching)

EDSP 230—Education of Exceptional Children	Sem. Hrs. 3
EDSP 350—Characteristics of Individuals with Mental Retardation and Orthopedic Handicaps	3
EDSP 550—Characteristics of Individuals with Learning Disabilities and Behavior Disorders	3
EDSP 537—Educational Assessment of Exceptional Children	3
OR	
EDSP 547—The Trainable Mentally Handicapped	3
EDSP 555—Prescriptive Teaching for Children with Learning and Behavior Problems	3
OR	
EDSP 556—Teaching the Trainable Mentally Handicapped	3

EDEL 336—Foundations of Reading	3
PSY 559—Behavior Modification	3
Laboratory Experience EDSP 435 or EDSP 436	4
	25

Health, Physical Education, and Recreation

The Department of Health, Physical Education, and Recreation offers graduate and undergraduate professional preparation programs in health, physical education, recreation, driver education, athletic training, and safety education. Also, the department provides a service program with a wide variety of activity courses, including aquatics available to all students. A broad intramural sports program is offered with student, faculty, and staff participation.

Health

Requirements for a Major

PHED 301—Evaluation in Health, Physical Education, and Recreation	Sem. Hrs. 3
PHED 402—Kinesiology	3
PHED 432—Physiology of Exercise	3
HLTH 205—Mental Health	3
HLTH 303—Community Health	3
HLTH 304—Health in the Secondary School	2
HLTH 320—Elements of Nutrition	3
HLTH 360—Family Health	3
HLTH 475—School Health Program	3
HLTH 508—Principles of General School Safety	3
HLTH 518—Use and Abuse of Drugs	3
	32

Requirements for a Minor

PHED 402—Kinesiology	Sem. Hrs. 3
PHED 432—Physiology of Exercise	3
HLTH 320—Elements of Nutrition	3
HLTH 360—Family Health	3
HLTH 475—The School Health Program	3
HLTH 508—Principles of General School Safety	3
HLTH 518—Use and Abuse of Drugs	3
HLTH 304—Health in the Secondary School	2
	23

Requirements for a Minor in Safety Education

HLTH 203—Safety and First Aid	Sem. Hrs. 3
HLTH 200—Introduction to Driver Education	3
HLTH 201—Administration of Driver and Traffic Education	3
HLTH 202—Supervision of Safety Education	3
HLTH 306—Methods of Teaching Driver Education	3
HLTH 307—Intermediate Driver Education	3
HLTH 400—Advanced Driver Education	3
	21

Requirements for Endorsement in Driver Education

HLTH 203—Safety and First Aid	Sem. Hrs. 3
HLTH 200—Introduction to Driver Education	3
HLTH 307—Intermediate Driver Education	3
HLTH 400—Advanced Driver Education	3
	12

Physical Education

Requirements for a Major

PHED 104—Gymnastics	Sem. Hrs. 1
PHED 120—Basic Rhythms	1
PHED 131—Intermediate Swimming	1
PHED 132—Life Saving	1
PHED 150—Introduction to Physical Education	2
PHED 422—Coaching Inter-Scholastic Athletics	3
PHED 301—Evaluation in Health, Physical Education, and Recreation	3
PHED 302—Athletic Injuries	2
PHED 303—Physical Education in the Secondary School	2
PHED 401—Organization and Administration of Physical Education	3

PHED 402—Kinesiology	3
PHED 432—Physiology of Exercise	3
PHED 475—Adapted Physical Education	2
PHED 222or PHED 223—Individual Sports	2
PHED 309, 319, 409, or 419—Team Sports	2
5 activities approved by chairman	5
	36
Supplemental requirements	6
BIOL 331—Human Anatomy	3
BIOL 332—Human Physiology	3

Students Electing K-12 Certification Must Take:

	Sem. Hrs.
PHED 206—Rhythmical Activities in the Elementary School	2
PHED 300—Physical Education in the Elementary School	2
PHED 311—Movement Exploration	3
PHED 312—Individual and Team Games for Elementary School	4
EDF 211—Human Growth and Development	3
EDEL 333—Fundamentals of Elementary Education	4
	18

Requirements for a Minor in Athletic Training

	Sem. Hrs.
HLTH 203—Safety and First Aid	3
PHED 302—Athletic Injuries	2
PHED 402—Kinesiology	3
PHED 420—Administration of School Athletic Programs	3
PHED 207—Training Room Modalities	2
PHED 208—Medical Aspects of Athletic Training	2
PHED 209—Training Room Practice	2
PHED 210—Diagnostic Techniques of Athletic Injuries	2
PHED 432—Physiology of Exercise	3
HLTH 320—Elements of Nutrition	3
	25

Recreation

Requirements for a Major in Recreation

	Sem. Hrs.
REC 201—Outdoor Recreation	3
REC 209—Recreational Sports	2
REC 285—Community Recreation	2
REC 286—Recreational Leadership	2
REC 288—Recreational Arts and Crafts	2
REC 290—Field Experience I	1
REC 305—Social Recreation	2
REC 310—Youth Organization	2
REC 375—Creative Dramatics	3
REC 388—Community Centers and Playgrounds	3
REC 390—Field Experience II	1
REC 471—Seminar	1
REC 475—Therapeutic Recreation	3
REC 477—Recreation Internship	8
REC 580—Outdoor Interpretation	3
	38

Requirements for a Minor in Recreation

21 hours approved by chairman.

Leadership and Foundations

This department is responsible for the undergraduate and graduate educational foundations component in teacher education programs. The department is responsible for graduate level professional preparation of school administrators, supervisors, counselors, and other instructional support areas. Graduate programs in Higher Education and Adult and Continuing Education are offered. The Adult Learning Center and Adult Basic Education Program are located in this department.

Psychology

The Department of Psychology is responsible for instruction, advisement, research, and service components normally associated with undergraduate and graduate studies in psychology. The undergraduate curricula include a teaching and non-teaching major and minor in psychology.

Requirements for a Major

	Sem. Hrs.
PSY 154—Introduction to Psychology	3
PSY 381—Experimental Psychology I	3
PSY 585—Systems and Theories	3
MATH 353—Statistics	3
OR	
EDSP 581—Educational Statistics	3
Selected from the following categories:	
Biopsychology	3
PSY 521—Physiological Psychology	
OR	
PSY 583—Sensory Psychology	
Developmental	3
PSY 156—Life-span Developmental Psychology	
OR	
PSY 557—Seminar in Developmental Research	
Experimental	3
PSY 554—Seminar in Social Psychology	
OR	
PSY 582—Experimental Psychology II	
OR	
PSY 548—Perception	
Learning and Motivation	3
PSY 559—Behavior Modification	
OR	
PSY 586—Motivation	
OR	
PSY 589—Psychology of Learning	
Social and Personality	3
PSY 354—Introduction to Social Psychology	
OR	
PSY 390—Psychology of Personality	
OR	
PSY 555—Environmental Psychology	
OR	
PSY 556—Introduction to Clinical Psychology	
OR	
PSY 590—Abnormal Psychology	
Elective (selected from courses not used as required courses, or from the following courses)	9
PSY 157—Psychology of Adjustment	3
PSY 199—Workshop	1-3
PSY 276—Independent Study	1-3
PSY 353—Industrial Psychology	3
PSY 422—Comparative Psychology	3
PSY 470—Research Problems	3
PSY 558—Psychological Testing	3
PSY 575—Selected Topics	1-3
PSY 599—Workshop	1-3
	36

Additionally, for teacher certification:

EDF 207—Foundations of Education	3
EDF 211—Human Growth and Development	3
EDF 311—Learning Theories in the Classroom	3
EDSE 312—Teaching Skills and Media	3
EDSP 332—Teaching the Exceptional Student	2
Professional semester:	
EDSE 415—Teacher in Today's Schools	3
EDSE 416—Student Teaching	12
	29

Requirements for a Minor

	Sem. Hrs.
PSY 154—Introduction to Psychology	3
MATH 353—Statistics	3
OR	
EDSP 581—Educational Statistics	3
Psychology electives	18
	24

Departments

Art
Communications
Languages and Literature
Music
Philosophy

Cooperative Study

A student may earn variable credit (1 to 8 hours) in Cooperative Study within the various departments of the School of Humanities. Cooperative study arrangements require prior approval of the appropriate academic department.

Art

The Department of Art offers undergraduate and graduate programs in art education and studio art. Courses on the beginning, intermediate, and advanced levels are available in art education, art history, ceramics, commercial art, crafts, drawing, figure drawing, painting, photography, printmaking, and sculpture.

Requirements for an Area of Concentration*

	Sem. Hrs.
ART 101—Drawing I	3
ART 103—Drawing II	3
ART 202—Composition and Drawing	3
ART 204—Figure Drawing I	3
ART 214—Painting Techniques I	3
ART 245—Ceramics I	3
ART 251—Printmaking I	3
ART 283—Photographic Design I	3
ART 291—Color and Design	3
ART 294—Sculpture I	3
ART 300—Elementary Materials and Methods	3
ART 304—Figure Drawing II	3
ART 314—Painting Techniques II	3
ART 414—Painting Techniques III	3
ART 514—Painting Techniques IV	3
ART 321—Materials and Methods for Secondary Art	3
ART 363—Baroque Art	3
OR	
ART 365—Arts of the United States I	3
OR	
ART 364—Modern and Contemporary Art	3
ART 345—Ceramics II	3
OR	
ART 394—Sculpture II	3
	54

Requirements for a Major*

ART 101—Drawing I	3
ART 103—Drawing II	3
ART 202—Composition and Drawing	3
ART 204—Figure Drawing I	3
ART 214—Painting Techniques I	3
ART 314—Painting Techniques II	3
ART 300—Elementary Materials and Methods	3
ART 241—Crafts I	3
OR	
ART 245—Ceramics I	3
ART 251—Printmaking I	3
ART 363—Baroque Art	3
OR	
ART 364—Modern and Contemporary Art	3
OR	
ART 365—Arts of the United States I	3
ART 291—Color and Design	3
ART 321—Materials and Methods for Secondary Art	3
	36

Requirements for a Minor*

ART 101—Drawing I	3
ART 102—Drawing II	3
ART 204—Figure Drawing I	3
ART 214—Painting Techniques I	3
ART 314—Painting Techniques II	3
ART 300—Elementary Materials and Methods	3
ART 241—Crafts I	3
OR	
ART 245—Ceramics I	3
ART 291—Color and Design	3
ART 321—Materials and Methods for Secondary Art	3
	27

*Students wishing to have this certificate validated for service in the elementary grades must include EDEL 333—Fundamentals of Elementary Education, in their programs.

Special note: ART 263 and 264 must be taken by all art areas, majors, and minors to satisfy six hours of the general education requirements in humanities.

Suggested Program

The following program for freshman and sophomore years has been devised to help students in selecting their courses and making their schedules. Close adherence will aid the student in meeting requirements for graduation.

Provisional High School Certificate
with an Area of Concentration in Art

FRESHMAN YEAR

First Semester

	Sem. Hrs.
ENG 101—Composition I	3
PHED—activity course	1
Physical science elective	3
ART 101—Drawing I	3
ART 264—Medieval and Renaissance Art	3
HLTH 150—Personal Health	2
Elective	2
	17

Second Semester

ENG 102—Composition II	3
Biological science elective	3
ART 103—Drawing II	3
ART 263—Ancient Art	3
ART 291—Color and Design	3
EDEL 207—Foundations of Education	2
	17

SOPHOMORE YEAR

First Semester

ENG—Literature elective	3
ART 202—Composition and Drawing	3
ART 204—Figure Drawing	3
Science or mathematics elective	3
ART 214—Painting Techniques I	3
	15

Second Semester

EDF 211—Human Growth and Development	3
PHED—activity course	1
ART 314—Painting Techniques II	3
ART 251—Printmaking I	3
ART 294—Sculpture I	3
Elective	3
	16

Suggested Schedule of Classes for Students with a Commercial Art Option

FRESHMAN YEAR

First Semester

	Sem. Hrs.
ENG 101—Composition I	3
Physical science elective	3
ART 101—Drawing I	3
ART 263—Ancient Art	3
ART 291—Color and Design	3
PHED—activity course	1
	16

Second Semester

ENG 192—Technical Composition	3
Biological science elective	3
ART 103—Drawing II	3
ART 264—Medieval and Renaissance Art	3
ART 292—Three Dimensional Design	3
PHED—activity course	1
	16

SOPHOMORE YEAR

First Semester

ART 104—Lettering, Layout and Design	3
ART 202—Composition and Drawing	3
ART 251—Printmaking I	3
ART 283—Photographic Design I	3
Math or science elective	3
	15

Second Semester

ART 204—Figure Drawing I	3
ART 214—Painting Techniques I	3
ART 284—Commercial Photography	3
HLTH 150—Personal Health	2
MATH—elective	3
Social science elective	3
	17

JUNIOR YEAR

First Semester

ART 203—Fashion Illustration	3
ART 290—Graphic Design I	3
ART 303—Commercial Illustration	3
ART 314—Painting Techniques II	3
SOC 101—General Sociology	3
	15

Second Semester

ART 304—Figure Drawing II	3
ART 351—Printmaking II	3
ART 353—Commercial Layout and Design	3
ART 365—Arts of the U.S.	3
JOUR 483—Advertising Copy Writing	2
ENG 202—Introduction to Literature	3
	17

SENIOR YEAR

First Semester

ART 383—Photographic Design II	3
ART 551—Printmaking III	3
ART 364—Modern and Contemporary	3
IET 351—Graphic Duplication	3
Social science elective (upper division)	3
	15

Second Semester

ART 390—Graphic Design II	3
Social science elective (upper division)	3
Electives	8
HUM—elective (upper division)	3
	17

Communications

The Department of Communications prepares students for professional, business, and educational careers in speech, theatre, radio-television, and journalism. Recognition of the literary, artistic, and psychological elements of these studies enhances the student's appreciation of man's expressive achievements.

Restrictions Applying to All Programs in Communications

A student may credit toward a program of study in the Department of Communications a limited number of hours from any combination of the following courses, each of which

is available in the academic areas of journalism, radio-TV, speech, and theatre:

Communications Cooperative Study 139, 239, 339, 439, 539.

Communications Internships 347, 447.

Special Problems 476.

In each communications program, no more than 9 hours in any combination of the courses listed above may be applied toward an area of concentration, a major, or an associate degree. No more than 6 such hours may be applied toward a minor.

Credit hours earned in these courses which exceed the limits listed above will not apply to program requirements, but may be applied to the minimum requirements for an A.B. or A.A.A. degree.

Area of Concentration in Communications

Core Courses (required of all students taking the area of concentration in communications)

	Sem. Hrs.
JOUR 110—Introduction to Mass Communications	3
JOUR 201—News Writing and Reporting	3
SPCH 100—Voice and Articulation	3
SPCH 370—Business and Professional Speech	3
R-TV 155—Broadcast Performance	3
R-TV 240—Writing for Broadcast	3
THEA 100—Fundamentals of the Theatre	3
THEA 200—Introduction to Dramatic Literature	3
	24

Specific Requirements—Emphasis in Journalism (non-teaching)

	Sem. Hrs.
JOUR 204—Copyreading and Editing	3
JOUR 285—Introduction to Photojournalism	3
JOUR 301—Advanced News Writing and Reporting	3
JOUR 364—Feature Writing	3
OR	
JOUR 383—Principles of Advertising	3
JOUR—electives	8
COMM—electives	4
	24

Specific Requirements—Emphasis in Radio-Television (non-teaching)

R-TV 250—Audio Production Direction	4
R-TV 340—Video Production and Direction I	3
R-TV 344—Broadcast News and Public Affairs	3
OR	
R-TV 450—Broadcast Management	3
R-TV electives	11
COMM—electives	3
	24

Specific Requirements—Emphasis in Speech (non-teaching)

SPCH 110—Basic Speech	3
SPCH 200—Oral Interpretation	3
SPCH 382—Argumentation and Debate	3
SPCH 383—Group Discussion	3
SPCH 385—Persuasion	3
SPCH electives	6
COMM electives	6
	27

Specific Requirements—Emphasis in Theatre (non-teaching)

THEA 210—Technical Production	3
THEA 284—Acting Techniques	3
THEA 320—Scenographic and Drawing Techniques	3
THEA 322—Scene Design	3
THEA 354—Theatre History	3
THEA 380—Play Directing	3
COMM electives	4
	25

NOTE: Total in student's program will be 24 hours of core courses plus total hours in the specialty.

Journalism**Requirements for a Major,
News-Editorial Emphasis**

	Sem. Hrs.
JOUR 110—Introduction to Mass Communications	3
JOUR 201—News Writing and Reporting	3
JOUR 204—Copyreading and Editing	3
JOUR 285—Introduction to Photojournalism	3
JOUR 301—Advanced News Writing	3
JOUR 304—Newspaper Production	3
OR	
JOUR 305—Typography and Design	3
JOUR 465—Editorial Writing	3
JOUR 505—Law and Ethics of Press	3
COMM 347 or 447—Internship	
OR	
COMM 139, 239, 339, 439, or 539—Cooperative Study	3
JOUR electives	3
	30

For a Major, Teaching Emphasis

	Sem. Hrs.
JOUR 110—Introduction to Mass Communications	3
JOUR 201—News Writing and Reporting	3
JOUR 204—Copyreading and Editing	3
JOUR 285—Introduction to Photojournalism	3
JOUR 304—Newspaper Production	3
OR	
JOUR 305—Newspaper Typography and Design	3
JOUR 382—Principles of Public Relations	3
JOUR 383—Principles of Advertising	3
JOUR 465—Editorial Writing	3
JOUR 504—School Publications	3
JOUR 505—Law and Ethics of Press	3
COMM 347 or 447—Internship	
OR	
COMM 139, 239, 339, 439, or 539—Cooperative Study	1
	31

For a Major, Advertising-Public Relations Emphasis

	Sem. Hrs.
JOUR 110—Introduction to Mass Communications	3
JOUR 201—News Writing and Reporting	3
JOUR 204—Copyreading and Editing	3
JOUR 285—Introduction to Photojournalism	3
JOUR 382—Principles of Public Relations	3
JOUR 383—Principles of Advertising	3
JOUR 505—Law and Ethics of the Press	3
COMM 347 or 447—Internship	
OR	
COMM 139, 239, 339, 439, or 539—Cooperative Study	3
Electives to be chosen from a list below	6
	30

R-TV 240—Writing for Broadcast
 JOUR 304—Newspaper Production
 JOUR 305—Typography and Design
 JOUR 482—Public Relations Practices
 JOUR 483—Advertising Design
 JOUR 565—Public Opinion and News Media
 SPCH 567—Organizational Communications
 JOUR 583—Advertising Copy Writing
 JOUR 584—Psychology of Advertising

For a Major, Photojournalism Emphasis

	Sem. Hrs.
JOUR 110—Introduction to Mass Communications	3
JOUR 201—News Writing and Reporting	3
JOUR 204—Copyreading and Editing	3
JOUR 285—Introduction to Photojournalism	3
JOUR 305—Newspaper Typography and Design	3
JOUR 386—Photo Essay and Editing	3
JOUR 387—Advanced Photojournalism	3
JOUR 505—Law and Ethics of the Press	3
ART 283—Photographic Design I	3
COMM 347 or 447—Internship	
OR	
COMM 139, 239, 339, 439, or 539—Cooperative Study	1
JOUR electives	2
	30

For a Major, Community Newspaper Emphasis

	Sem. Hrs.
JOUR 110—Introduction to Mass Communications	3
JOUR 201—News Writing and Reporting	3
JOUR 204—Copyreading and Editing	3
JOUR 285—Introduction to Photojournalism	3
JOUR 301—Advanced News Writing	3
OR	
JOUR 364—Feature Writing	3
JOUR 304—Newspaper Production	3
JOUR 483—Advertising Design	3
JOUR 506—Community Newspapering	3
COMM 347 or COMM 447, Internship. Minimum 1 hour in each of three of these areas: reporting, photography, advertising, newspaper production	3
JOUR 368—Sports Writing	3
OR	
JOUR 387—Advanced Photojournalism	3
JOUR 465—Editorial Writing	3
OR	
JOUR 505—Law and Ethics of the Press	3
HIS 142—Introduction to Recent American History	3
OR	
MNGT 310—Small Business Organization	3
OR	
GOVT 242—State and Local Government	3
	36

For a Minor, News-Editorial Emphasis

JOUR 110—Introduction to Mass Communications	3
JOUR 201—News Writing and Reporting	3
JOUR 204—Copyreading and Editing	3
JOUR 285—Introduction to Photojournalism	3
JOUR 301—Advanced News Writing	3
JOUR 465—Editorial Writing	3
JOUR 505—Law and Ethics of Press	3
COMM 347 or 447—Internship	1
	22

For a Minor, Teaching Emphasis

JOUR 110—Introduction to Mass Communications	3
JOUR 201—News Writing and Reporting	3
JOUR 204—Copyreading and Editing	3
JOUR 285—Introduction to Photojournalism	3
JOUR 465—Editorial Writing	3
JOUR 504—School Publications	3
COMM 347 or 447—Internship	1
JOUR electives	2
	21

For a Minor, Advertising-Public Relations

JOUR 110—Introduction to Mass Communications	3
JOUR 201—News Writing and Reporting	3
JOUR 204—Copyreading and Editing	3
JOUR 285—Introduction to Photojournalism	3
JOUR 382—Principles of Public Relations	3
JOUR 383—Principles of Advertising	3
COMM 347 or 447—Internship	
OR	
COMM 139, 239, 339, 439, or 539—Cooperative Study	1
Electives to be chosen from list below	3
	22

R-TV 240—Writing for Broadcast
 JOUR 482—Public Relations Practices
 JOUR 483—Advertising Design
 JOUR 565—Public Opinion and News Media
 JOUR 583—Advertising Copy Writing
 JOUR 584—Psychology of Advertising

For a Minor, Photojournalism Emphasis

JOUR 110—Introduction to Mass Communication	3
JOUR 201—News Writing and Reporting	3
JOUR 204—Copyreading and Editing	3
JOUR 285—Introduction to Photojournalism	3
JOUR 386—Photo Essay and Editing	3
JOUR 387—Advanced Photojournalism	3
COMM 347 or 447—Internship	
OR	
COMM 139, 239, 339, 439, or 539—Cooperative Study	1
JOUR—electives	5
	24

For a Minor, Community Newspaper Emphasis

	Sem. Hrs.
JOUR 110—Introduction to Mass Communications	3
JOUR 201—News Writing and Reporting	3
JOUR 204—Copyreading and Editing	3
JOUR 285—Introduction to Photojournalism	3
JOUR 301—Advanced Newswriting	3
JOUR 304—Newspaper Production	3
JOUR 483—Advertising Design	3
JOUR 506—Community Newspapering	3
COMM 347 or 447—Internships—minimum 1 hour each in three of these areas: reporting, photography, advertising newspaper production	1 25

Requirements for Associate of Applied Arts, Journalism

	Sem. Hrs.
JOUR 110—Introduction to Mass Communications	3
JOUR 201—News Writing and Reporting	3
JOUR 204—Copyreading and Editing	3
JOUR 285—Introduction to Photojournalism	3
JOUR 344—Broadcast News and Public Affairs	3
JOUR 383—Principles of Advertising	3
COMM 347 or 447—Internship	
OR	
COMM 139, 239, 339, 439, or 539—Cooperative Study	1
SPCH 370—Business and Professional Speech	3
Approved communications electives	11
ENG 101—Composition I	3
ENG 102—Composition II	3
OADM 111—Beginning Typing (or show proficiency)	3
FNA 160—Appreciation of Fine Arts	3
GEO 211—Economic Geography	3
General education requirement course from catalog list for associate degree, excluding courses listed above	3
Electives	14
	65

Suggested Program

The following program has been devised to help students in selecting courses during a four-year program. This schedule need not be followed specifically, but appropriate substitutions should be made only after careful study of degree requirements and consultation with an academic advisor.

Journalism (with certification)

FRESHMAN YEAR

	First Semester	Sem. Hrs.
*ENG 101 or 103		3
JOUR 110—Introduction to Mass Communications		3
OADM—Typing elective		3
GOVT 141—Government of the United States		3
PHED—activity		1
PSY 154—Introduction to Psychology		3
		16

*Department of Languages and Literature determines which section a student takes.

	Second Semester	Sem. Hrs.
ENG 102 or 192		3
MATH 123 or higher		3
HIS 131 or 141		3
FNA 160—Appreciation of Fine Arts		3
HLTH 150—Personal Health		2
JOUR 201—News Writing and Reporting		3
		17

SOPHOMORE YEAR

	First Semester	Sem. Hrs.
ENG 202, 211, or 212		3
HIS 131 or 141		3
BIO 105 or higher		3
JOUR 204—Copyreading and Editing		3
JOUR 285—Introduction to Photojournalism		3
COMM 347—Internship		1
		16

	Second Semester	Sem. Hrs.
SPCH 370—Business and Professional Speech		3
PHIL 303—Social Ethics		3
EDF 207—Foundations of Education		3
EDF 211—Human Growth and Development		3
Chemistry, geoscience, or physics elective		3
Electives		3
		18

JUNIOR YEAR

	First Semester	Sem. Hrs.
EDF 311—Learning Theories in the Classroom		3
JOUR 304—Newspaper Production		3
JOUR 382—Principles of Public Relations		3
Electives		6
		15

	Second Semester	Sem. Hrs.
EDSE 312—Teaching Skills and Media		3
EDSP 332—Teaching the Exceptional Student		2
JOUR 383—Principles of Advertising		3
JOUR 505—Law and Ethics of Press		3
Electives		6
		17

SENIOR YEAR

	First Semester	Sem. Hrs.
JOUR 504—School Publications (in Summer I)		3
EDSE 415—Teacher in Today's Schools		3
JOUR 465—Editorial Writing		3
Electives		8
		17

	Second Semester	Sem. Hrs.
EDSE 416—Student Teaching		12

Journalism (without certificate)

FRESHMAN YEAR

	First Semester	Sem. Hrs.
*ENG 101 or 103		3
JOUR 110—Introduction to Mass Communications		3
OADM—Typing elective		3
GOVT 141—Government of the United States		3
PHED—activity		1
Elective		3
		16

*Department of Languages and Literature determines which section a student takes.

	Second Semester	Sem. Hrs.
ENG 102 or 192		3
MATH 123 or Higher		3
HIS 131 or 141		3
FNA 160—Appreciation of Fine Arts		3
HLTH 150—Personal Health		2
JOUR 201—News Writing and Reporting		3
		17

SOPHOMORE YEAR

	First Semester	Sem. Hrs.
ENG 202, 211, or 212		3
HIS 131 or 141		3
BIO 105 or higher		3
JOUR 204—Copyreading and Editing		3
COMM 347—Internship		1
Chemistry, geoscience, or physics elective		3
		16

	Second Semester	Sem. Hrs.
JOUR 285—Introduction to Photojournalism		3
SPCH 370—Business and Professional Speech		3
PHIL 303—Social Ethics		3
COMM 347—Internship		1
Electives		7
		17

JUNIOR YEAR

	First Semester	Sem. Hrs.
JOUR electives		12
Electives		3
		15

	Second Semester	Sem. Hrs.
JOUR electives		6
Electives		9
		15

SENIOR YEAR

	First Semester	Sem. Hrs.
JOUR electives		6
JOUR 465—Editorial Writing		3
Electives		7
		16

	Second Semester	Sem. Hrs.
JOUR 505—Law and Ethics of Press		3
JOUR elective		3
Electives		10
		16

Radio-Television

Because typing is very important in broadcasting work, and because it is required in some courses, students in radio-television are encouraged to develop typing skills before entering the program. Some may want to take a typing course during their first semester.

Requirements for a Major (non-teaching)

	Sem. Hrs.
R-TV 150—Intro. to Broadcasting	3
R-TV 151—Intro. to Broadcast Techniques	2
R-TV 240—Writing for Broadcast	3
R-TV 250—Audio Production and Direction	4
R-TV 338—Radio Operating Practices	1
R-TV 340—Video Production and Direction I	3
R-TV 344—Broadcast News and Public Affairs	3
OR	
R-TV 450—Broadcast Management	3
R-TV 459—Broadcast Law and Regulations	3
SPCH 100—Voice and Articulation	3
Electives	11
	36

For a Minor (non-teaching)

R-TV 150—Intro. to Broadcasting	3
R-TV 151—Intro. to Broadcast Techniques	2
R-TV 240—Writing for Broadcast	3
SPCH 100—Voice and Articulation	3
Electives	10
	21

Associate of Applied Arts, Radio and Television Broadcasting

Suggested Program

FRESHMAN YEAR

First Semester

	Sem. Hrs.
SPCH 100—Voice and Articulation	3
R-TV 150—Intro. to Broadcasting	3
R-TV 151—Broadcast Techniques	2
R-TV 240—Writing for Broadcast	3
R-TV 338—Radio Operating Practices	1
ENG 101—Composition I	3
	15

Second Semester

R-TV 250—Audio Production and Direction	4
R-TV 283—Photographic Design	3
JOUR 201—News Writing and Reporting	3
SPCH 110—Basic Speech	3
ENG 102—Composition II	3
OR	
ENG 192—Technical Composition	3
	16

SOPHOMORE YEAR

First Semester

R-TV 340—Video Production and Direction I	3
R-TV 344—Broadcast News and Public Affairs	3
JOUR 382—Principles of Public Relations	2
General electives	6
ENG—Literature 202, 211, 212	3
	17

Second Semester

R-TV—Internship	3
R-TV 450—Broadcast Management	3
R-TV 440—Video Production and Direction II	4
OR	
R-TV 451*—Professional Audio Practices	3
JOUR 383—Principles of Advertising	3
Electives	3
	16
	64

*Since R-TV 440 is a 4-hour course, those who elect to take 451 must take an additional elective hour in R-TV.

Associate of Applied Arts, Broadcast Operations

Suggested Program

FRESHMAN YEAR

First Semester

	Sem. Hrs.
R-TV 150—Intro. to Broadcasting	3
R-TV 151—Intro. to Broadcast Techniques	2
IET 240—Basic Electricity	3
MATH 152—College Algebra	3
SPCH 100—Voice and Articulation	3
ENG 101—Composition I	3
	17

Second Semester

R-TV 250—Audio Production and Direction	4
IET 241—Basic Electronics	3
IET 243—Electric Power	3
MATH 141—Plane Trigonometry	3
ENG 102—Composition II	3
IET 338—Radio Operating Practices	1
	17

SOPHOMORE YEAR

First Semester

R-TV 240—Writing for Broadcast	3
R-TV 320—Broadcast Advertising/Sales	3
R-TV 459—Broadcast Law and Regulation	3
IET 341—Transistors and Semiconductors	3
IET 342—Communications Electronics	3
General education elective	3
	18

Second Semester

R-TV 344—Broadcast News and Public Affairs	3
R-TV 450—Broadcast Management	3
R-TV 340—Video Production and Direction	3
IET 345—Television Electronics	4
IET 346—Transmitter Electronics	4
General education elective	3
	20
	72

Radio-Television Broadcasting (Bachelor's Degree)

Suggested Program

FRESHMAN YEAR

First Semester

	Sem. Hrs.
R-TV 150—Intro. to Broadcasting	3
R-TV 151—Intro. to Broadcast Techniques	2
ENG 101—Composition I	3
OR	
ENG 103—Composition III	3
PHY SCI—100 or higher	3
HLTH 150—Personal Health	2
HUM elective	3
	16

Second Semester

R-TV 240—Writing for Broadcast	3
SPCH 100—Voice and Articulation	3
ENG 102—Composition II	3
OR	
ENG 192—Technical Composition	3
BIO SCI—105 or higher	3
PHED—activity	1
Elective or minor	3
	16

SOPHOMORE YEAR

First Semester

R-TV 250—Audio Production and Direction	4
ENG—Literature 202, 211, or 212	3
MATH 123 or higher	3
SOC SCI elective	3
Elective or minor	3
	16

Second Semester

R-TV 340—Video Production & Direction I	3
Math or science elective	3
SOC SCI elective	3
R-TV 338—Radio Operating Practices	1
SPCH 110—Basic Speech	3
OR	
SPCH 370—Business and Professional Speech	3
Elective or minor	3
	16

JUNIOR YEAR

First Semester

R-TV 320—Broadcast Advertising/Sales	3
R-TV 344—Broadcast News and Public Affairs	3
SOC SCI elective	3
Electives or minor	7
	16

Second Semester

R-TV 440—Video Production and Direction II	4
R-TV 450—Broadcast Management	3
COMM 476—Special Problems	3
Electives or minor	6
	16

SENIOR YEAR

First Semester

R-TV 459—Broadcast Law and Regulation	3
R-TV 550—Problems in Contemporary Broadcasting	3
R-TV 558—Public Broadcasting	3
Electives or minor	7
	16

Second Semester

R-TV 451—Professional Audio Practices	3
R-TV 562—Broadcast Criticism	3
R-TV 582—American Popular Culture and Communications Technology	3
SOC SCI elective	3
Electives or minor	4
	16

Speech and Theatre

Requirements for a Major
in Speech and Theatre (teaching)

Sem. Hrs.

SPCH 100—Voice and Articulation	3
SPCH 110—Basic Speech	3
SPCH 382—Argumentation and Debate	3
OR	
SPCH 383—Group Discussion	3
SPCH 595—Administering the Communications Program	3
THEA 100—Fundamentals of the Theatre	3
THEA 200—Introduction to Dramatic Literature	3
THEA 210—Technical Production	3
THEA 284—Acting Techniques	3
THEA 380—Play Directing	3
Electives in speech and theatre, to be approved by advisor	9
	36

(SPCH 597 is strongly recommended for all majors entering the field of education.)

For a Major in Speech and Theatre (non-teaching)

Sem. Hrs.

SPCH 110—Basic Speech	3
SPCH 382—Argumentation and Debate	3
OR	
SPCH 383—Group Discussion	3
THEA 100—Fundamentals of the Theatre	3
THEA 200—Introduction to Dramatic Literature	3
Electives in speech and theatre, to be approved by advisor	18
	30

For a Major in Speech (teaching)

Sem. Hrs.

SPCH 100—Voice and Articulation	3
SPCH 110—Basic Speech	3
SPCH 200—Oral Interpretation	3
SPCH 220—Introduction to Communication Theory	3
SPCH 382—Argumentation and Debate	3
OR	
SPCH 383—Group Discussion	3
SPCH 385—Persuasion	3
SPCH 595—Administering the Communications Program	3
To be selected with approval of the department	15
	36

(SPCH 597 and THEA 300 are strongly recommended for all majors entering the field of education.)

For a Major in Speech (non-teaching)

Sem. Hrs.

SPCH 100—Voice and Articulation	3
SPCH 110—Basic Speech	3
SPCH 200—Oral Interpretation	3
SPCH 220—Introduction to Communication Theory	3

SPCH 382—Argumentation and Debate	3
OR	
SPCH 383—Group Discussion	3
SPCH 385—Persuasion	3
To be selected with approval of the department	18
	36

(Nine hours of the elective credit can be selected from related areas within the Department of Communications. For those interested in college level teaching, SPCH 595, SPCH 597, and THEA 300 are strongly recommended.)

For a Minor in Speech

Sem. Hrs.

SPCH 100—Voice and Articulation	3
SPCH 110—Basic Speech	3
SPCH 200—Oral Interpretation	3
SPCH 382—Argumentation and Debate	3
OR	
SPCH 383—Group Discussion	3
*SPCH 595—Administering the Communications Program	3
Electives in speech, approved by the advisor	6-9
	21

*Required only for the minors entering the field of education. (SPCH 597 is strongly recommended for all minors entering the field of education.)

For a Minor in Organization Communication

Sem. Hrs.

SPCH 310—Interpersonal Communication	3
SPCH 370—Business and Professional Speech	3
SPCH 567—Organizational Communication	3
ENG—option—one of the following courses:	3
ENG 192—Technical Composition	
ENG 591—Technical Writing I	
ENG 592—Technical Writing II	
Electives chosen from the following list	9
	21

SPCH 210—Listening	3
SPCH 315—Verbal Survival	3
SPCH 383—Group Discussion	3
SPCH 385—Persuasion	3
SPCH 510—Advanced Public Speaking	3
SPCH 570—Parliamentary Procedure	3
SPCH 571—Interviewing	3
OADM 210—Word Processing I	3
OADM 321—Business Communications	3
JOUR 364—Feature Writing	3
ENG—technical writing courses not taken to meet the above requirements	3-6

For a Major in Theatre (non-teaching)

Sem. Hrs.

THEA 100—Fundamentals of the Theatre	3
THEA 200—Introduction to Dramatic Literature	3
THEA 210—Technical Production	3
THEA 284—Acting Techniques	3
THEA 315—Stage Make-up	3
THEA 320—Scenographic and Drawing Techniques	3
THEA 322—Scene Design	3
THEA 354—Theatre History	3
THEA 380—Play Directing	3
SPCH 100—Voice and Articulation I	3
Theatre electives	6
	36

For a Minor in Theatre (teaching and non-teaching)

Sem. Hrs.

THEA 100—Fundamentals of the Theatre	3
THEA 200—Introduction to Dramatic Literature	3
THEA 210—Technical Production	3
THEA 284—Acting Techniques	3
THEA 320—Scenographic and Drawing Techniques	3
THEA 322—Scene Design	3
THEA 380—Play Directing	3
	21

Suggested Programs

The following programs have been devised to help students in selecting their courses and planning their schedules. These suggested schedules need not be followed specifically from semester to semester, but close adherence to them will aid the student in meeting all requirements.

Bachelor of Arts with a Major in Speech with a High School Teaching Degree

FRESHMAN YEAR

First Semester		Sem. Hrs.
SPCH 100—Voice and Articulation		3
*ENG 101 or 103		3
BIOL 105 or higher		3
HLTH 150 (2 hrs.) and P.E. activity (1 hr.)		3
Social and behavioral science (HIST 131, 132, 141, 142, or ECON 101, 201)		3
		15
Second Semester		
SPCH 110—Basic Speech		3
*ENG 102 or 192		3
SCI 103		3
PSY 154		3
Elective or minor		5
		17

SOPHOMORE YEAR

First Semester		
SPCH 200—Oral Interpretation	3	
SPCH 220—Introduction to Communication Theory (alternate years)	3	
ENG—literature	3	
GOVT 141, 242, 310, or GEO 100, 211, 300	3	
EDF 207—Foundations of Education	3	
MATH 123 or higher	3	
	18	
Second Semester		
SPCH 210—Listening	3	
Social and behavioral science elective	3	
Natural and mathematical science, or PHIL 200, 303 elective	3	
EDSE 209—Foundations of Secondary Education	2	
Elective or minor	4	
EDF 211—Human Growth and Development	3	
	18	

JUNIOR YEAR

First Semester		
SPCH 382—Argumentation and Debate (spring—alternate years)	3	
OR		
SPCH 383—Group Discussion (fall—alternate years)		
EDF 311—Learning Theories in the Classroom	3	
EDSE 312—Teaching Skills and Media	3	
SPCH 595—Administering the Communication Arts Program (fall—alternate years)	3	
Elective or minor	6	
	18	
Second Semester		
SPCH 385—Persuasion	3	
Advanced speech elective	3	
EDSP 332—Teaching the Exceptional Student	2	
Elective or minor	7	
	15	

SENIOR YEAR

First Semester	
SPCH 597—Administering and Supervising the Co-Curricular Communication Arts Program	3
SPCH—advanced speech elective	6
EDSE 415—Teacher in Today's Schools	3
COMM or HUM option (FNA 160, foreign language, ART 263, 264, MUSH 161, 162, 261, 361, or THEA 100 or 110)	3
	15
Second Semester	
EDSE 416—Student Teaching	12
<i>*Advanced placed students scheduled by Department of Languages and Literature.</i>	

*Advanced placed students scheduled by Department of Languages and Literature.

Bachelor of Arts with a Major in Speech with Non-Teaching Degree

FRESHMAN YEAR

First Semester		Sem. Hrs.
SPCH 100—Voice and Articulation	3	3
*ENG 101 or 103		3
BIOL 105 or higher		3
HLTH 203 or 150 and one activity class		3
Social or behavioral science elective (HIST 131, 132, 141, 142, or ECON 101, 201, or 202)		3
		15

Second Semester

SPCH 110—Basic Speech	3
*ENG 102 or 192	3
Chemistry, geoscience, physics, or science 100 or higher	3
SOC 101, 170, 203, 305, 354, or PSY 154	3
Elective or minor	3
	15

SOPHOMORE YEAR

First Semester		
SPCH 200—Oral Interpretation	3	
SPCH 220—Introduction to Communication Theory (fall—alternate years)	3	
ENG—Literature 202, 211, or 212	3	
GOVT 141, 242, 310		
OR		
GEO 100, 211, 241, or 300	3	
Elective or minor	2	
MATH 123 or higher	3	
		17

Second Semester

SPCH 210—Listening	3
Social and behavioral science elective	3
Natural and mathematical science, DATA 201 or PHIL 200, 303, or 306 elective	3
Elective or minor	7
	16

JUNIOR YEAR

First Semester	
SPCH 382—Argumentation and Debate (spring—alternate years)	
OR	
SPCH 383—Group Discussion (fall—alternate years)	3
Elective or minor	5
Communications or humanities option (FNA 160, foreign language, ART 263, 264, MUSH 161, 162, 261, 361, 362, or THEA 100 or 110)	3
SPCH—advanced elective	3
	14
Second Semester	
SPCH 385—Persuasion	3
SPCH—advanced speech elective	3
Elective or minor	9
	15

SENIOR YEAR

First Semester		
SPCH—advanced speech elective	6	
Elective or minor	12	
	18	
Second Semester		
SPCH—advanced speech elective	6	
Elective or minor	12	
	18	

*Advanced placed students scheduled by Department of Languages and Literature.

Speech/Theatre (teaching)

FRESHMAN YEAR

First Semester		Sem. Hrs.
*ENG 101 or 103	.....	3
BIOL 105	.....	3
HLTH 150 (2 hrs.) and P.E. activity (1 hr.)	.....	3
Social or behavioral science elective (HIST 1341, 132, 141, 142, or ECON 101, 201)	.....	3
SPCH 100—Voice and Articulation	.....	3
THEA 100—Fundamentals of the Theatre	.....	3
		18
Second Semester		
*ENG 102 or 192	.....	3
SCI 103	.....	3
PSYCH 154	.....	3
SPCH 100—Basic Speech	.....	3
THEA 210—Technical Production	.....	3
PSY 154—Introduction to Psychology	.....	3
		18

SOPHOMORE YEAR

First Semester	
SPCH 200—Oral Interpretation	3
THEA 200—Introduction to Dramatic Literature	3
GOVT 141, 142, 310, or GEO 100, 211, or 300)	3
MATH 123 or higher	3

*Advanced placed students scheduled by Department of Languages and Literature.

THEA 284—Acting Techniques	3
EDF 207—Foundations of Education	3
	18

Second Semester

ENG—Literature 202, 211, or 212	3
Social and behavioral science elective	3
Natural and mathematical science or PHIL 200, 303	3
EDF 211—Human Growth and Development	3
Elective or minor	3
	15

JUNIOR YEAR

First Semester

COMM or HUM option (FNA 160, foreign languages, ART 263, 264, MUSH 161, 162, 261, 361, 362, or THEA 100 or 110)	3
SPCH 382—Argumentation and Debate (spring—alternate years)	3
OR	
SPCH 383—Group Discussion (fall—alternate years)	3
Elective or minor	6
EDF 311—Learning Theories in the Classroom	3
	15

Second Semester

THEA 380—Play Directing	3
SPCH 597—Administering and Supervising the Co-Curricular Communication Arts Program	3
Elective or minor	6
EDSE 312—Teaching Skills and Media	3
EDSP 332—Teaching the Exceptional Student	2
	17

SENIOR YEAR

First Semester

Electives	9
SPCH 595—Administering the Communications Program (fall—alternate years)	3
EDSE 415—Teacher in Today's Schools	3
	15

Second Semester

EDSE 416—Student Teaching	12
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Speech/Theatre (non-teaching)

FRESHMAN YEAR

First Semester

	Sem. Hrs.
*ENG 101 or 103	3
Physical science, chemistry, geoscience, physics, and science 100 or higher	3
HLTH 203 or 150 and one activity class	3
Elective	3
SPCH 110—Basic Speech	3
THEA 100—Fundamentals of the Theatre	3
	18

Second Semester

ENG 102 or 192	3
BIOL 105 or higher	3
Elective	3
THEA 200—Introduction to Dramatic Literature	3
SOC 101, 170, 203, 305, 354, or PSY 154	3
	15

SOPHOMORE YEAR

First Semester

SPCH 200—Oral Interpretation	3
ENG—Literature 202, 211, or 212	3
MATH 123 or higher	3
GOVT 141, 142, 310, or GEO 100, 211, 241, or 300	3
Elective or minor	3
	15

Second Semester

Social and behavioral science elective	3
Natural or mathematical science, DATA 201, or PHIL 200, 303 or 306 elective	3
Elective or minor	10
	16

JUNIOR YEAR

First Semester

SPCH 382—Argumentation and Debate (spring—alternate years)	3
OR	
SPCH 383—Group Discussion (fall—alternate years)	3
SPCH or THEA advanced electives	6
COMM or HUM option (FNA 160, foreign language, ART 263, 264, MUSH 161, 162, 261, 361, 362, or THEA 100 or 110)	3
Elective	3
	15

Second Semester

SPCH or THEA advanced electives	6
Elective or minor	6
Social or behavioral elective (HIST 131, 132, 141, 142, or ECON 101, 201, or 202)	3
	15

SENIOR YEAR

First Semester

SPCH or THEA advanced electives	3
Elective or minor	15
	18

Second Semester

Elective or minor	16
<i>*Advanced placed students scheduled by Department of Languages and Literature.</i>	

Bachelor of Arts with a Major in Theatre

FRESHMAN YEAR

First Semester

	Sem. Hrs.
THEA 100—Fundamentals of the Theatre	3
SPCH 100—Voice and Articulation	3
*ENG—Composition 101 or 103	3
BIOL 105 or higher	3
HLTH 150 or 203 plus P.E. activity	3
	15

Second Semester

THEA 200—Introduction to Dramatic Literature	3
THEA 210—Technical Production	3
ENG—Composition 102 or 192	3
Chemistry, geoscience, physics, science 100 option	3
History or economics	3
	15

SOPHOMORE YEAR

First Semester

THEA 320—Sceneographic and Drawing Techniques	3
THEA 284—Acting Techniques	3
ENG—Literature 202, 211, or 212	3
Government or geography	3
SPCH 110 or 370	3
MATH 123 or higher	3
	18

Second Semester

THEA 315—Stage Make-up	3
THEA 322—Scene Design	3
Sociology or psychology	3
Data processing or philosophy	3
Electives	6
	18

JUNIOR YEAR

First Semester

THEA 354—Theatre History	3
Minor	9
Communication or humanities option	3
	15

Second Semester

THEA 380—Play Directing	3
THEA—Advanced elective	3
Elective or minor	8
Social or behavioral elective	3
	17

SENIOR YEAR

First Semester

THEA—advanced elective	3
Elective or minor	12
	15

Second Semester

Electives or minor	15
<i>*Advanced placed students scheduled by Department of Languages and Literature.</i>	

Languages and Literature

The Department of Languages and Literature teaches six languages and their literatures: English, French, German, Latin, Russian, and Spanish.

English

The English curriculum has a two-fold purpose. It seeks to make a contribution to the general education of all students by providing them with the study of writing so that they may use their language as effectively and precisely as possible and by introducing them to the sympathetic understanding of literature so that their personal lives will be enriched by literary art. It prepares students for such vocations as teaching, publishing, business, public relations, and for further professional studies.

Requirements

In addition to the requirements listed, a minimum of two semesters (6 hrs.) of a foreign language is required of students completing an area or major in English. Four semesters (12 hrs.) of a foreign language are recommended.

For an Area of Concentration*

	Sem. Hrs.
ENG 101—Composition I	3
ENG 102—Composition II	3
OR	
ENG 192—Technical Composition	3
At least one but no more than two literature courses at 200 level	
At least one course in advanced composition	
At least one course in American literature	
ENG 435—Shakespeare	3
ENG 505—Linguistics: Grammar	3
No more than two literature classes at 300 level	
All remaining (four to eight) electives at 400 and 500 level	
SPCH 100—Voice and Articulation I	3
OR	
SPCH 110—Basic Speech	3
SPCH 200—Oral Interpretation	3
Theatre elective	
JOUR 201—News Writing and Reporting	3
	54

For a Major*

ENG 101—Composition I	3
ENG 102—Composition II	3
OR	
ENG 192—Technical Composition	3
At least one but no more than two literature courses at 200 level	
At least one course in advanced composition	
At least one course in American literature	
ENG 435—Shakespeare	3
ENG 505—Linguistics: Grammar	3
No more than two literature courses at 300 level	
All remaining (two to six) electives at 400 and 500 level	
	36

For a Minor*

ENG 101—Composition I	3
ENG 102—Composition II	3
OR	
ENG 192—Technical Composition	3
At least one but no more than two literature courses at 200 level	
At least one course in advanced composition	
At least one course in American literature	
ENG 505—Linguistics: Grammar	3
No more than one literature course at 300 level	
All remaining (two to four) electives at 400 and 500 level	
	27

*For teacher certification and AREA or MAJOR, one must take as two of the electives ENG 500 and one of the following: 215, 393, 409, 434, 501, 516. MINOR must take as one of the electives ENG 500. Certification requires a course in the teaching of reading; EDSE 576 is recommended.

Suggested Programs

The following programs have been devised to help students in selecting their courses and making their schedules during the freshman and sophomore years. These suggested schedules need not be followed specifically from semester to semester, but close adherence to them will aid the student in meeting all requirements for graduation.

Area of Concentration in English

(Asterisks include requirements for Certification in Secondary Education.)

FRESHMAN YEAR

First Semester

	Sem. Hrs.
ENG 101—Composition I	3
Foreign language	3
Social science	3
Mathematics or science	3
PHED—activity course	1
PSY 154—Introduction to Psychology	3
	16

Second Semester

ENG 102—Composition II	3
OR	
ENG 192—Technical Composition	
HLTH 150—Personal Health	2
Mathematics or science	3
Social science	3
Foreign language	3
*EDF 207—Foundations of Education	3
	17

SOPHOMORE YEAR

First Semester

SPCH 110—Basic Speech	3
OR	
SPCH 370	
Mathematics or science	3
Social science	3
*EDF 211—Human Growth and Development	3
ENG 211—Introduction to World Literature I	3
ENG 231—English Literature to 1750	3
	18

Second Semester

*EDF 311—Learning Theories in the Classroom	3
ENG 232—English Literature since 1750	3
JOUR 201—News Writing and Reporting	3
SPCH 200—Oral Interpretation	3
ENG 215—Structure of English	3
Foreign language	3
	18

Major in English

FRESHMAN YEAR

First Semester

	Sem. Hrs.
ENG 101—Composition I	3
Foreign language	3
Social science	3
Mathematics or science	3
PSY 154—Introduction to Psychology	3
PHED—activity course	1
	16

Second Semester

ENG 102—Composition II	3
OR	
ENG 192—Technical Composition	
Foreign language	3
Mathematics or science	3
Social science	3
HLTH 150—Personal Health	2
	17

SOPHOMORE YEAR

First Semester

ENG 211—Introduction to World Literature I	3
SPCH 110—Basic Speech	3
OR	
SPCH 370—Business and Professional Speech	
Mathematics or science	3
Social science	3
*EDF 211—Human Growth and Development	3
ENG 231—English Literature to 1750	3
	18

Second Semester

ENG 232—English Literature since 1750	3
ENG 215—Structure of English	3
Mathematics or science	3
*EDF 311—Learning Theories in the Classroom	3
Minor electives	6
	18

French

The French curriculum at Morehead State University teaches the language and literature of France, whereby students will perceive areas of thought and action different from their own. More specifically, it surveys French civilization through its literature as a complex development of France's history, geography, fine arts, and political and social institutions. It helps students attain a comfortable proficiency in speaking, reading, and writing French. Finally, it trains prospective teachers in techniques of foreign language teaching.

NOTE: French 202 or the equivalent is prerequisite to all courses numbered 300 or above.

Requirements for a Major in French

	Sem. Hrs.
FRN 101—Beginning French I	3
FRN 102—Beginning French II	3
FRN 201—Intermediate French	3
FRN 202—Conversation and Composition	3
FRN 203—Introduction to France	3
FRN 435—Twentieth Century Literature	3
Approved electives	12
	30

Requirements for a Minor in French

	Sem. Hrs.
FRN 101—Beginning French I	3
FRN 102—Beginning French II	3
FRN 201—Intermediate French	3
FRN 202—Conversation and Composition	3
FRN 203—Introduction to France	3
Approved electives	6
	21

Students with high school credit in French may be placed in a course more advanced than 101 to begin their studies.

Students who expect to teach French should choose FRN 405 as one of their electives.

German

The German program teaches the language and literature of Germany, whereby students will understand cultural points of view different from their own. It surveys German culture as seen through its literature as a complex development of historical, aesthetic, artistic, and social elements. It helps students attain a comfortable proficiency in speaking, reading, and writing German. Finally, it trains prospective teachers in techniques of foreign language teaching.

NOTE: GER 202 or its equivalent is prerequisite to all courses numbered 300 or above.

Requirements for a Minor in German

	Sem. Hrs.
GER 101—Beginning German I	3
GER 102—Beginning German II	3
GER 201—Intermediate German I	3
AND	
GER 202—Intermediate German II	3
OR	
GER 203—Expository German	3
Approved electives	9
	21

Students with high school credit in German may be placed in a course more advanced than 101 to begin their studies.

Students who expect to teach German should choose GER 405 as one of their electives.

Latin

The Latin courses provide students in the arts and sciences with a firm background in classical culture, and students in pre-professional programs with a clear understanding of technical vocabulary.

NOTE: Latin 202 or the equivalent is prerequisite to courses numbered 300 or above.

Students with high school credit in Latin may be placed in a class more advanced than 101 to begin their studies.

Russian

Objectives

1. To develop the ability to speak, read, write, and understand the Russian language.
2. To provide students an introduction to the culture of the Russian-speaking world.
3. To develop a better understanding of Russian society and history through a study of Russian literature.

Spanish

The Spanish curriculum at Morehead State University teaches the language and literature of Spain, whereby students will perceive areas of thought and action different from their own. More specifically, it surveys Spanish civilization through its history, geography, fine arts, and political and social institutions. It helps students attain a comfortable proficiency in speaking, reading, and writing Spanish. Finally, it trains prospective teachers in techniques of foreign language teaching.

NOTE: SPA 202 or the equivalent is prerequisite to courses numbered 300 or above.

Requirements for a Minor in Spanish

	Sem. Hrs.
SPA 101—Beginning Spanish I	3
SPA 102—Beginning Spanish II	3
SPA 201—Intermediate Spanish	3
SPA 202—Advanced Conversation	3
SPA 301—Spanish Literature	3
SPA 302—Spanish American Literature	3
Approved electives	3
	21

Students with high school credit in Spanish may be placed in a course more advanced than 101 to begin their studies.

It is strongly recommended that Spanish be started in the freshman year and that the courses be taken without interruption.

Students who expect to teach Spanish should choose SPA 405 as one of their electives.

Music

The Department of Music offers a Bachelor of Music Education degree for those preparing to teach music; a Bachelor of Music degree for those planning careers as performers, theorists, or composers; and a major and minor within the Bachelor of Arts curriculum. Musical training and performance opportunities are also provided for students who are not planning musical careers.

Requirements for the Bachelor of Music Education

This program is designed for students who are planning for careers as music teachers in the public schools. It includes the requirements for a twelve-grade music certificate in either vocal or instrumental music.

	Sem. Hrs.
1. APPLIED MUSIC	31-33
Principal applied area	14
Ensembles, at least two vocal	7-9
*Class Piano	4
Class voice and instruments	6
2. *MUSIC THEORY	16
Music Theory I-IV	10
Music Reading I-III	6
3. MUSIC HISTORY AND LITERATURE	10
Literature of Music I-II	4
History of Music I-II	6

*Exemption or advanced placement possible.

4. CONDUCTING	4
Basic Conducting	2
Choral Conducting	
OR	
Instrumental Conducting	2
5. MUSIC EDUCATION	6
Introduction to Music Education	1
Elementary Materials and Methods	3
Vocal or Instrumental Materials and Methods	2
	60-69

For the Bachelor of Music

This program is designed for students who are planning for professional careers in music either as performers or as private teachers. It does not meet the requirements for certification to teach in the public schools.

	Sem. Hrs.
1. MUSIC THEORY	18
Music Theory I-IV	10
Music Reading I-III	6
Form Analysis	2
2. MUSIC HISTORY AND LITERATURE	10
Literature of Music I-II	4
History of Music I-II	6
3. ENSEMBLES	8
4. CONDUCTING	4
Basic Conducting	2
Instrumental or Choral Conducting	2

NOTE: Jazz and studio music students should take basic conducting. To complete their conducting requirement, they will take Rehearsal Techniques for Jazz Ensembles (MUS 473).

In addition to the above courses, each Bachelor of Music degree student must complete the requirements for one of the following specializations:

1. VOICE	
Private Voice	19
Class Voice	1
Junior Recital	2
Senior Recital	3
Class and/or Private Piano	6
Languages (a minimum of six semester hours in each of two languages)	12
2. PIANO	
Private Piano	19
Private Organ and/or Harpsichord	7
Junior Recital	2
Senior Recital	3
Class Voice	1
Piano Literature	3
Piano Pedagogy	2
Electives	3
3. ORGAN OR HARPSICHORD	
Private Organ or Harpsichord	19
Class or Private Piano	7
Junior Recital	2
Senior Recital	3
Class Voice	1
Piano Pedagogy	2
Piano Literature	3
Electives	3
4. STRINGS	
Private Strings	19
Class Piano and/or Private Piano	7
Junior Recital	2
Senior Recital	3
Electives	8
Class Voice	1
5. WIND AND PERCUSSION INSTRUMENTS	
Private Lessons in Major Instrument	19
Junior Recital	2
Senior Recital	3
Class Piano and/or Private Piano	7
Class Voice	1
Arranging	4
Music electives	4
6. THEORY/COMPOSITION	
Composition	12
Arranging	4
Counterpoint	2
Recital of Original Compositions	3
Class and/or Private Keyboard	6
Electives	6
Private Lessons in Major Instrument or Voice	7

7. JAZZ AND STUDIO MUSIC	
Private Applied Music	12
Junior Recital	2
Senior Recital	3
Jazz Keyboard	2
Class Piano and/or Jazz Keyboard	4
Jazz History and Literature	3
Arranging for Jazz Ensembles	4
Studio Improvisation	7
Music electives	3
	80

For a Major (Bachelor of Arts Degree)

This program provides for the study of music within a liberal arts curriculum. Emphasis is upon the study and performance of musical literature. It is suitable for preparing students for careers in music other than performance and teaching music in the public schools.

Applied Music	22
Private Lessons	14
Ensembles	4
Class or Private Piano	4
Music Theory	16
Music Theory I-IV	10
Music Reading I-III	6
Music History and Literature	10
Literature of Music I and II	4
History of Music I and II	6
	48

For a Minor

Applied Music	14
Private Lessons	8
Ensembles	4
Class or Private Piano	2
Music Theory	9
Music Theory I and II	6
Music Reading I and II	3
Music Literature I and II	4
	27

Suggested Programs

The following programs have been devised to help students in selecting their courses during their first two years of study. These suggested schedules need not be followed specifically, but substitutions should be made only after careful study of degree requirements has been made.

Bachelor of Music Education—Instrumental

FRESHMAN YEAR

	First Semester	Sem. Hrs.
ENG 101—Composition I		3
PSY 154—Life-Oriented General Psychology		3
General education elective		3
MUST 131—Music Theory I		3
MUST 133—Music Reading I		1
MUSG 123—Class Piano I		1
MUSG 239—Class Voice		1
MUSP—major private applied		2
MUSM 172—Marching Band		1
MUSM 200—Student Recital		0
MUSP 200—Applied Laboratory		0
		18

	Second Semester	Sem. Hrs.
ENG 102—Composition II		3
SPCH 110—Basic Speech		3
PHED—activity course		1
MUST 132—Music Theory II		3
MUST 135—Music Reading II		2
MUSG 124—Class Piano II		1
MUSG—class instrument		1
MUSP—major private applied		2
MUSM—band		1
MUSM 200—Student Recital		0
MUSP 200—Applied Laboratory		0
		17

SOPHOMORE YEAR

First Semester	
General education electives	6
MUST 236—Music Theory III	2
MUST 233—Music Reading III	3
MUSG 223—Class Piano III	1
MUSG 161—Literature of Music I	2
MUSE 230—Introduction to Music Education	1
MUSP—major private applied	2
MUSM 172—Marching Band	1
MUSM 200—Student Recital	0
MUSP 200—Applied Laboratory	0
	18

Second Semester	
MUSH 162—Literature of Music II	2
MUSG—Class instrument	1
HLTH 150—Personal Health	2
General education elective	3
EDSE 207—Foundations of Education	3
MUST 237—Music Theory IV	2
MUSG 224—Class Piano IV	1
MUSP—major private applied	2
MUSM—band	1
MUSM—choral ensemble	1
MUSM 200—Student Recital	0
MUSP 200—Applied Laboratory	0
	18

Bachelor of Music (Piano Specialization)

FRESHMAN YEAR

First Semester		Sem. Hrs.
ENG 101—Composition I	3	3
Physical science elective	3	3
HLTH 150—Personal Health	2	2
MUST 131—Music Theory I	3	3
MUST 133—Music Reading I	1	1
*MUSP 243—Private Piano	3	3
*MUSM 187—Piano Ensemble	1	1
MUSG 239—Class Voice	1	1
MUSM 200—Student Recital	0	0
		17

Second Semester		Sem. Hrs.
ENG 102—Composition II	3	3
Biological science elective	3	3
PHED—activity course	1	1
MUST 132—Music Theory II	3	3
MUST 134—Music Reading II	2	2
*MUSP 243—Private Piano	3	3
*MUSM 188—Piano Ensemble	1	1
MUSM 200—Student Recital	0	0
*MUSP—private organ or harpsichord	1	1
		17

SOPHOMORE YEAR

First Semester		Sem. Hrs.
MUSH 161—Literature of Music I	2	2
MUST 231—Music Theory III	2	2
MUST 233—Music Reading III	3	3
*MUSP 243—Private Piano	3	3
*MUSP—private organ or harpsichord	1	1
*MUSM—piano ensemble	1	1
MUSM 200—Student Recital	0	0
Electives	4	4
		16

Second Semester		Sem. Hrs.
ENG—literature elective	3	3
MUSH 162—Literature of Music II	2	2
MUST—Theory IV	2	2
*MUSP 243—Private Piano	3	3
*MUSP—private organ or harpsichord	1	1
*MUSM—piano ensemble	1	1
MUSM 200—Student Recital	0	0
Elective	3	3
		15

*Points at which substitutions should be made for other specializations.

Change of Program

A student wishing to change from one music curriculum to another, or to make a change of principal applied area, must receive departmental approval to do so. A committee of faculty representing the appropriate specialties will be ap-

pointed to make recommendations to the department head as to the suitability of the change and the applicability of credits already earned toward the new curriculum.

Piano Proficiency

All music students with principal applied areas other than keyboard instruments must complete four semesters of class piano (two semesters for music minors) or demonstrate proficiency by examination. The material for the examination includes the following:

1. Facility in scales, arpeggios, and cadences.
2. Performance of compositions of approximately third grade difficulty from the works of Clementi, Bach, Mozart, Bartok, etc.
3. Sight reading of easy piano music and instrumental and vocal accompaniments.
4. Playing of simple melodies by ear and improvising appropriate harmonizations.

Placement Examinations

Placement examinations and/or auditions are given in music theory, applied music (principal instrument or voice), and piano to all new music students during registration week of the fall and spring semesters. The results are used for advisement as to course and program enrollment.

Music Fees

Each half-hour private lesson per week, per semester	\$30.00
Junior recital (two hours credit)	\$30.00
Senior recital (two hours credit)	\$30.00
Senior recital (three hours credit)	\$60.00
Graduate recital	\$60.00
Composition Recital	\$60.00

NOTE: Under certain conditions, beginning students in applied music may be assigned to an undergraduate assistant for instruction. In this event, the lesson fee is one-half that charged for lessons with members of the music faculty.

Applied Music

Private Applied Music

Each music student is required to designate a principal area of private music study and to enroll for credit in this area each semester except the professional semester. Credit may also be earned in secondary areas. A change in the designated principal area may be made with the approval of the music faculty.

With departmental permission, private instruction may be taken by students not following a music curriculum, in which case the course standards may be different from those expected of music students. Beginning instruction will be handled, whenever possible, as class applied study rather than private study.

Credit allowed for private applied music is variable, depending on the number of lessons per week and the program in which the student is enrolled. In a given area of private study, a student is expected to practice at least one hour per day for each hour of credit being earned.

Recitals

Recitals may be presented for credit by students who have been given approval to do so by the music faculty. Approval should be requested prior to the final private applied music examination preceding the semester in which the recital will be presented. Recital credit may be substituted for or earned in addition to private applied music credit.

Student Recital

Music students are required to register for student recital each semester. Regular attendance at student recital and other music programs presented on campus is expected of music students. Attendance records are kept by the head of the Department of Music.

Ensembles

Each music student is required to participate in an ensemble representing his or her major performing medium each semester of residence except the student teaching semester. Ensemble assignments are determined by the department with consideration given to both student and departmental needs.

Marching band is required each fall semester for instrumental music education degree students whose principal area of private applied is a wind or percussion instrument. Instrumental majors are required to take at least two semesters of vocal ensemble.

Ensembles may be taken with or without credit. A maximum of eight hours of credit in ensembles may be applied toward fulfilling the requirements of music curricula. (Refer to the curricula requirements listed previously.)

Philosophy

The Department of Philosophy serves two basic functions in the programs offered by the university. First, the department offers general education courses which students may select as partial fulfillment of the general education requirements. These courses are designed to increase the scope and depth of the student's understanding of some of man's most basic beliefs. Second, the department offers a minor or major in philosophy and a minor or major in religious studies for those students who have a strong interest in these fields, for those who may want to prepare themselves for graduate work in the subject, and for those who want to acquire a good foundation in philosophy or religious studies to supplement their preparation for graduate study in the professions or other disciplines.

Requirements for a Major in Philosophy

	Sem. Hrs.
PHIL 200—Introduction to Philosophy	3
PHIL 306—Logic	3
PHIL 505—History of Philosophy I	3
PHIL 506—History of Philosophy II	3
Additional credit in philosophy approved by the department	18
Minimum for a major	30

Requirements for a Minor in Philosophy

	Sem. Hrs.
PHIL 200—Introduction to Philosophy	3
PHIL 306—Logic	3
PHIL 505—History of Philosophy I	3
PHIL 506—History of Philosophy II	3
Additional credit in philosophy approved by the department	9
Minimum for a minor	21

Requirements for a Major in Religious Studies

	Sem. Hrs.
REL 221—World Religions I	3
REL 222—World Religions II	3
PHIL 200—Introduction to Philosophy	3
PHIL 307—Philosophy of Religion	3
Additional credit in religious studies approved by the Department of Philosophy	18
Minimum for a major	30

Requirements for a Minor in Religious Studies

	Sem. Hrs.
REL 221—World Religions I	3
REL 222—World Religions II	3
PHIL 200—Introduction to Philosophy	3
PHIL 307—Philosophy of Religion	3
Additional credit in religious studies approved by the Department of Philosophy	9
Minimum for a minor	21

NOTE: Courses which may be selected, with the approval of the Department of Philosophy, to complete the major or minor in religious studies are the following:

	Sem. Hrs.
REL 321—Early and Medieval Christian Thought	3
REL 322—Modern Christian Thought	3
REL 323—Twentieth-Century Christian Thought	3
REL 476—Special Problems	1-3
ENG 325—Religious Literature of the World	3
ENG 367—Old Testament Literature	3
ENG 368—New Testament Literature	3
HIS 332—Christianity and Its World	3
HIS 350—Religion in American History	3

Suggested Programs

The following programs have been devised to help students in selecting and making their schedules during the freshman and sophomore years. These suggested schedules need not be followed specifically from semester to semester, but close adherence to them will aid the student in meeting all requirements for graduation.

Bachelor of Arts Degree with a Major in Philosophy (without a teaching certificate)

FRESHMAN YEAR

	First Semester	Sem. Hrs.
ENG 101—Composition I	3	3
PHIL 200—Introduction to Philosophy	3	3
Physical science elective (SCI 103 recommended)	3	3
Social and behavioral sciences elective	3	3
Elective (foreign language recommended)	3	3
Elective	1	16

	Second Semester	Sem. Hrs.
ENG 102 or 192	3	3
Philosophy elective	3	3
Biological Science 105 or higher	3	3
Social and behavioral sciences elective	3	3
Elective (foreign language recommended)	3	3
Elective	1	16

SOPHOMORE YEAR

	First Semester	Sem. Hrs.
ENG 202, 211, or 212	3	3
Philosophy elective	3	3
Second major or elective	3	3
Social and behavioral sciences elective	3	3
Elective (foreign language recommended)	3	3
Elective	1	16

	Second Semester	Sem. Hrs.
PHIL 306—Logic	3	3
Second major or elective	3	3
MATH 123 or higher	3	3
Speech 110 or 370	3	3
Elective (foreign language recommended)	3	3
Elective	1	16

Provisional High School Certificate with a Major in Philosophy and a Major in a Teaching Subject

FRESHMAN YEAR

	First Semester	Sem. Hrs.
ENG 101—Composition I	3	3
PSY 154—Introduction to Psychology	3	3
Humanities elective	3	3
Physical science elective (SCI 103 recommended)	3	3
Social and behavioral sciences elective	3	3
Elective	1	16

Second Semester	
ENG 102 or 192	3
PHIL 200—Introduction to Philosophy	3
Second major	3
Biological Science 105 or higher	3
Social and behavioral sciences elective	3
Elective	1
	16

SOPHOMORE YEAR

First Semester	
ENG 202, 211, or 212	3
EDF 207—Foundations of Education	3
Philosophy elective	3
Second major	3
Social and behavioral sciences elective	3
Health 150 or 203	3
	18

Second Semester	
PHIL 306—Logic	3
Elective in philosophy	3
Second major	3
MATH 123 or higher	3
Speech 110 or 370	3
EDF 211—Human Growth and Development	3
	18

Provisional High School Certificate with a Minor in Philosophy and a Major in a Teaching Subject

FRESHMAN YEAR

First Semester		Sem. Hrs.
ENG 101—Composition I	3	3
PSY 154—Introduction to Psychology	3	3
Physical science elective (SCI 103 recommended)	3	3
Social and behavioral sciences elective	3	3
Health 150 or 203	3	3
Elective	1	1
		16

Second Semester		Sem. Hrs.
ENG 102 or 192	3	3
PHIL 200—Introduction to Philosophy	3	3
Major	3	3
Biological Science 105 or higher	3	3
Humanities elective	3	3
Elective	1	1
		16

SOPHOMORE YEAR

First Semester		Sem. Hrs.
ENG 202, 211, or 212	3	3
EDF 207—Foundations of Education	3	3
Philosophy elective	3	3
Major	3	3
Speech 110 or 370	3	3
EDF 211—Human Growth and Development	3	3
		18

Second Semester		Sem. Hrs.
PHIL 306—Logic	3	3
Philosophy elective	3	3
Major	3	3
MATH 123 or higher	3	3
Social and behavioral sciences elective	3	3
Elective	1	1
		16

Bachelor of Arts Degree with a Minor in Philosophy (without a teaching certificate)

FRESHMAN YEAR

First Semester		Sem. Hrs.
ENG 101—Composition I	3	3
Humanities elective	3	3
Physical science elective (SCI 103 recommended)	3	3
Social and behavioral sciences elective	3	3
Health 150 or 203	3	3
Elective	1	1
		16

Second Semester		Sem. Hrs.
ENG 102 or 192	3	3
PHIL 200—Introduction to Philosophy	3	3
Major	3	3
Biological Science 105 or higher	3	3
Social and behavioral sciences elective	3	3
Elective	1	1
		16

SOPHOMORE YEAR

First Semester		Sem. Hrs.
ENG 202, 211, or 212	3	3
Philosophy elective	3	3
Major	3	3
MATH 123 or higher	3	3
Social and behavioral sciences elective	3	3
Elective	1	1
		16

Second Semester		Sem. Hrs.
PHIL 306—Logic	3	3
Philosophy elective	3	3
Major	3	3
Math or science elective or Data Processing 201	3	3
Speech 110 or 370	3	3
Elective	1	1
		16

Religious Studies

Bachelor of Arts Degree with a Major in Religious Studies (without a teaching certificate)

FRESHMAN YEAR

First Semester		Sem. Hrs.
ENG 101—Composition I	3	3
REL 221—World Religions I	3	3
Humanities elective	3	3
Physical science elective (SCI 103 recommended)	3	3
Social and behavioral sciences elective	3	3
Elective	1	1
		16

Second Semester		Sem. Hrs.
ENG 102 or 192	3	3
REL 222—World Religions II	3	3
PHIL 200—Introduction to Philosophy	3	3
Biological Science 105 or higher	3	3
Social and behavioral sciences elective	3	3
Elective	1	1
		16

SOPHOMORE YEAR

First Semester		Sem. Hrs.
ENG 202, 211, or 212	3	3
Religious studies elective	3	3
Second major or elective	3	3
MATH 123 or higher	3	3
Social and behavioral sciences elective	3	3
Elective	1	1
		16

Second Semester		Sem. Hrs.
PHIL 307—Philosophy of Religion	3	3
Second major or elective	3	3
Health 150 or 203	3	3
Social and behavioral sciences elective	3	3
Science or mathematics elective	3	3
Elective	1	1
		16

Provisional High School Certificate with a Major in Religious Studies and a Major in a Teaching Subject

FRESHMAN YEAR

First Semester		Sem. Hrs.
ENG 101—Composition I	3	3
REL 221—World Religions I	3	3
Second major	3	3
PSY 154—Introduction to Psychology	3	3
Physical science elective (SCI 103 recommended)	3	3
Elective	1	1
		16

Second Semester		Sem. Hrs.
ENG 102 or 192	3	3
REL 222—World Religions II	3	3
Second major	3	3
PHIL 200—Introduction to Philosophy	3	3
Biological Science 105 or higher	3	3
Elective	1	1
		16

SOPHOMORE YEAR

First Semester	
ENG 202, 211, or 212	3
Religious studies elective	3
Second major	3
EDF 207—Foundations of Education	3
Social and behavioral sciences elective	3
Health 150 or 203	3
	18

Second Semester	
Religious studies elective	3
Second major	3
Humanities elective	3
MATH 123 or higher	3
Speech 110 or 370	3
EDF 211—Human Growth and Development	3
	18

Provisional High School Certificate with a Minor in Religious Studies and a Major in a Teaching Subject

FRESHMAN YEAR

First Semester		Sem. Hrs.
ENG 101—Composition I	3	3
REL 221—World Religions I	3	3
Major	3	3
PSY 154—Introduction to Psychology	3	3
Physical science elective (SCI 103 recommended)	3	3
Elective	1	1
		16

Second Semester		
ENG 102 or 192	3	3
REL 222—World Religions II	3	3
Major	3	3
PHIL 200—Introduction to Philosophy	3	3
Biological Science 105 or higher	3	3
Elective	1	1
		16

SOPHOMORE YEAR

First Semester		
ENG 202, 211, or 212	3	3
Religious studies elective	3	3
Major	3	3
EDF 207—Foundations of Education	3	3
Social and behavioral sciences elective	3	3
Health 150 or 203	3	3
		18

Second Semester		
Religious studies elective	3	3
Major	3	3
Humanities elective	3	3
MATH 123 or higher	3	3
Speech 110 or 370	3	3
EDF 211—Human Growth and Development	3	3
		18

Bachelor of Arts Degree with a Minor in Religious Studies (without a teaching certificate)

FRESHMAN YEAR

First Semester		Sem. Hrs.
ENG 101—Composition I	3	3
REL 221—World Religions I	3	3
Humanities elective	3	3
Physical science elective (SCI 103 recommended)	3	3
Social and behavioral sciences elective	3	3
Elective	1	1
		16

Second Semester		
ENG 102 or 192	3	3
REL 222—World Religions II	3	3
Major	3	3
PHIL 200—Introduction to Philosophy	3	3
Biological Science 105 or higher	3	3
Elective	1	1
		16

SOPHOMORE YEAR

First Semester		
ENG 202, 211, or 212	3	3
Religious studies elective	3	3
Major	3	3
MATH 123 or higher	3	3
Social and behavioral sciences elective	3	3
Elective	1	1
		16

Second Semester		
PHIL 307—Philosophy of Religion	3	3
Major	3	3
Science or mathematics elective	3	3
Social and behavioral sciences elective	3	3
Health 150 or 203	3	3
Elective	1	1
		16

Personal Development Institute

The Personal Development Institute was established to encourage the development of personal values and standards of moral and ethical character in the men and women who enroll. The objectives of the Personal Development Institute are:

1. To develop in those who attain knowledge and skill, certain intangibles such as confidence, poise, personal appearance, and self-assurance.
2. To assist students in a realistic assessment of themselves and their surroundings.
3. To develop in students the correct set of personality traits such as perseverance and dependability to carry them to the successful completion of any endeavor.
4. To assist students in developing attractive voice quality, good speech habits, and the art of conversation.
5. To identify and better understand the forces that affect the personal development potential of adults in today's changing social, economic, and professional climate.

Departments

Biological and Environmental Sciences
Mathematical Sciences
Physical Sciences

Intensive basic courses of study in each major field of science and mathematics, coupled with a broad background in related disciplines, prepare Morehead State University graduates for professional opportunities in graduate schools, professional schools, industry, teaching, research, or related fields. Course offerings range from those meeting the general needs of the non-science oriented student to those satisfying the specialized requirements of the graduate student. Curricula are reviewed and revised periodically to incorporate current technologies. Programs are administered by the Department of Biological and Environmental Sciences, the Department of Mathematical Sciences, and the Department of Physical Sciences.

Baccalaureate degree programs

Biology
Chemistry
Earth Science
Environmental Science
Geology
Mathematics
Medical Technology
Physics

Pre-professional programs

Pre-Dentistry
Pre-Engineering
Pre-Medicine
Pre-Optometry
Pre-Pharmacy
Pre-Physical Therapy
Pre-Chiropractic

Associate degree program

Engineering Science

In addition to the teaching major in biology, chemistry, earth science, or physics, the School of Sciences and Mathematics also offers options for specialization that lead to certification as secondary science teachers. Such certification would also result in a Bachelor of Science degree with an area of concentration in science. The secondary science teaching area curriculum (and other certifiable majors and minors available within the school) can be found at the end of the School of Sciences and Mathematics catalog section.

Morehead State University is affiliated with the Gulf Coast Research Laboratory, Ocean Springs, Mississippi. This affiliation provides undergraduate and graduate studies in marine sciences (MSCI) at an established, well-equipped laboratory located on the Gulf of Mexico. Students electing to study at Gulf Coast Research Laboratory do not pay out-of-state tuition. Courses offered at the Laboratory can be found at the end of the School of Sciences and Mathematics offerings.

Department of Biological and Environmental Sciences

The Department of Biological and Environmental Sciences offers comprehensive major and minor programs designed (1) to provide specialized programs sufficient to produce profes-

sional biologists; (2) to offer progressive programs of study in environmental science, medical technology, pre-dentistry, pre-medicine, pre-physical therapy, pre-pharmacy, and pre-chiropractic medicine; (3) to produce quality teachers; and (4) to support other departments, divisions, and institutional programs by offering a variety of courses essential to general and specialized areas of study.

Biology

In addition to the pre-professional, environmental science, and medical technology programs described later in this section, the Department of Biological and Environmental Sciences also offers a major in biology and an area in secondary science teaching with a biology emphasis (see the curriculum outlined at the end of the Science Education section). The area is designed for teaching only, while the biology major can be taken for teaching or non-teaching purposes. A teaching minor in biology is possible for those students with a teaching major in another science.

Requirements for the non-teaching biology major and the teaching major are identical, except that teaching majors take the professional semester (student teaching) and other preparatory courses instead of various elective courses. Non-teaching majors, in preparing for professional careers in a number of biological fields, complete courses complementary to their individual goals instead of completing the required preservice teaching.

The area in secondary science teaching with a biology option, a viable alternative to the traditional biology teaching major, was instituted in 1981 to recommend teaching candidates for certification in interdisciplinary science, general science, and junior high school science in addition to biology. This area permits the teaching graduate more latitude. Secondary science teaching area candidates must also complete the educational preparatory courses and the professional semester.

The non-teaching biology major prepares graduates for professional school (medicine, dentistry, chiropractic, pharmacy and physical therapy), graduate school, or jobs in a lucrative market place. Graduates with the B.S. degree find employment in laboratories, quality control, governmental services, and industry.

Requirements for a Major in Biology (teaching or non-teaching)

	Sem. Hrs.
BIOL 100—Orientation to Biological and Environmental Sciences Programs 1	1
BIOL 206—Biological Etymology	2
BIOL 208—Invertebrate Zoology	3
BIOL 209—Vertebrate Zoology	3
BIOL 215—General Botany	4
BIOL 304—Genetics	3
BIOL 317—Principles of Microbiology	4
BIOL 337—Comparative Anatomy	4
OR	
BIOL 555—Plant Morphology	3
BIOL 380—Cell Biology	3
BIOL 471—Seminar in Biological Science	1
Biology field course	3
Biology electives (see below)	6
Total hours for a biology major	36

Biology Electives

Students majoring in biology must earn a minimum of 6 semester hours credit from the following:

	Sem. Hrs.
BIOL 318—Local Flora	3
BIOL 319—Immunology and Serology	3
BIOL 320—Basic Microtechniques	2
BIOL 334—Entomology	3
BIOL 336—Pathophysiology	4
BIOL 337—Comparative Anatomy	3
BIOL 338—Developmental Biology	3
BIOL 350—Heredity and Society	3
BIOL 355—Population, Resources, and Environment	3
BIOL 356—Environmental Biology	3
BIOL 357—Environmental Testing Methods	3
BIOL 510—Limnology	3
BIOL 513—Plant Physiology	3
BIOL 514—Plant Pathology	3
BIOL 515—Food Microbiology	3
BIOL 518—Pathogenic Microbiology	3
BIOL 519—Virology	3
BIOL 520—Histology	3
BIOL 525—Animal Physiology	3
BIOL 530—Ichthyology	3
BIOL 531—Herpetology	3
BIOL 535—Mammalogy	3
BIOL 537—Ornithology	3
BIOL 540—General Parasitology	3
BIOL 545—Medical Entomology	3
BIOL 550—Plant Anatomy	3
BIOL 551—Plant Natural History	3
BIOL 552—Animal Natural History	3
BIOL 553—Environmental Education	3
BIOL 555—Plant Morphology	3
BIOL 561—Ecology	3
BIOL 575—Scanning Electron Microscopy	2
BIOL 580—History of Science	3
BIOL 595—Biochemistry I	4
BIOL 596—Biochemistry II	4
*MSCI elective	3

*Three hours of electives from the Gulf Coast Research Laboratory (GCRL), Ocean Springs, Mississippi, may apply towards the biology major. For a complete selection of courses, see the listing outlined at the end of the School of Sciences and Mathematics section. Additional credit may be arranged with other departments and programs. For information, see the Morehead State University on-campus coordinator for GCRL or the department head.

Supplemental Requirements (Biology Major)

	Sem. Hrs.
CHEM 111—Principles of Chemistry I	3
CHEM 111A—Principles of Chemistry I Lab	1
CHEM 112—Principles of Chemistry II	3
CHEM 112A—Principles of Chemistry II Lab	1
PHYS 201—Elementary Physics I	3
PHYS 201A—Elementary Physics I Lab	1
PHYS 202—Elementary Physics II	3
PHYS 202A—Elementary Physics II Lab	1
*GEOS 410—Geological History of Plants and Animals	3
MATH 141—Plane Trigonometry or equivalent	3
MATH 152—College Algebra or equivalent	3
	25

*Pre-medical, pre-dental, and other pre-professional students obtaining a major in biology may substitute PHYS 350 (Nuclear Science) for GEOS 410.

Suggested Partial Curriculum (Biology Major)

FRESHMAN YEAR		
First Semester		Sem. Hrs.
BIOL 100—Orientation to Biological and Environmental Sciences Programs	1	3
BIOL 208—Invertebrate Zoology	3	3
ENG 101—Composition I	3	3
MATH 152—College Algebra or equivalent	3	3
SPCH 110—Basic Speech	3	3
PHED—activity course	1	1
HLTH 150—Personal Health	2	2
		16
Second Semester		
BIOL 209—Vertebrate Zoology	3	3
ENG 102 or 192—Composition II or Technical Composition	3	3
CHEM 111—Principles of Chemistry I	3	3

CHEM 111A—Principles of Chemistry I Lab	1
BIOL 206—Biological Etymology	2
General education elective	3
MATH 141—Plane Trigonometry or equivalent	3
	18

SOPHOMORE YEAR

First Semester	
General education elective	3
CHEM 112—Principles of Chemistry II	3
CHEM 112A—Principles of Chemistry II Lab	1
PHYS 201—Elementary Physics I	3
PHYS 201A—Elementary Physics I Lab	1
ENG—Literature 202, 211, or 212	3
	14

Second Semester	
BIOL 215—General Botany	4
PHYS 202—Elementary Physics II	3
PHYS 202A—Elementary Physics II Lab	1
BIOL 304—Genetics	3
Minor	3
Elective	3
	17

Requirements for a Minor in Biology

	Sem. Hrs.
BIOL 206—Biological Etymology	2
BIOL 208—Invertebrate Zoology	3
BIOL 209—Vertebrate Zoology	3
BIOL 215—General Botany	4
Approved electives in biology	10
Minimum for a minor	22

Supplemental Requirements (Biology Minor)

	Sem. Hrs.
CHEM 101 or 111—Survey or Principles of Chemistry I	3
CHEM 101A or 111A—Survey or Principles of Chemistry I Lab	1
CHEM 102 or 112—Survey or Principles of Chemistry II	3
CHEM 102A or 112A—Survey or Principles of Chemistry II Lab	1
	8

Environmental Science

An environmental science major with four options is offered. The four options are in ecology; geology; social sciences and economics; and chemistry and physics. With careful planning between the student and the advisor, a teaching certificate can be obtained in one of the option fields. The major is primarily designed to produce professionals in a variety of fields, depending upon the option chosen. Private industry, governmental agencies, municipalities, public utilities, and ecological contracting companies are primary sources of employment. Environmental science participates in the Cooperative Field Experiences and Area Health Education System Programs to give students actual work experience before graduation. An environmental science minor is also offered.

Requirements for a Major in Environmental Science (all majors must take the environmental science core)

	Sem. Hrs.
BIOL 100—Orientation to Biological and Environmental Sciences Programs	1
BIOL 355—Population, Resources, Environment	3
BIOL 472—Seminar in Environmental Science	1
BIOL 356—Environmental Biology	3
GEOS 376—Environmental Geology	3
ECON 501—Environmental Economics	3
GOVT 505—Politics of Ecology	3
GEOG 505—Conservation of Natural Resources	3
	20

All environmental science majors are also requested to take certain complementary general education courses to complete university requirements.

Requirements for a Major in Environmental Science with the Ecology Option

	Sem. Hrs.
Environmental science core courses	20
BIOL 208—Invertebrate Zoology	3
BIOL 209—Vertebrate Zoology	3
BIOL 215—General Botany	4
BIOL 357—Environmental Testing Methods	3
BIOL 510—Limnology	3
BIOL 561—Ecology	3
Elective from Biology 318, 334, 530, 531, 535, or 537	3

Supplemental Requirements (Ecology Option)

	Sem. Hrs.
CHEM 111—Principles of Chemistry I	3
CHEM 111A—Principles of Chemistry I Laboratory	1
CHEM 112—Principles of Chemistry II	3
CHEM 112A—Principles of Chemistry II Laboratory	1
GEOS 240—Oceans	3
MATH 353—Statistics	3

Suggested Partial Curriculum (Ecology Option)

FRESHMAN YEAR

	First Semester	Sem. Hrs.
BIOL 100—Orientation to Biological and Environmental Sciences Programs	1	1
BIOL 208—Invertebrate Zoology	3	3
CHEM 111—Principles of Chemistry I	3	3
CHEM 111A—Principles of Chemistry I Lab	1	1
ENG 101—Composition I	3	3
SPCH 110—Basic Speech	3	3
PHED—activity course	1	1
		15

Second Semester

BIOL 209—Vertebrate Zoology	3
CHEM 112—Principles of Chemistry II	3
CHEM 112A—Principles of Chemistry II Lab	1
ENG 192—Technical Composition	3
HLTH 150—Personal Health	2
Elective	3
	15

SOPHOMORE YEAR

	First Semester	Sem. Hrs.
PHIL 303—Social Ethics	3	3
GEOS 376—Environmental Geology	3	3
ENG—Literature 202, 211, or 212	3	3
Minor	3	3
GEN EDUC—electives	6	6
		18

Second Semester

BIOL 215—General Botany	4
BIOL 355—Population, Resources, and Environment	3
GEOS 240—Oceans	3
Minor	3
GEN EDUC—elective	3
	16

Requirements For a Major in Environmental Science with the Geology Option

	Sem. Hrs.
Environmental science core courses	20
GEOS 107—Introduction to Geoscience	3
GEOS 100—Physical Geology	1
GEOS 201—Historical Geology	3
GEOS 240—Oceans	3
GEOS—electives approved by advisor	9

Supplemental Requirements (Geology Option)

	Sem. Hrs.
MATH 353—Statistics	3
BIOL 357—Environmental Testing Methods	3
CHEM 111—Principles of Chemistry I	3
CHEM 111A—Principles of Chemistry I Lab	1
PHYS 201—Elementary Physics I	3
PHYS 201A—Elementary Physics I Lab	1
CHEM 112—Principles of Chemistry II	3
CHEM 112A—Principles of Chemistry II Lab	1
OR	
PHYS 202—Elementary Physics II	3
PHYS 202A—Elementary Physics II Lab	1

Suggested Partial Curriculum (Geology Option)

FRESHMAN YEAR

	First Semester	Sem. Hrs.
BIOL 100—Orientation to Biological and Environmental Sciences Programs	1	1
GEOS 107—Introduction to Geoscience	3	3
GEOS 100—Physical Geology	1	1
CHEM 111—Principles of Chemistry I	3	3
CHEM 111A—Principles of Chemistry I Lab	1	1
ENG 101—Composition I	3	3
SPCH 110—Basic Speech	3	3
PHED—activity course	1	1
		16

Second Semester

GEOS 201—Historical Geology	3
CHEM 112—Principles of Chemistry II	3
CHEM 112A—Principles of Chemistry II Lab	1
OR	
PHYS 201—Elementary Physics I	3
PHYS 201A—Elementary Physics I Lab	1
ENG 192—Technical Composition	3
HLTH 150—Personal Health	2
GEOS 240—Oceans	3
GEN EDUC—elective	3
	18

SOPHOMORE YEAR

	First Semester	Sem. Hrs.
CHEM 112—Principles of Chemistry II and		
CHEM 112A—Principles of Chemistry II Lab		
OR		
PHYS 202—Elementary Physics II	3	3
PHYS 202A—Elementary Physics II Lab	1	1
GEOS 376—Environmental Geology	3	3
ENG—literature elective—202, 211, or 212	3	3
Minor	3	3
GEN EDUC—elective	3	3
		16

Second Semester

BIOL 355—Population, Resources, Environment	3
PHIL 303—Social Ethics	3
GEOS—approved elective	3
Minor	3
GEN EDUC—elective	3
	15

Requirements for a Major in Environmental Science with the Social Sciences and Economics Option

	Sem. Hrs.
Environmental science core courses	20
GEO 211—Economic Geography	3
GEO 390—Weather and Climate	3
ECON 201—Principles of Economics I	3
ECON 541—Public Finance	3
GOVT 370—Pressure Groups and Politics	3
GOVT 540—Public Administration	3
Social sciences and economics electives approved by advisor	12

Supplemental Requirements (Social Sciences and Economics Option)

	Sem. Hrs.
GEOS 240—Oceans	3
BIOL 357—Environmental Testing Methods	3

Suggested Partial Curriculum (Social Sciences and Economics Option)

FRESHMAN YEAR

	First Semester	Sem. Hrs.
BIOL 100—Orientation to Biological and Environmental Sciences Programs	1	1
ENG 101—Composition I	3	3
ECON 201—Principles of Economics I	3	3
GEN EDUC—elective	3	3
MATH—elective	3	3
HLTH 150—Personal Health	2	2
PHED—activity course	1	1
		16

Second Semester

ENG 192—Technical Composition	3
GEO 211—Economic Geography	3
GEOS 240—Oceans	3
SPCH 110—Basic Speech	3
GEN EDUC—elective	3
	15

SOPHOMORE YEAR

First Semester

GEOS 376—Environmental Geology	3
ENG—Literature 202, 211, or 212	3
GEN EDUC—elective	3
Minor	3
Elective	3
	15

Second Semester

BIOL 355—Population, Resources, Environment	3
GEO 390—Weather and Climate	3
GEN EDUC—elective	3
Minor	6
Elective	3
	18

Requirements for a Major in Environmental Science with the Chemistry and Physics Option

Sem. Hrs.

Environmental science core courses	20
CHEM 111—Principles of Chemistry I	3
CHEM 111A—Principles of Chemistry I Lab	1
CHEM 112—Principles of Chemistry II	3
CHEM 112A—Principles of Chemistry II Lab	1
CHEM 223—Quantitative Analysis	4
CHEM 460—Instrumental Analysis	4
PHYS 201—Elementary Physics I	3
PHYS 201A—Elementary Physics I Lab	1
PHYS 202—Elementary Physics II	3
PHYS 202A—Elementary Physics II Lab	1
PHYS 350—Nuclear Science	4
PHYS 361—Fundamentals of Electronics	3

Supplemental Requirements (Chemistry and Physics Option)

Sem. Hrs.

GEOS 240—Oceans	3
MATH 353—Statistics	3
BIOL 357—Environmental Testing Methods	3

Suggested Partial Curriculum (Chemistry and Physics Option)

FRESHMAN YEAR

First Semester

Sem. Hrs.

BIOL 100—Orientation to Biological and Environmental Sciences Programs	1
CHEM 111—Principles of Chemistry I	3
CHEM 111A—Principles of Chemistry I Lab	1
ENG 101—Composition I	3
SPCH 110—Basic Speech	3
GEN EDUC—elective	3
PHED—activity course	1
	15

Second Semester

CHEM 112—Principles of Chemistry II	3
CHEM 112A—Principles of Chemistry II Lab	1
ENG 192—Technical Composition	3
HLTH 150—Personal Health	2
Electives	6
	15

SOPHOMORE YEAR

First Semester

PHYS 201—Elementary Physics I	3
PHYS 201A—Elementary Physics I Lab	1
CHEM 223—Quantitative Analysis	4
ENG—Literature 202, 211, or 212	3
Minor	3
GEN EDUC—elective	3
	17

Second Semester

PHYS 202—Elementary Physics II	3
PHYS 202A—Elementary Physics II Lab	1
GEOS 240—Oceans	3
PHIL 303—Social Ethics	3
BIOL 355—Population, Resources, Environment	3
Minor	3
	16

Requirements For a Minor in Environmental Science

Sem. Hrs.

GEOS 240—Oceans	3
GEOS 376—Environmental Geology	3
BIOL 355—Population, Resources, Environment	3
BIOL 472—Seminar in Environmental Science	1
BIOL 356—Environmental Biology	3
GOVT 505—Politics of Ecology	3
Electives from PHIL 303, MATH 353, BIOL 357, ECON 501, GEO 505 and BIOL 553 (only one course may be chosen from last two listed)	6
	22

Medical Technology

Medical technology is one of the newest and fastest-growing professions associated with modern advances in medical science. The medical technologist performs analytical tests on body fluids, cells, and products. The resulting information is used by the physician in diagnosing disease, selecting and monitoring treatment, and in counseling for prevention of disease.

Personal attributes necessary for success in this profession include aptitude for physical and biological sciences, dependability, a strong sense of responsibility, and capacity to work well under stress.

Approximately two-thirds of all medical technologists are employed in hospital laboratories. Most others are employed in physicians' offices; private laboratories; clinics; the armed forces; city, state, and federal agencies; industrial medical laboratories; pharmaceutical houses; and public and private research programs directed toward combating specific diseases.

Admission to an American Medical Association-approved clinical program of medical technology (see below) requires at least 92 semester hours of academic credit at Morehead State University, including appropriate course work in biology, chemistry, and mathematics. This curriculum culminates in a baccalaureate degree after the clinical year at an accredited school of medical technology has been completed. The professional hospital-based clinical program is 12 months long; it generally follows three academic years at MSU.

MSU is affiliated with the following AMA-approved hospital schools of medical technology:

1. Beckley Appalachian Regional Hospital
Beckley, West Virginia
2. St. Elizabeth Medical Center
Covington, Kentucky
3. Mobile Infirmary
Mobile, Alabama
4. St. Joseph Hospital
Lexington, Kentucky
5. Providence Hospital
Cincinnati, Ohio
6. Cumberland School of Medical Technology
Cookeville, Tennessee
7. Methodist Hospital of Kentucky
Pikeville, Kentucky
8. Lourdes Hospital
Paducah, Kentucky
9. University of Louisville
Louisville, Kentucky

Students, with the assistance of their medical technology coordinator, usually begin to make applications to medical technology schools at the beginning of their junior year. Acceptance by an accredited school of medical technology for clinical study is competitive and is generally based on the applicant's academic record (minimum of 2.5 grade-point average), personal interviews, and letters of recommendation. The final decision for admittance into the program is made by the appropriate school of medical technology. MSU makes every effort to secure each student a position at one of the hospital schools of medical technology.

Most affiliated hospitals charge a nominal fee during the clinical year in order to help defray expenses incurred in providing the students laboratory experience. The hospitals provide the medical technology coordinator with an estimate of expenses, in addition to tuition or fees, the student will likely incur during the clinical year of training. Grants and/or loans (B.E.O.G. and others) are available for eligible students through the university.

Student enrollment at Beckley Appalachian Regional Hospital is limited to a maximum of five qualified MSU students per year. The other hospital schools do not assume any obligation to accept a maximum or minimum number of students each year from MSU. Selection is based on open competition.

Upon completion of the four-year program, students take a certifying examination in medical technology. MSU confers upon successful candidates the Bachelor of Science degree with an area in medical technology.

The medical technology curriculum is flexibly designed. A student deciding, for whatever reason, not to complete the "three plus one" program may still pursue and obtain a bachelor of science degree in biology through continued enrollment and acceptable performance at MSU.

Medical Technology Suggested Curriculum

FRESHMAN YEAR

First Semester	Sem. Hrs.
BIOL 100—Orientation to Biological and Environmental Sciences Programs I	3
ENG 101—Composition I	3
BIOL 208—Invertebrate Zoology	3
CHEM 101 or 111—Survey or Principles of Chemistry I	3
CHEM 101A or 111A—Survey or Principles of Chemistry I Lab	1
MATH 152—College Algebra or equivalent	3
HLTH 150—Personal Health and PHED activity course	OR
HLTH 203—Safety and First Aid	3
	17
Second Semester	
ENG 102 or 192—Composition II	3
BIOL 331—Human Anatomy	3
CHEM 112—Principles of Chemistry I	3
CHEM 112A—Principles of Chemistry I Lab	1
MATH 123—Introduction to Statistics or equivalent	3
BIOL 206—Biological Etymology	2
	15

SOPHOMORE YEAR

First Semester	
BIOL 332—Human Physiology	3
BIOL 333—Human Physiology Lab	1
CHEM 326—Organic Chemistry I	3
CHEM 326A—Organic Chemistry I Lab	1
PSY 154—Introduction to Psychology	3
ENG—Literature 202, 211, or 212	3
GEN EDUC—social and behavioral sciences	3
	17
Second Semester	
Science elective (see recommended electives below)	3
BIOL 317—Principles of Microbiology	4

CHEM 223—Quantitative Analysis	4
GEN EDUC—social and behavioral sciences	3
SPCH 110—Basic Speech	3
	17

JUNIOR YEAR

First Semester	
BIOL 540—General Parasitology	3
BIOL 518—Pathogenic Microbiology	3
CHEM 460—Instrumental Analysis	4
GEN EDUC—communications and humanities electives	3
GEN EDUC—social and behavioral sciences elective	3
	16

Second Semester	
BIOL 319—Immunology and Serology	3
BIOL 304—Genetics	3
BIOL 380—Cell Biology	3
DATA 201—Introduction to Computers	3
General elective	3
	15

Recommended electives related to program:

BIOL 336—Pathophysiology	4
BIOL 520—Histology	3
BIOL 595—Biochemistry I	4
CHEM 327—Organic Chemistry II	3
CHEM 327A—Organic Chemistry II Lab	1
PHYS 202—Elementary Physics II	3
PHYS 202A—Elementary Physics II Lab	1

SENIOR YEAR (Clinical)

All students attending an accredited school of medical technology during their clinical year of training must be enrolled in BIOL 413, 414, 415, and 416, Medical Technology Clinical Practicum, 4 to 14 hours, at Morehead State University during the fall, spring, and summer sessions.

The student will receive a minimum of 36 semester hours of credit upon successfully completing one year of clinical training at an accredited school of medical technology. Credit awarded will be applicable toward a Bachelor of Science degree with an area of concentration in medical technology.

All the following courses, or their equivalents, must be satisfactorily completed (at least a 2.0 or C average) during the hospital-based clinical year in order to receive credit for Biology 413, 414, 415, and 416 and to obtain a recommendation for the medical technology registry:

Immunohematology. Theory and performance of tests related to donor selection, storage of units, blood grouping, Rh titers, compatibility testing, antibody detection and identification, and blood component therapy. 58 hours lecture and 106 hours of laboratory.

Medical Microbiology. Cultural techniques and characteristics, metabolic demands and microscopic study of bacteria from patient cultures and unknowns; identification by culture, chemical, and serological techniques; drug susceptibility testing. Lecture topics include frequently and uncommonly encountered bacteria and viruses. 80 hours lecture and 180 hours laboratory.

Medical Mycology. Cultural characteristics and microscopic study of differentiating morphology are stressed in a workshop atmosphere; participants work on unknowns. Preliminary procedures and identification of tubercular organisms; 30 hours lecture and 33 hours laboratory.

Serology and Immunology. Theory and principles of the various serological tests; methods employed include precipitation, flocculation, hemolysis, and fluorescence. 40 hours lecture and 32 hours laboratory.

Routine Analysis. Chemical and microscopic laboratory methods used to study gastric, cerebrospinal, urine, pleural, and abdominal body fluids; related physiology and disease states. 40 hours lecture and 150 hours laboratory.

Clinical Chemistry. Quantitative chemical analyses performed for various constituents of blood: enzymes, electrolytes, carbohydrates, hormones, lipids, and nitrogen compounds. Precision manual techniques and a wide variety of instrumental methods are utilized; quality control is emphasized; a limited amount of toxicology is included. Lectures on principles of laboratory tests and physiological reactions in addition to correlation of laboratory findings with disease states. 114 lecture and 180 hours laboratory.

Special Topics. A three-part course in (1) orientation, including ethics, professional relationships, the institution and policies, the school program, venipuncture, patient approach, specimen identification, and basic calculation; (2) solutions, essentially a condensed elementary review of quantitative analysis, including gravimetric and volumetric procedures and associated calculations; and (3) management, a four-day workshop designed by the American Management Association to introduce basic management skills. 75 hours lecture, 33 hours laboratory, and 16 hours seminar.

Medical Parasitology. A workshop study of the geographical distribution, laboratory identification, modes of transmission, and effects of parasitic infestation on man. 25 hours lecture and 45 hours laboratory.

Hematology. Physical, chemical, and microscopic procedures are utilized to evaluate the qualitative and quantitative composition of blood and bone marrow. The function of factors governing the clotting mechanism. Advanced hematology emphasizes correlation of laboratory test results and clinical findings. Collection of specimens and patient contacts are made from this area. 99 hours lecture and 180 hours laboratory.

Seminar. Various activities include: patient case studies to correlate laboratory results with disease states; literature search and preparation of review questions with team competition in answering; assigned classroom presentations. Sixteen hours discussion.

Pre-Dentistry

The Council on Dental Education of the American Dental Association has established minimum requirements for admission to dental schools. Basic requirements are built around the successful completion of two full years of work in an accredited liberal arts and sciences college or university. Minimum course requirements include one year of study in each of the areas of English, biology, physics, general chemistry, and at least one semester of organic chemistry. It is important that all science classes include both lecture and laboratory instruction. Dental schools do not encourage students to apply with such minimal preparation, because the selection of applicants is also based on the demonstration of superior qualification in personal maturity and academic competence. Three, and preferably four, years of undergraduate preparation are necessary to provide students with those qualifications that will permit entry into dental schools. Pre-dental students should have a good background in sciences and mathematics beyond the minimum requirements and they should also cultivate interests in literature, music, art, speech, languages, social sciences, and psychology. For purposes of scheduling, course selection, and complete preparation for professional school, the pre-dental student must work closely with the faculty advisor.

A student who follows a program that includes the requirements for graduation and enters dental school at the end of the junior year may, after successfully completing the first year at dental school, transfer credits to Morehead State University and receive the bachelor's degree, provided he or she lacks six hours or fewer general education requirements with not more than one course needed in any one of the four different general education areas.

Pre-Medicine

Most medical schools require a minimum number of specific science courses. Applicants must have completed the following courses prior to entrance: one year each of biology, physics, general chemistry, and organic chemistry. Additional requirements include one year of English and at least one semester of algebra, trigonometry, and psychology. These specific courses and the successful completion of a baccalaureate degree represent basic requirements for entrance to medical schools, and it is highly recommended that these requirements be supplemented by additional study in a variety of subject areas. It is desirable that the pre-medical student take advanced courses in chemistry, mathematics, and biology. It is most important that the pre-medical student balance a scientific education with courses selected from the arts, humanities, and social sciences. For purposes of scheduling, course selection, and complete preparation for professional school, the pre-medical student must work closely with the faculty advisor.

Since specific requirements vary among medical schools, it is essential that the student investigate the requirements of the medical school of his or her choice during the first two years of the preparatory program.

Pre-Medical and Pre-Dental Suggested Curriculum

FRESHMAN YEAR

First Semester

	Sem. Hrs.
BIOL 100—Orientation to Biological and Environmental Sciences Programs	1
BIOL 208—Invertebrate Zoology	3
ENG 101 or 103—Composition I (placement)	3
PHED activity	1
MATH—(placement)	3-4
CHEM 111—Principles of Chemistry I	3
CHEM 111A—Principles of Chemistry I Lab	1
	15-16

Second Semester

BIOL 209—Vertebrate Zoology	3
ENG 102 or 192—Composition II or Technical Composition	3
CHEM 112—Principles of Chemistry II	3
CHEM 112A—Principles of Chemistry II Lab	1
EDEL 110—Developmental Reading	3
MATH—elective	3-4
	16-17

SOPHOMORE YEAR

First Semester

BIOL 338—Developmental Biology	3
CHEM 326—Organic Chemistry I	3
CHEM 326A—Organic Chemistry I Lab	1
SOC SCI elective	3
PHYS 201—Elementary Physics I	3
PHYS 201A—Elementary Physics I Lab	1
ENG—Literature 202, 211, or 212	3
	17

Second Semester

BIOL 206—Biological Etymology	2
BIOL 304—Genetics	3
PHYS 202—Elementary Physics II	3
PHYS 202A—Elementary Physics II Lab	1
CHEM 327—Organic Chemistry II	3
CHEM 327A—Organic Chemistry II Lab	1
GEN EDUC—social and behavioral science elective	3
	16

JUNIOR YEAR

First Semester

BIOL 317—Principles of Microbiology	
OR	
BIOL 380—Cell Biology	3-4
CHEM 223—Quantitative Analysis	4
PSY 154—Introduction to Psychology	3
MATH 175—Analytic Geometry and Calculus I	
OR	
MATH 353—Statistics	3-4
HLTH 150—Personal Health	2
	15-17

Second Semester

BIOL 317—Principles of Microbiology	
OR	
BIOL 380—Cell Biology	3-4
DATA 202—Computer Programming BASIC	3
PHIL—elective (200, 300, 303, or 306)	3
PHYS 350—Nuclear Science	4
SPCH 110—Basic Speech	
OR	
SPCH 370—Business and Professional Speech	3
	16-17

SENIOR YEAR

First Semester

BIO 471—Seminar in Biological Science	1
BIOL 595—Biochemistry I	4
GEN EDUC—social and behavioral sciences elective	3
Advanced science elective (BIOL 520 and 525 suggested)	6
	14

Second Semester

BIOL 337—Comparative Anatomy	3
GEN EDUC—humanities elective	3
BIOL 215—General Botany	4
BIOL field course	3
Approved elective	3
	16

Pre-Pharmacy Program

The schedule below is a suggested program of pre-pharmacy study which will meet the general requirements for most pharmacy schools. It can be modified to satisfy the needs of the individual student.

Admission to a school of pharmacy may be obtained after completion of a two-year pre-pharmacy program, although it often takes three years. Three additional years are required to complete pharmacy school.

Suggested Curriculum (Pre-Pharmacy)

FRESHMAN YEAR

	First Semester	Sem. Hrs.
BIOL 100—Orientation to Biological and Environmental Sciences Programs	1	3
CHEM 111—Principles of Chemistry I	1	3
CHEM 111A—Principles of Chemistry I Lab	1	1
BIOL 208—Invertebrate Zoology	1	3
ENG 101—Composition I	1	3
GEN EDUC—electives	1	6
		17

	Second Semester	Sem. Hrs.
BIOL 209—Vertebrate Zoology	1	3
ENG 102 or 192—Composition II or Technical Composition	1	3
CHEM 112—Principles of Chemistry II	1	3
CHEM 112A—Principles of Chemistry II Lab	1	1
MATH 175—Analytic Geometry and Calculus I	1	4
GEN EDUC—elective	1	3
		17

SOPHOMORE YEAR

	First Semester	Sem. Hrs.
BIOL 317—Principles of Microbiology	1	4
BIOL 206—Biological Etymology	1	2
PHYS 201—Elementary Physics I	1	3
PHYS 201A—Elementary Physics I Lab	1	1
CHEM 326—Organic Chemistry I	1	3
CHEM 326A—Organic Chemistry I Lab	1	1
ECON 201—Principles of Economics I	1	3
		17

	Second Semester	Sem. Hrs.
PHYS 202—Elementary Physics II	1	3
PHYS 202A—Elementary Physics II Lab	1	1
CHEM 327—Organic Chemistry II	1	3
CHEM 327A—Organic Chemistry II Lab	1	1
GEN EDUC—electives	1	9
		17

Pre-Physical Therapy

Students who plan to complete a degree in physical therapy should consult the catalog of the school of physical therapy they plan to attend to be certain that they fulfill the requirements of the chosen school. Most schools of physical therapy require 60 to 65 hours of course work in a pre-physical therapy program.

The schedule below is a suggested curriculum and may be varied according to individual preferences.

Suggested Curriculum (Pre-Physical Therapy)

FRESHMAN YEAR

	First Semester	Sem. Hrs.
BIOL 100—Orientation to Biological and Environmental Sciences Programs	1	3
ENG 101—Composition I	1	3
PSY 154—Introduction to Psychology	1	3
CHEM 111—Principles of Chemistry I	1	3
CHEM 111A—Principles of Chemistry I Lab	1	1
MATH Placement	1	3
BIOL 208—Invertebrate Zoology	1	3
		17

	Second Semester	Sem. Hrs.
ENG 102 or 192—Composition II or Technical Composition	1	3
BIOL 331—Human Anatomy	1	3
CHEM 112—Principles of Chemistry II	1	3

CHEM 112A—Principles of Chemistry II Lab	1
BIOL 209—Vertebrate Zoology	3
MATH 141—Plane Trigonometry OR equivalent	3
	16

SOPHOMORE YEAR

	First Semester	Sem. Hrs.
BIOL 332—Human Physiology	1	3
PSY 156—Life-Span Developmental Psychology	1	3
PHYS 201—Elementary Physics I	1	3
PHYS 201A—Elementary Physics I Lab	1	1
*Electives	1	6
		16

	Second Semester	Sem. Hrs.
BIOL 337—Comparative Anatomy	1	3
PHYS 202—Elementary Physics II	1	3
PHYS 202A—Elementary Physics II Lab	1	1
*Electives	1	9
		16

*It is recommended that electives include courses in etymology, sociology, history, humanities, statistics, and typing.

Pre-Chiropractic

The 1968 General Assembly of the Commonwealth of Kentucky passed legislation (H.B. No. 147) requiring a minimum of 60 semester hours of study in an accredited college or university as prerequisite to any person becoming eligible for licensure to practice any healing art (including chiropractic medicine). A student who desires to pursue this course of study should consult the catalog of the chiropractic school which he or she plans to attend.

Suggested Curriculum (Pre-Chiropractic)

FRESHMAN YEAR

	First Semester	Sem. Hrs.
BIOL 100—Orientation to Biological and Environmental Sciences Programs	1	3
ENG 101—Composition I	1	3
CHEM 111—Principles of Chemistry I	1	3
CHEM 111A—Principles of Chemistry I Lab	1	1
BIOL 208—Invertebrate Zoology	1	3
MATH 152—College Algebra	1	3
PHED—activity course	1	1
HLTH 150—Personal Health	1	2
		17

	Second Semester	Sem. Hrs.
ENG 102 or 192—Composition II OR Technical Composition	1	3
CHEM 112—Principles of Chemistry II	1	3
CHEM 112A—Principles of Chemistry II Lab	1	1
BIOL 209—Vertebrate Zoology	1	3
MATH 141—Plane Trigonometry	1	3
GEN EDUC—elective	1	3
		16

SOPHOMORE YEAR

	First Semester	Sem. Hrs.
ENG—Literature 202, 211, or 212	1	3
PHYS 201—Elementary Physics I	1	3
PHYS 201A—Elementary Physics I Lab	1	1
PSY 154—Introduction to Psychology	1	3
ECON 201—Principles of Economics I	1	3
HIS 131—Introduction to Civilization I	1	3
Elective	1	2
		18

	Second Semester	Sem. Hrs.
GEN EDUC—elective	1	3
PHYS 202—Elementary Physics II	1	3
PHYS 202A—Elementary Physics II Lab	1	1
PSY 590—Abnormal Psychology	1	3
SOC 101—General Sociology	1	3
GOVT 141—Government of United States	1	3
Elective	1	2
		18

Mathematical Sciences

The Department of Mathematical Sciences is committed to the education of students who intend (1) to teach mathematics at any level, (2) to apply mathematics in industry or government, or (3) to use mathematical techniques and concepts in their chosen fields of endeavor.

Statement Regarding Placement in Mathematics

The faculty members in the department recognize that students come to the university with a wide range of skills in mathematics. In order to best select the courses in mathematics, a student should complete the Profile for Placement in Mathematics during an orientation session. The student may then select a course after consulting with a faculty advisor.

The advisor will assist the student in selecting a course which meets any special degree requirements or objectives of the student. It may be necessary for a student to take one or more developmental courses in order to adequately prepare for a required course. However, a student should take an advanced course in mathematics if there is indication of above average preparation or skill in mathematics, as well as the desire to do so.

Before enrolling for a course, a student should make sure that all prerequisites for the course have been successfully completed.

Mathematics and Computer Programming

There are three aspects of computing at the university—business data processing, mathematics and computer programming, and electronics technology. The degree in mathematics and computer programming seeks to prepare students to enter the job market as

- i. Scientific Programmers—persons aware of computing methods, mathematics, statistics, and an applications area. Scientific programmers usually write programs to solve industrial problems. They usually work as a part of a team involved in research or problem solving.
- ii. Systems Programmers—persons aware of mathematics and computing who develop software which manages the operation of a computer. Systems programmers work for computer manufacturers or companies which have large computer facilities.

Students interested in the preceding areas should pursue the degree in mathematics and computer programming listed below. Those interested in data processing in business or the electronics aspect of computers should follow the program of study for the respective area listed elsewhere in this catalog.

Requirements for the Area of Study in Mathematics and Computer Programming

	Sem. Hrs.
MATH 175—Analytic Geometry and Calculus I	4
MATH 252—Boolean Algebra	3
MATH 275—Analytic Geometry and Calculus II	4
MATH 276—Analytic Geometry and Calculus III	4
MATH 301—Elementary Linear Algebra	3
MATH 304—Math Logic and Set Theory	3
MATH 312—Numerical Analysis	3
MATH 353—Statistics	3
MATH 363—Differential Equations	3
DATA 201—Introduction to Computers	3
DATA 202—Computer Programming BASIC	3
DATA 210—Computer Programming ASSEMBLER I	3
DATA 216—Programming in PL/I	3
DATA 260—FORTRAN Programming I	3
DATA 316—Advanced PL/I Programming	3

DATA 320—Computerized Business Systems	3
DATA 526—Data Base Management Systems	3
Electives in physics, electronics, or advanced data processing courses as approved by the head, Department of Mathematical Sciences	9
	63

The student may follow the general outline of courses for a major in mathematics listed below, taking courses in DATA where minor is listed.

Requirements for a Major in Mathematics

	Sem. Hrs.
MATH 175—Analytic Geometry and Calculus I	4
MATH 275—Analytic Geometry and Calculus II	4
MATH 471—Seminar	1
Electives in mathematics above 170 except MATH 231, 232, 252, and 260	7
Electives in mathematics above 300 as approved by the head of the Department of Mathematical Sciences	14
	30
DATA 202—Computer Programming BASIC	3

Suggested Program

The following program outline is intended to help students in arranging their course schedule. Close adherence will assist in meeting requirements for graduation.

FRESHMAN YEAR	First Semester	Sem. Hrs.
ENG 101—Composition I (OR ENG 103)		3
MATH 175—Analytic Geometry and Calculus I		4
DATA 202—Computer Programming BASIC		3
PHED—activity course		1
HLTH 150—Personal Health		2
Biological science elective		3
		16
	Second Semester	
ENG 102—Composition II (OR ENG 192)		3
MATH 275—Analytic Geometry and Calculus II		4
PHED—activity course		1
HIST 131, 132, 141, or 142		3
Physical science elective		3
Minor		3
		16
SOPHOMORE YEAR	First Semester	
MATH 276—Analytic Geometry and Calculus III		
OR		
MATH elective		3-4
MATH 304—Math Logic and Set Theory		3
HUM—literature elective (ENG 202, 211, or 212)		3
SOC 101, 170, 203, or PSY 154		3
Minor		3
		15-16
	Second Semester	
SPCH 110 or 370		3
GOVT 141, 242, or 310		3
MATH—elective		3
Minor		3
General electives		4
		16

Requirements for a Minor in Mathematics

	Sem. Hrs.
MATH 175—Analytic Geometry and Calculus I	4
MATH 275—Analytic Geometry and Calculus II	4
Electives in math above 170 except MATH 231, 232, 252, and 260	7
Department of Mathematical Sciences	6
	21
DATA 202—Computer Programming BASIC	3

Requirements for a Minor in Statistics

A student should consult the head of the Department of Mathematical Sciences for approval of one of the following:

OPTION I	Sem. Hrs.
MATH 123—Introduction to Statistics	3
MATH 132—General Mathematics II	3
MATH 260—Fortran Programming	3
MATH 301—Elementary Linear Algebra	3
MATH 353—Statistics	3
MATH 553—Statistical Methods	3
MATH 555—Nonparametric Statistics	3
	21

OPTION II

MATH 301—Elementary Linear Algebra	3
MATH 312—Numerical Analysis	3
MATH 353—Statistics	3
MATH 519—Probability	3
MATH 520—Mathematical Statistics	3
MATH 553—Statistical Methods	3
MATH 555—Nonparametric Statistics	3
	21

Department of Physical Sciences

The Department of Physical Sciences administers baccalaureate degree programs in chemistry, earth science, geology, and physics. A cooperative dual-degree program in engineering is offered in conjunction with the University of Kentucky and Auburn University. An associate degree program in engineering science and pre-professional programs in engineering and optometry are also available.

The Center for Science Education is housed in the Department of Physical Sciences.

Transfer students who pursue majors or minors offered by the Department of Physical Sciences must complete one-half of the specified number of hours in the major or minor in residence.

Chemistry

Chemistry offers two kinds of majors: the professional major for those students committed to becoming practicing chemists or to attending graduate school, and the conventional major for those wishing to teach in secondary schools or for those who desire strong support in chemistry for other specific pursuits such as medicine.

The chemistry program attempts: (1) to educate students both in chemical theory and in laboratory techniques to the degree required for professional chemists or to support other career objectives; (2) to prepare students to enter graduate school; (3) to prepare chemistry teachers for the public schools; or (4) to offer supportive courses needed by students in other disciplines.

Requirements for a Major in Chemistry (for those students planning to become professional chemists or to attend graduate school)

	Sem. Hrs.
CHEM 111—Principles of Chemistry I	3
CHEM 111A—Principles of Chemistry I Laboratory	1
CHEM 112—Principles of Chemistry II	3
CHEM 112A—Principles of Chemistry II Laboratory	1
CHEM 223—Quantitative Analysis	4
CHEM 326—Organic Chemistry I	3
CHEM 326A—Organic Chemistry I Lab	1
CHEM 327—Organic Chemistry II	3
CHEM 327A—Organic Chemistry II Lab	1
CHEM 328—Organic Chemistry III	3
CHEM 328A—Organic Chemistry III Lab	2
CHEM 350—Inorganic Chemistry	3
CHEM 441—Physical Chemistry I	3
CHEM 442—Physical Chemistry II	4
CHEM 450—Qualitative Organic Analysis	4
CHEM 460—Instrumental Analysis	4
SCI 471—Seminar	1
	44

Supplemental Requirements

	Sem. Hrs.
MATH 175—Analytic Geometry and Calculus I	4
MATH 275—Analytic Geometry and Calculus II	4
MATH 276—Analytic Geometry and Calculus III	4
PHYS 231—Engineering Physics I	4
PHYS 231A—Engineering Physics I Lab	1
PHYS 232—Engineering Physics II	4
PHYS 232A—Engineering Physics II Lab	1

GER 101—Beginning German I	3
GER 102—Beginning German II	3
DATA 202—Computer Programming BASIC	
OR	
DATA 260—Fortran Programming I	3

This curriculum is designed to meet the standards of the American Chemical Society.

Requirements for a Major in Chemistry (for supportive purposes or teacher certification)

32 hrs. in chemistry approved by advisor, including	
CHEM 111, 111A, 112, 112A, 223 or 460, 326, 326A, 441, and SCI 471	32

Requirements for a Minor in Chemistry

21 hrs. in chemistry approved by department head, including CHEM 223 or 460, 326 and 326A, but NOT SCI 471 or 476	21
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Suggested Program

The following program outline is intended to help students in arranging their course schedules. Close adherence will assist in meeting requirements for graduation.

Professional Chemistry Major

FRESHMAN YEAR

	First Semester	Sem. Hrs.
ENG 101—Composition I	3	
GER 101—Beginning German I	3	
CHEM 111—Principles of Chemistry I	3	
CHEM 111A—Principles of Chemistry I Laboratory	1	
MATH 175—Analytic Geometry and Calculus I	4	
PHED—activity course	1	
		15

	Second Semester	Sem. Hrs.
ENG 192—Technical Composition	3	
GER 102—Beginning German II	3	
CHEM 112—Principles of Chemistry II	3	
CHEM 112A—Principles of Chemistry II Laboratory	1	
MATH 275—Analytic Geometry and Calculus II	4	
HLTH 150—Personal Health	2	
		16

SOPHOMORE YEAR

	First Semester	Sem. Hrs.
CHEM 326—Organic Chemistry I	3	
CHEM 326A—Organic Chemistry I Lab	1	
MATH 276—Analytic Geometry and Calculus III	4	
PHYS 231—Engineering Physics I	4	
PHYS 231A—Engineering Physics I Lab	1	
SPCH 110—Basic Speech	3	
		16

	Second Semester	Sem. Hrs.
ENG—literature elective	3	
CHEM 223—Quantitative Analysis	4	
CHEM 327—Organic Chemistry II	3	
CHEM 327A—Organic Chemistry II Laboratory	1	
PHYS 232—Engineering Physics II	4	
PHYS 232A—Engineering Physics II Lab	1	
		16

Geoscience

Kentucky is an important mining state and a significant producer of oil and gas. As such, the attention of its residents has been directed to problems related to the exploration for, and the development and conservation of, earth materials. Interest is further stimulated by the fact that the region abounds in excellent examples of geologic phenomena.

The geoscience program attempts: (1) to train students for careers as professional geologists in industry and county, state, and federal programs; (2) to prepare earth-science teachers for the public schools; (3) to prepare students to enter graduate school; or (4) to offer supportive courses needed by students in other disciplines.

Requirements for a Major in Geology

	Sem. Hrs.
GEOS 100—Physical Geology	1
GEOS 107—Introduction to Geoscience	3
GEOS 201—Historical Geology	3
GEOS 262—Mineralogy	4
GEOS 276—Geologic Methods	3
GEOS 300—Petrology	3
GEOS 315—Stratigraphy and Sedimentation	4
GEOS 325—Structural Geology	3
GEOS 379—Paleontology	4
GEOS—electives approved by advisor	3
SCI 471—Seminar	1
	32

Supplemental Requirements*

	Sem. Hrs.
BIOL 208—Invertebrate Zoology	3
CHEM 111—Principles of Chemistry I	3
CHEM 111A—Principles of Chemistry I Lab	1
CHEM 112—Principles of Chemistry II	3
CHEM 112A—Principles of Chemistry II Lab	1
PHYS 201—Elementary Physics I	3
PHYS 201A—Elementary Physics I Lab	1
PHYS 202—Elementary Physics II	3
PHYS 202A—Elementary Physics II Lab	1
MATH—electives approved by advisor	6-8

Students are also urged to take MATH 175, DATA 202 or 260 and a summer geology field camp.

* However, students who do not plan to pursue advanced degrees may substitute up to 15 semester hours for the supplemental requirements. Substitutions must be approved by advisor.

Requirements for a Minor in Geology

	Sem. Hrs.
GEOS 100—Physical Geology	1
GEOS 107—Introduction to Geoscience	3
GEOS 201—Historical Geology	3
GEOS 250—Minerals and Rocks (or GEOS 262—Mineralogy)	3-4
GEOS 276—Geologic Methods	3
GEOS 410—Geological History of Plants and Animals	3
GEOS—electives approved by department head	5
	21 or 22

Suggested Program

The following program outline is intended to help students in arranging their course schedules. Close adherence will assist in meeting requirements for graduation.

For a Geology Major

FRESHMAN YEAR

First Semester

	Sem. Hrs.
ENG 101—Composition I	3
HLTH 150—Personal Health	2
GEOS 100—Physical Geology	1
GEOS 107—Introduction to Geoscience	3
MATH 152—College Algebra	3
Social science elective	3
PHED—activity course	1
	16

Second Semester

ENG 192—Technical Composition	3
GEOS 201—Historical Geology	3
MATH 141—Plane Trigonometry	3
Humanities elective	3
Social sciences elective	3
	15

SOPHOMORE YEAR

First Semester

CHEM 111—Principles of Chemistry I	3
CHEM 111A—Principles of Chemistry I Lab	1
GEOS 262—Mineralogy I	4
BIOL 208—Invertebrate Zoology	3
Humanities elective (literature)	3
SPCH 110—Basic Speech	3
	17

Second Semester

CHEM 112—Principles of Chemistry II	3
CHEM 112A—Principles of Chemistry II Lab	1
GEOS 325—Structural Geology	3

Minor elective	6
Social science elective	3
	16

Requirements for a Major in Earth Science

	Sem. Hrs.
GEOS 100—Physical Geology	1
GEOS 107—Introduction to Geoscience	3
GEOS 201—Historical Geology	3
GEOS 250—Minerals and Rocks (OR GEOS 262—Mineralogy)	3-4
GEOS 276—Geologic Methods	3
GEOS 410—Geological History of Plants and Animals	3
SCI 200—Descriptive Astronomy	3
SCI 471—Seminar	1
AGR 211—Soils	3
GEO 390—Weather and Climate	3
GEOS—electives approved by advisor	5-6
	32

Students can also follow the above program to gain teacher certification. However, supplemental course work in biology, mathematics, chemistry, and physics is required for certification. Please consult your advisor.

Requirements for a Minor in Earth Science

	Sem. Hrs.
GEOS 100—Physical Geology	1
GEOS 107—Introduction to Geoscience	3
GEOS 201—Historical Geology	3
GEOS 276—Geologic Methods	3
SCI 200—Descriptive Astronomy	3
GEO 390—Weather and Climate	3
Electives approved by advisor	5
	21

Suggested Program

The following program outline is intended to help students in arranging their course schedules. Close adherence will assist in meeting requirements for graduation.

Earth Science Major

FRESHMAN YEAR

First Semester

	Sem. Hrs.
GEOS 100—Physical Geology	1
GEOS 107—Introduction to Geoscience	3
ENG 101—Composition I	3
MATH 152—College Algebra	3
PHYS 201—Elementary Physics I	3
PHYS 201A—Elementary Physics I Lab	1
Social Sciences elective	3
	17

Second Semester

GEOS 201—Historical Geology	3
ENG 192—Technical Composition	3
MATH 141—Plane Trigonometry	3
HLTH 150—Personal Health	2
PHYS 202—Elementary Physics II	3
PHYS 202A—Elementary Physics II Lab	1
PHED—activity course	1
	16

SOPHOMORE YEAR

First Semester

GEOS 262—Mineralogy	4
SCI 200—Descriptive Astronomy	3
BIOL 208—Invertebrate Zoology	3
SPCH 100—Basic Speech	3
Minor elective	3
	16

Second Semester

AGR 211—Soils	3
Literature elective	3
Social sciences elective	3
Minor electives	6
	15

Physics and Engineering Science

Physics is fundamental to the study of the laws which govern the behavior of all nature and hence contributes to the foundations for chemistry, biology, geology, and engineering. Physics provides a complete undergraduate curriculum which is flexible enough to allow students to design programs of study to suit best their career objectives.

The physics program attempts: (1) to provide a complete undergraduate program which has enough flexibility to permit its graduates to pursue careers as professional physicists in industry or in public school teaching; (2) to enable students to pursue graduate degrees in pure and applied physics; or (3) to provide supportive courses for students in other programs such as applied sciences, biology, chemistry, geology, mathematics, and the pre-professional programs.

Requirements for a Major in Physics (for supportive purposes or teacher certification)

	Sem. Hrs.
PHYS 231—Engineering Physics I*	4
PHYS 231A—Engineering Physics I Lab	1
PHYS 232—Engineering Physics II	4
PHYS 232A—Engineering Physics II Lab	1
PHYS 352—Concepts of Modern Physics	3
PHYS—elective approved by advisor	16
SCI 471—Seminar	1
	30

*PHYS 201-201A, 202-202A, and 212 may be substituted for PHYS 231-231A and 232-232A. (Substitution is recommended only to students who decide to major in physics after completing PHYS 201-201A and 202-202A and is not recommended for pre-engineering students.)

The program above is suggested for students interested in physics as a preparation for a broad range of career opportunities in physics, applied mathematics, scientific computer applications, and other non-scientific fields. It is recommended for students interested in graduate studies in physics. With a double major in mathematics it prepares the student for graduate work in applied mathematics.

Requirements for a Major in Physics (with emphasis in engineering or applied physics)

	Sem. Hrs.
PHYS 231—Engineering Physics I	4
PHYS 231A—Engineering Physics I Lab	1
PHYS 232—Engineering Physics II	4
PHYS 232A—Engineering Physics II Lab	1
PHYS 352—Concepts of Modern Physics	3
PHYS electives approved by advisor from PHYS 211, 221, 332, 340, 361, 381, 391, 410, 411, 412, 452, and 493	16
SCI 471—Seminar	1
	30

The program above is suggested for students interested in engineering or industrial physics. Physics majors are prepared for jobs in industrial physics at the B.S. degree level or for graduate engineering programs. Students following this program typically choose to enter graduate degree programs in electrical, mechanical, medical, or computer engineering. The curriculum provides the student with a background in basic physics, mathematics, and computer science which forms the basis of most engineering fields.

Supplemental Requirements

	Sem. Hrs.
CHEM 111—Principles of Chemistry I	3
CHEM 111A—Principles of Chemistry I Lab	1
CHEM 112—Principles of Chemistry II	3
CHEM 112A—Principles of Chemistry II Lab	1
MATH—elective, 300-400 level, approved by advisor	3

Requirements for a Minor in Physics

	Sem. Hrs.
PHYS 201—Elementary Physics I	3
PHYS 201A—Elementary Physics I Laboratory	1
PHYS 202—Elementary Physics II	3
PHYS 202A—Elementary Physics II Laboratory	1
OR	
PHYS 231—Engineering Physics I	4
PHYS 231A—Engineering Physics I Laboratory	1
PHYS 232—Engineering Physics II	4
PHYS 232A—Engineering Physics II Laboratory	1
PLUS	
PHYS 350—Nuclear Science	4
PHYS—electives, 300 or 400 level	7-9
	21

Suggested Program

The following program outline is intended to help students in arranging their course schedules. Close adherence will assist in meeting requirements for graduation.

Physics Major

FRESHMAN YEAR

	First Semester	Sem. Hrs.
CHEM 111—Principles of Chemistry I	3	3
CHEM 111A—Principles of Chemistry I Lab	1	1
MATH 175—Analytic Geometry and Calculus I	4	4
ENG 101—Composition I	3	3
PHED—activity course	1	1
Social sciences elective	3	3
		15

	Second Semester	Sem. Hrs.
CHEM 112—Principles of Chemistry II	3	3
CHEM 112A—Principles of Chemistry II Lab	1	1
MATH 275—Analytic Geometry and Calculus II	4	4
ENG 192—Technical Composition	3	3
SCI 105—Introduction to Biological Science	3	3
Social sciences elective	3	3
		17

SOPHOMORE YEAR

	First Semester	Sem. Hrs.
PHYS 231—Engineering Physics I	4	4
PHYS 231A—Engineering Physics I Lab	1	1
MATH 276—Analytic Geometry and Calculus III	4	4
Literature elective	3	3
SPCH 110—Basic Speech	3	3
		15

	Second Semester	Sem. Hrs.
PHYS 232—Engineering Physics II	4	4
PHYS 232A—Engineering Physics II Lab	1	1
MATH 363—Differential Equations	3	3
HLTH 150—Personal Health	2	2
PHIL 300—Philosophy of Science	3	3
Social sciences elective	3	3
		16

Engineering Science Programs Options

I. Two-Two (Transfer) Program: The student spends two years of study in pre-engineering at Morehead State University. Elective courses are chosen to meet the requirements of the four-year engineering school to which the student plans to transfer to complete a baccalaureate degree in an engineering field.

This program is intended for the engineering student who wishes to complete a Bachelor of Science degree in engineering as quickly as possible. Students can also receive the Associate of Science degree in engineering science.

II. Three-Two (Dual Degree) Program: The student completes three years of study in chemistry, mathematics, and physics at Morehead State University before transferring to the University of Kentucky or Auburn University to complete the final two years of engineering course work in a specific field of engineering. Upon completing work at both schools, the student receives dual degrees: a B.S. degree in physics and mathematics or the Bachelor of University Studies in physical sciences from Morehead State University and a Bachelor of Science degree in engineering from the University of Kentucky or Auburn University. All engineering specialties are available in this program.

This program is designed for the student desiring a stronger mathematics and science background before completing engineering studies. In addition, many potential employers are interested in students with strong liberal arts training to deal with the ethical and social impact of engineering activities.

III. Two-Year Associate of Science Degree in Engineering Science: The student completes the core courses in the

Associate of Science degree program, and elective courses can be chosen from such fields as electronics, mining, machine tool, or power and fluids technology. *At least one-half of the core courses must be completed at Morehead State University.*

The two-year Associate of Science degree in engineering science is designed for students who wish to seek immediate employment as engineering technicians or aides. Such employment may be in a permanent position, or the student may wish to gain engineering employment experience before returning to school to complete a four-year engineering degree.

Suggested Program for Option I

FIRST YEAR

First Semester	Sem. Hrs.
ENG 101—Composition I	3
*MATH 175—Analytic Geometry and Calculus I	4
CHEM 111—Principles of Chemistry I	3
CHEM 111A—Principles of Chemistry I Laboratory	1
PSY 154—Introduction to Psychology	3
GEO 100—Fundamentals of Geography	3
	17

Second Semester

ENG 192—Technical Composition	3
MATH 275—Analytic Geometry and Calculus II	4
CHEM 112—Principles of Chemistry II	3
CHEM 112A—Principles of Chemistry II Laboratory	1
IET 103—Technical Drawing I	3
DATA 260—FORTRAN Programming I	3
	17

SECOND YEAR

First Semester

MATH 276—Analytic Geometry and Calculus III	4
PHYS 231—Engineering Physics I	4
PHYS 231A—Engineering Physics I Lab	1
**ECON 201—Principles of Economics I	3
ENG 202—Introduction to Literature	3
	15

Second Semester

MATH 363—Differential Equations	3
PHYS 232—Engineering Physics II	4
PHYS 232A—Engineering Physics II Lab	1
PHYS 221—Statics	3
ECON 202—Principles of Economics II	3
	14

NOTES:

*Students who have not had one semester of trigonometry in high school may be required to take MATH 141—Trigonometry, before taking MATH 175.

**ECON 201 is a required course for the University of Kentucky mechanical engineering major and not taken for general studies elective credit. ECON 202 is regarded as a general studies elective.

Pre-Optometry

The Pre-Optometry Program is basically a two- to three-year program designed to meet the entrance requirements of most optometry schools. However, many pre-optometry students elect to pursue a four-year degree program in the biological or physical sciences. Before seeking admission to an optometry school, students must take the Optometry College Admission Test. The Commonwealth of Kentucky will pay a portion of the fees for Kentucky residents enrolled at the Southern College of Optometry (Memphis), the University of Alabama Optometry School, or the University of Houston School of Optometry.

Suggested Program

FIRST YEAR

First Semester	Sem. Hrs.
ENG 101—Composition I	3
CHEM 111—Principles of Chemistry I	3
CHEM 111A—Principles of Chemistry I Laboratory	1
MATH 152—College Algebra	3

BIOL 208—Invertebrate Zoology	3
PSY 152—General Psychology	3
	16

Second Semester

ENG 102—Composition II	3
CHEM 112—Principles of Chemistry II	3
CHEM 112A—Principles of Chemistry II Laboratory	1
*MATH 141—Plane Trigonometry	3
BIOL 209—Vertebrate Zoology	3
GOVT 100—Introduction to Government	3
	16

SECOND YEAR

First Semester

SPCH 110—Basic Speech	3
PHYS 201—Elementary Physics I	3
PHYS 201A—Elementary Physics I Laboratory	1
MATH 175—Analytic Geometry and Calculus I	4
CHEM 326—Organic Chemistry I	3
CHEM 326A—Organic Chemistry I Laboratory	1
	15

Second Semester

PHYS 202—Elementary Physics II	3
PHYS 202A—Elementary Physics II Laboratory	1
MATH 275—Analytic Geometry and Calculus II	4
CHEM 327—Organic Chemistry II	3
CHEM 327A—Organic Chemistry II Laboratory	1
BIOL 317—Principles of Microbiology	4
	16

*Not necessary if student is eligible for MATH 175.

Science Education

Many science and non-science majors enrolled at the university have not had ample opportunity to develop an understanding of science, its nature, and its processes. There is a genuine awareness at Morehead State University of the necessity to increase the degree of scientific literacy of each student as science moves to the forefront in everyday life.

Requirements for a Minor in Integrated Science (non-teaching)

	Sem. Hrs.
SCI 103—Introduction to Physical Sciences (or equivalent)	3
BIOL 105—Introduction to Biological Sciences (or equivalent)	3
BIOL 551—Plant Natural History (or equivalent)	3
BIOL 552—Animal Natural History (or equivalent)	3
Electives approved by the coordinator of the science education program	12
	24

Programs Leading to Teacher Certification

Options for Specialization that Lead to Certification as a Secondary Science Teacher Area of Concentration

A student can become certified by completing a Bachelor of Science degree with an area of concentration in science. The student is required to complete the core of courses listed in part A as well as an emphasis in biology, chemistry, earth science, or physics as presented in part B. In addition, the student will be expected to complete the mathematics curriculum listed in part C. The student must also complete the Teacher Education Program discussed elsewhere in this catalog. The student is certified in the emphasis chosen as well as in general science and interdisciplinary sciences. Further certification is obtained by the completion of additional emphases.

The Core (33-35 semester hours)

Biology	Sem. Hrs.
BIOL 208—Invertebrate Zoology	3
BIOL 215—Botany	4
Chemistry	
CHEM 101—Survey of General Chemistry	3
CHEM 101A—Survey of General Chemistry Laboratory	1

CHEM 201—Survey of Organic Chemistry	3
CHEM 201A—Survey of Organic Chemistry Laboratory	1
OR	
CHEM 111—Principles of Chemistry I	3
CHEM 111A—Principles of Chemistry I Laboratory	1
CHEM 112—Principles of Chemistry II	3
CHEM 112A—Principles of Chemistry II Laboratory	1
Earth Science	
GEOS 100—Physical Geology	1
GEOS 107—Introduction to Geoscience	3
GEOS 201—Historical Geology	
OR	
GEOS 410—Geological History of Plants and Animals	3
Physics	
PHYS 201—Elementary Physics I	
PHYS 201A—Elementary Physics I Lab	4-5
OR	
PHYS 231—Engineering Physics I	
PHYS 231A—Engineering Physics I Lab	
PHYS 202—Elementary Physics II	
PHYS 202A—Elementary Physics II Lab	4-5
OR	
PHYS 232—Engineering Physics II	
PHYS 232A—Engineering Physics II Lab	
Science	
SCI 592—Science for the Secondary Teacher	3
	33-35

Choice of Emphasis

Biology (32 sem. hrs.)	Sem. Hrs.
BIOL 100—Orientation to Biological and Environmental Sciences Programs	1
BIOL 206—Biological Etymology	2
BIOL 209—Vertebrate Zoology	3
BIOL 304—Genetics	3
BIOL 317—Principles of Microbiology	4
BIOL 380—Cell Biology	3
BIOL 471—Seminar in Biological Sciences	1
BIOL 561—Ecology	3
Biology electives (300 level or above)	6
Elect one of the following:	
BIOL 337—Comparative Anatomy	3
BIOL 338—Developmental Biology	3
BIOL 550—Plant Anatomy	3
BIOL 555—Plant Morphology	3
Elect one of the following:	
BIOL 513—Plant Physiology	3
BIOL 525—Animal Physiology	3
	32

Chemistry (15 sem. hrs.)

15 additional semester hours in chemistry approved by advisor and department head (cannot include BIOL 595 or SCI 476).

Earth Science (15 sem. hrs.)

15 additional semester hours in geology approved by advisor and department head (cannot include SCI 476).

Physics (15 sem. hrs.)

15 additional semester hours in physics approved by advisor and department head (must include PHYS 350; cannot include SCI 476).

Supplemental requirements in Mathematics

Students who seek certification with an area of concentration in science will be required to complete the following mathematics requirement:

One course from the following:	Sem. Hrs.
MATH 152—College Algebra	3
MATH 173—Pre-Calculus I	3
MATH 175—Analytic Geometry and Calculus I	3-4

Also one course from the following:

MATH 141—Plane Trigonometry	3
MATH 174—Pre-Calculus II	3
MATH 275—Analytic Geometry and Calculus II	4
MATH 353—Statistics	3-4

Teaching Majors

A student can receive certification by completing a Bachelor of Science degree with a major in biology, chemistry, earth science, mathematics, or physics. With the exception of mathematics, certification is no longer granted with a minor in this list of disciplines unless a major in one of

the other natural science disciplines is completed. Further certification can also be obtained through the completion of a second major from the list or through other majors or minors as suggested by an advisor. In addition, the student must complete the requirements listed under the Teacher Education Program as presented under the School of Education section in this catalog.

Biology	Sem. Hrs.
BIOL 100—Orientation to Biological and Environmental Sciences Programs	1
BIOL 206—Biological Etymology	2
BIOL 208—Invertebrate Zoology	3
BIOL 209—Vertebrate Zoology	3
BIOL 215—General Botany	4
BIOL 304—Genetics	3
BIOL 317—Principles of Microbiology	4
BIOL 337—Comparative Anatomy	
OR	
BIOL 555—Plant Morphology	3
BIOL 380—Cell Biology	3
BIOL 471—Seminar in Biological Science	1
Biology field course	3
Approved biology electives	6
	36

In addition, supplemental courses in chemistry, earth science, mathematics, and physics are required for the biology major. Consult your advisor.

Chemistry

Students who wish to become certified in chemistry must complete a minimum of 32 semester hours in chemistry as approved by an advisor including CHEM 111, 111A, 112, 112A, 223 or 460, 326, 326A, 441, and SCI 471.

Earth Science

	Sem. Hrs.
GEOS 100—Physical Geology	1
GEOS 107—Introduction to Geoscience	3
GEOS 201—Historical Geology	3
GEOS 250—Minerals and Rocks (OR GEOS 262—Mineralogy)	3-4
GEOS 276—Geologic Methods	3
GEOS 410—Geological History of Plants & Animals	3
SCI 200—Descriptive Astronomy	3
SCI 471—Seminar	1
AGR 211—Soils	3
GEO 390—Weather and Climate	3
GEOS—electives approved by advisor	5-6
	32

Students who wish to be certified to teach earth science must also complete supplemental courses in biology, chemistry, mathematics, and physics, as approved by an advisor.

Mathematics

	Sem. Hrs.
MATH 175—Analytic Geometry and Calculus I	4
MATH 275—Analytic Geometry and Calculus II	4
MATH 471—Seminar	1
Electives in mathematics above 170, except Math 231, 232, 252, and 260	7
Electives in mathematics above 300 as approved by the head of the Dept. of Mathematical Sciences	14
DATA 202—Computer Programming BASIC	3
	33

Students who major in mathematics must also complete supportive courses in other science disciplines. Consult your advisor.

Physics

	Sem. Hrs.
PHYS 231—Engineering Physics I	4
PHYS 231A—Engineering Physics I Lab	1
PHYS 232—Engineering Physics II	4
PHYS 232A—Engineering Physics II Lab	1
PHYS 332—Electricity and Magnetism	4
PHYS 340—Experimental Physics	3
PHYS 352—Concepts of Modern Physics	3
PHYS 391—Dynamics	3
PHYS 493—Quantum Mechanics	3
SCI 471—Seminar	1
Physics electives, 400 level, approved by advisor	5
	32

Students who seek certification in physics are also required to complete supplemental courses in mathematics. Consult your advisor.

Teaching Minors

A student can receive a certifiable teaching minor in biology, chemistry, earth science, mathematics, and physics. With the exception of mathematics, the minor must be complemented by a major in a natural science. As stated under Area of Concentration and Teaching Majors above, the student must also complete the requirements of the Teacher Education Program listed in the School of Education section of this catalog.

Biology

	Sem. Hrs.
BIOL 206—Biological Etymology	2
BIOL 208—Invertebrate Zoology	3
BIOL 209—Vertebrate Zoology	3
BIOL 215—General Botany	4
BIOL—electives approved by advisor	10
	22

In addition, supplemental courses in chemistry are required. Consult your advisor.

Chemistry

	Sem. Hrs.
CHEM 101—Survey of General Chemistry	3
CHEM 101A—Survey of General Chemistry Laboratory	1
CHEM 201—Survey of Organic Chemistry	3
CHEM 201A—Survey of Organic Chemistry Lab	1
OR	
CHEM 111—Principles of Chemistry I	3
CHEM 111A—Principles of Chemistry I Laboratory	1
CHEM 112—Principles of Chemistry II	3
CHEM 112A—Principles of Chemistry II Laboratory	1
PLUS	
CHEM—electives approved by advisor	15
	23

Earth Science

	Sem. Hrs.
GEOS 100—Physical Geology	1
GEOS 107—Introduction to Geoscience	3
GEOS 201—Historical Geology	
OR	
GEOS 410—Geological History of Plants and Animals	3
GEOS—electives approved by advisor	9
SCI 200—Descriptive Astronomy	3
GEO 390—Weather and Climate	3
	22

Mathematics

	Sem. Hrs.
MATH 175—Analytic Geometry and Calculus I	4
MATH 275—Analytic Geometry and Calculus II	4
MATH—electives above 170 except 231, 232, 252, and 260	7
MATH—electives above 300 approved by department head	6
DATA 202—Computer Programming BASIC	3
	21

Physics

	Sem. Hrs.
PHYS 201—Elementary Physics I	3
PHYS 201A—Elementary Physics I Laboratory	1
PHYS 202—Elementary Physics II	3
PHYS 202A—Elementary Physics II Laboratory	1
OR	
PHYS 231—Engineering Physics I	4
PHYS 231A—Engineering Physics I Lab	1
PHYS 232—Engineering Physics II	4
PHYS 232A—Engineering Physics II Lab	1
PLUS	
PHYS 350—Nuclear Science	4
PHYS—electives approved by advisor	11
	23-25

Departments

Geography
Government and Public Affairs
History
Military Science
Sociology, Social Work, and Corrections

Baccalaureate Degree Programs

Corrections—Area of Concentration
Corrections—Minor
Geography—Major
Geography—Minor
Government—Major
Government—Major with Public Administration Emphasis
Government—Minor
History—Major
History—Minor
Para-Legal Studies—Major
Social Sciences—Area of Concentration
Social Work—Area of Concentration
Sociology—Major
Sociology—Major with a Corrections Emphasis
Sociology—Minor

Associate Degree Programs

Corrections
Social Work

Requirements for an Area of Concentration in the Social Sciences

	Sem. Hrs.
A. A minimum of 18 hrs. in history	18
B. 12 hours each field in any three:	36
Economics	
Geography	
Government and Public Affairs	
Sociology	
C. 6 hrs. in the fourth field	6
	60

	Sem. Hrs.
ECON 201—Principles I	3
ECON 202—Principles II	3
ECON 350—Microeconomic Theory	3
ECON 351—Macroeconomic Theory	3
GEO 100—Fundamentals	3
GEO 211—Economic Geography	3
GEO 300—World Geography	3
GEO—advanced elective	3
GOVT 141—Government of the U.S.	3
GOVT 242—State and Local Government	3
GOVT 330—Parliamentary Democracies	3
GOVT—advanced elective in international governments	3
HIS 131—Introduction to Civilization I	3
HIS 132—Introduction to Civilization II	3
HIS 141—Introduction to Early American History	3
HIS 142—Introduction to Recent American History	3
HIS—advanced electives (3 hrs. must be American)	6
SOC 101—General Sociology	3
SOC 505—Sociological Theory	3
SOC—advanced electives	6

Geography

The Department of Geography offers a well-balanced undergraduate program which includes a 30-semester hour major and a 21-semester hour minor.

Appropriate educational experiences and training are provided to prepare persons for entry into careers in teaching, government service, planning, and resource management.

Requirements for a Major in Geography

	Sem. Hrs.
GEO 100—Fundamentals of Geography	3
GEO 101—Physical Geography	3
GEO 211—Economic Geography	3
GEO 241—United States and Canada	3
GEO—electives in systematic geography	9
GEO—electives in regional geography	9
Minimum for a major	30

Requirements for a Minor in Geography

	Sem. Hrs.
GEO 100—Fundamentals of Geography	3
GEO 101—Physical Geography	3
GEO 211—Economic Geography	3
GEO 241—United States and Canada	3
GEO—Systematic geography elective	3
GEO—electives	6
Minimum for a minor	21

Suggested Sequence of Courses for a Bachelor of Arts Degree in Geography

The following program has been devised to help students in selecting their courses and preparing their schedules. Close adherence to it will aid the student in meeting requirements for graduation.

Major in Geography

FRESHMAN YEAR

	First Semester	Sem. Hrs.
GEO 100—Fundamentals of Geography	3	3
ENG—composition	3	3
PHED—activity course	1	1
SCI—physical science elective	3	3
HIS—general education requirement	3	3
Minor—elective	3	3
		16

	Second Semester	Sem. Hrs.
GEO 101—Physical Geography	3	3
ENG—composition	3	3
General education requirement	3	3
SCI—biological science	3	3
HLTH 150—Personal Health	2	2
Minor—elective	3	3
		17

SOPHOMORE YEAR

	First Semester	Sem. Hrs.
GEO 211—Economic Geography	3	3
ENG—literature elective	3	3
MATH—general education requirement	3	3
Minor—elective	3	3
Sociology general education requirement	3	3
**Electives	2	2
		17

	Second Semester	Sem. Hrs.
GEO 241—United States and Canada	3	3
General education requirements	6	6
Minor—elective	3	3
**Electives	4	4
		16

**Students desiring a teacher's certificate must complete the required courses in professional education and the professional semester. College algebra and trigonometry or statistics are suggested electives for students who plan to pursue a graduate degree in geography.

JUNIOR YEAR

First Semester	
GEO—*Elective in regional geography	3
GEO—*Elective in systematic geography	3
Minor—elective	3
**Electives	7
	16
Second Semester	
GEO—*elective in regional geography	3
GEO—*elective in systematic geography	3
Minor—elective	3
**Electives	7
	16

SENIOR YEAR

First Semester	
GEO—*advanced elective in systematic geography	3
Minor—elective	3
**Electives	10
	16
Second Semester	
GEO—*advanced elective in regional geography	3
**Electives	13
	16

*Electives in systematic and regional geography must be selected with the approval of the student's faculty advisor.

**Students desiring a teacher's certificate must complete the required courses in professional education and the professional semester. College algebra and trigonometry or statistics are suggested electives for students who plan to pursue a graduate degree in geography.

Government and Public Affairs

The Department of Government and Public Affairs offers courses in major areas of study, including American government, state and local government, comparative government, international relations, group dynamics, constitutional law, and public and personnel administration.

Pre-Law Program

The field of government is recommended as desirable training for pre-law students. While there is no officially prescribed pre-law curriculum, most law schools require the bachelor's degree for entrance; therefore it is recommended that preparatory studies be directed toward the goal. All general education requirements should be met, as well as a degree in some particular field.

Preparing for Government Service

Students preparing for government service should pursue the general government major requirements with emphasis in public administration. Those wishing to specialize in public administration should select courses in public administration, finance, and personnel.

Internship programs are available for qualified students desiring to enter governmental service. A structured work-study experience in state and local government is obtained by the participating student. Opportunities are available to gain valuable experience with such public officials as city clerks, mayors, other governmental officers, and county and state agencies.

Requirements for a Major in Government

	Sem. Hrs.
GOVT 141—Government of the United States	3
GOVT 242—State and Local Government	3
GOVT 330—Parliamentary Democracies	3
OR	
GOVT 450—International Relations	
GOVT—elective in international field	3
Approved electives in government	18
Minimum for a major	30

For a Minor in Government

	Sem. Hrs.
GOVT 141—Government of the United States	3
GOVT 242—State and Local Government	3
GOVT 330—Parliamentary Democracies	3
OR	
GOVT 450—International Relations	
GOVT—elective in international field	3
Approved electives in government	9
Minimum for a minor	21

Major in Para-Legal Studies

The para-legal studies program prepares the student to work in a lawyer's office as a legal assistant. The demand for para-legals is growing in business as well as government, and certainly in the public and private practice of law. Under the supervision of a lawyer, the legal assistant performs legal research of various types, interviews clients, performs investigations, takes care of details in probate matters, and does real estate title searches and countless other duties in the law office.

Required Courses

	Sem. Hrs.
GOVT 141—Government of the United States	3
GOVT 242—State and Local Government	3
GOVT 290—Introduction to Paralegalism	3
GOVT 390—Legal Research and Writing	3
GOVT 490—Trial Practice and Preparation	3
GOVT 495—Legal Internship	6
ACCT 387—Income Tax	3
REAL 105—Principles of Real Estate	3
REAL 310—Real Estate Law	3
OADM 321—Business Communications	3
OADM 363—Office Management	3
	36

It is strongly recommended that the student minor in business administration.

Suggested Sequence of Courses for a BA Degree in Government

The following program has been devised to help students in selecting their courses and preparing their schedules. Close adherence to it will aid the student in meeting requirements for graduation.

FRESHMAN YEAR

	Sem. Hrs.
First Semester	
GOVT 141—Government of the United States	3
ENG 101—Composition I	3
SCI 103—Intro. to Physical Science	3
HLTH 150—Personal Health	2
PHED—activity	1
SOC 101—General Sociology	3
	15
Second Semester	
GOVT 242—State and Local Government	3
ENG 102—Composition II	3
BIOL 105—Intro. to Biological Sciences	3
MATH 152—College Algebra	3
ECON 101—Intro. to the American Economy	3
FNA 160—Appreciation of the Fine Arts	3
	18

SOPHOMORE YEAR

	Sem. Hrs.
First Semester	
GOVT 330—Parliamentary Democracies	3
GOVT—elective	3
ENG 202—Intro. to Literature	3
Minor	3
History elective	3
	15
Second Semester	
GOVT 343—American Political Parties	3
GOVT 344—Kentucky Government	3
Minor	3
Minor	3
Minor	3
	15

JUNIOR YEAR

First Semester	
GOVT 300—Municipal Government	3
Minor	3
Minor	3
BIOL 355—Population, Resources, and Environment	3
SPCH 370—Business and Professional Speech	3
History elective	3
	18

Second Semester	
GOVT 380—American Courts and Civil Rights	3
Minor	3
GOVT 348—The Legislative Process	3
PHIL 200—Intro. to Philosophy	3
PSY 154—Intro. to Psychology	3
Geography elective	3
	18

SENIOR YEAR

First Semester	
GOVT 450—International Relations	3
Minor	3
GOVT 540—Public Administration	3
ENG 598—Logical Reasoning for Aptitude Examinations	3
HUM—elective	3
Elective	3
	18

Second Semester	
GOVT 444—The American Constitution	3
Minor	3
GOVT 546—Public Personnel Administration	3
HUM—elective	3
Elective	3
	15

History

The opportunities open to the student who selects history as a career are many and varied. The appreciation of human nature gained by an individual who has majored in history at the bachelor's level makes him or her especially valuable in such fields as public relations, journalism, personnel work, counseling, advertising, military service, civil service, sales, or elementary and secondary school teaching.

An undergraduate specialty in history also provides solid background for numerous postgraduate studies, such as government, law, medicine, business administration, and library science.

Requirements for a Major

	Sem. Hrs.
HIS 131—Intro. to Civilization I	3
HIS 132—Intro. to Civilization II	3
HIS 141—Intro. to Early American History	3
HIS 142—Intro. to Recent American History	3
Advanced credit in history	18
Minimum for a major	30

The distribution of 18 hours of advanced credit for the major will be planned in conjunction with the department chairman and/or departmental advisors with care taken to avoid undue concentration of courses in only one field of history.

The courses offered by the department are classified in three fields: American history, European history, and non-Western history (African, Latin American, Middle Eastern, and Asian studies).

For those students seeking teacher certification, HIS 375—The Teaching of Social Studies, is also required (applies to majors, minors, and area of concentration). It is recommended that HIS 375 be taken the semester prior to the professional semester.

Requirements for a Minor

	Sem. Hrs.
HIS 131—Intro. to Civilization I	3
HIS 132—Intro. to Civilization II	3

HIS 141—Intro. to Early American History	3
HIS 142—Intro. to Recent American History	3
Advanced credit in history	9
Minimum for a minor	21

Suggested Sequence of Courses for a BA Degree in History

The following program has been devised to help students in selecting courses and preparing their schedules. Close adherence to it will aid the student in meeting requirements for graduation.

FRESHMAN YEAR

First Semester		Sem. Hrs.
HIS 131—Introduction to Civilization I		3
OR		
HIS 141—Introduction to Early American History		3
SOC SCI—elective		3
ENG—composition		3
General education requirement		3
SCI—physical science		3
Elective		3
		18

Second Semester		Sem. Hrs.
HIS 132—Introduction to Civilization II		3
OR		
HIS 142—Introduction to Recent American History		3
SOC SCI—elective		3
ENG—composition		3
PHED—activity course		1
SCI—biological science		3
HLTH 150—Personal Health		2
General education requirement		3
		18

SOPHOMORE YEAR

First Semester		Sem. Hrs.
HIS 141—Introduction to Early American History		3
OR		
HIS 131—Introduction to Civilization I		3
Minor		3
ENG—literature elective		3
MATH—elective		3
EDSE—Foundations of Secondary Education		2
Elective		3
		17

Second Semester		Sem. Hrs.
HIS 142—Introduction to Recent American History		3
OR		
HIS 132—Introduction to Civilization II		3
HIS—elective		3
Minor		3
General education requirement		3
Electives		6
		18

JUNIOR YEAR

First Semester		Sem. Hrs.
Advanced credit in history		6
Minor		6
Electives		6
		18

Second Semester		Sem. Hrs.
Principles of Adolescent Development for Secondary Teachers		3
Advanced credit in history		6
Minor		6
Elective		3
		18

SENIOR YEAR

First Semester		Sem. Hrs.
The Teaching of Social Studies		3
Advanced credit in history		6
Minor		3
Elective		6
		18

Second Semester		Sem. Hrs.
Professional semester (student teaching)		
OR		
Electives (if teaching certificate is not desired)		17

Military Science

The objective of the military science program, offered on an elective basis, is to impart leadership and management

skills required in both civilian and military enterprises. The program affords both men and women the opportunity to be commissioned as officers in the United States Army Reserve, National Guard, or the active Army upon graduation.

Requirements for a Military Science Minor

6 to 8 credit hours from the following MS courses denoted by an asterisk (). All other MS courses are required. 6-8

	Sem. Hrs.
*MS 101—Introduction to Military Science	2
*MS 102—U.S. Army: Its Evolution and Development	2
*MS 201—Leadership Principles and Techniques	2
*MS 202—Instructional Techniques and Survey of Army Career Fields	3
MS 301—Advanced Military Science I	3
MS 302—Advanced Military Science II	3
MS 401—Advanced Military Science I	3
MS 402—Advanced Military Science II	3
Electives of particular interest and value to military science as approved by military science advisor (300 level courses or above)	6
Minimum for minor	24

*Placement credit for these courses may be given to veterans, graduates of college level ROTC summer programs, and participants in high school level ROTC programs.

The following criteria must be met by all students in order to minor in military science:

1. Acceptance into the advanced course.
2. A cumulative grade-point average of 2.3 or higher.
3. A grade-point average of 2.5 or better in the major field or area of concentration.
4. A grade-point average of 3.0 or better in military science.

The above standards may be waived, providing the cadet has a cumulative grade-point average of 2.25 or better, with the approval of a board consisting of the professor of military science, the vice president for academic affairs, and an MS IV cadet who has the rank of cadet major or above.

Sociology, Social Work, and Corrections

Programs in three academic and career-oriented areas of study are offered by the Department of Sociology, Social Work, and Corrections.

Sociology

The course of study offered in sociology complements a broad liberal arts education and is suitable preparation for persons wishing to pursue careers in law, human relations, industrial relations, urban and rural planning and zoning, the ministry, high school social science teaching, and a wide variety of positions in public and private agencies.

Requirements for a Major in Sociology

	Sem. Hrs.
SOC 101—General Sociology	3
SOC 305—Cultural Anthropology	3
SOC 405—Sociological Theory	3
SOC 450—Research Methodology	3
SOC—electives of which 12 sem. hrs. must be on the 300 level or above	18
	30

Requirements for a Minor in Sociology

	Sem. Hrs.
SOC 101—General Sociology	3
SOC 203—Contemporary Social Problems	3
SOC 405—Sociological Theory	3
SOC 450—Research Methodology	3
SOC—electives 300 level or above	9
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Suggested Sequence of Courses for a BA Degree in Sociology

The following program has been devised to help students in selecting courses in arranging their schedules. Close adherence to it will aid the student in meeting requirements for graduation.

FRESHMAN YEAR

	First Semester	Sem. Hrs.
SOC 101—General Sociology	3	3
ENG 101—Composition I	3	3
SCI 103—Introduction to Physical Sciences	3	3
General education requirement	3	3
*HIS, GEO or GOVT general education requirement	3	3
PHED—activity course	1	16

	Second Semester	Sem. Hrs.
SOC 203—Contemporary Social Problems	3	3
ENG 102—Composition II	3	3
BIOL 105—Introduction to Biological Sciences	3	3
General education requirement	3	3
HIST general education requirement	3	3
		15

SOPHOMORE YEAR

	First Semester	Sem. Hrs.
SOC—elective	3	3
HLTH 150—Personal Health	2	2
ENG—literature	3	3
GEO or GOVT general education requirement	3	3
Minor requirement	3	3
General elective	2	16

	Second Semester	Sem. Hrs.
SOC 305—Cultural Anthropology	3	3
SOC—elective	3	3
General education requirement	3	3
MATH general education requirement	3	3
General elective or minor requirement	4	16

JUNIOR YEAR

	First Semester	Sem. Hrs.
SOC—elective	3	3
Minor requirements	6	6
Electives	7	16

	Second Semester	Sem. Hrs.
SOC—elective	3	3
Minor requirements	6	6
Elective	7	16

SENIOR YEAR

	First Semester	Sem. Hrs.
SOC 405—Sociological Theory	3	3
SOC—elective	3	3
Minor requirements and electives	10	16

	Second Semester	Sem. Hrs.
SOC 450—Research Methodology	3	3
Minor requirements and electives	13	16

*Students seeking teacher certification should consult their advisors.

Requirements for a Major in Sociology with an Emphasis in Corrections

	Sem. Hrs.
SOC 101—General Sociology	3
SOC 203—Contemporary Social Problems	3
SOC 354—The Individual and Society	3
SOC 374—American Minority Relations	3
SOC 405—Sociological Theory	3
SOC 450—Research Methodology	3
COR 201—Sociology of Corrections	3
COR 320—Probation and Parole	3
COR 420—Seminar in Criminal Behavior	3
COR 590—Practicum in Corrections	6
COR—elective	3
	36

Suggested Sequence of Courses for a BA Degree in Sociology/Corrections

The following program has been devised to help students in selecting courses and arranging their schedule. Close adherence to it will aid the student in meeting requirements for graduation.

FRESHMAN YEAR

First Semester	Sem. Hrs.
SOC 101—General Sociology	3
ENG 101—Composition I	3
SCI 103—Introduction to Physical Sciences	3
General education requirement	3
HIS general education requirement	3
PHED—activity course	1
	16

Second Semester	Sem. Hrs.
SOC 203—Contemporary Social Problems	3
ENG 102—Composition II	3
BIOL 105—Introduction to Biological Sciences	3
General education requirement	3
GEO or GOVT general education requirement	3
General elective	1
	16

SOPHOMORE YEAR

First Semester	Sem. Hrs.
COR 201—Sociology of Corrections	3
ENG—literature elective	3
HLTH 150—Personal Health	2
General education requirement	3
Minor requirement	3
General elective	2
	16

Second Semester	Sem. Hrs.
SOC 354—The Individual and Society	3
General education requirements	6
General elective or minor requirement	7
	16

JUNIOR YEAR

First Semester	Sem. Hrs.
COR 320—Probation and Parole	3
SOC 374—American Minority Relations	3
General electives and minor requirements	10
	16

Second Semester	Sem. Hrs.
COR—elective	3
General electives and minor requirements	13
	16

SENIOR YEAR

First Semester	Sem. Hrs.
SOC 405—Sociological Theory	3
General electives and minor requirements	13
	16

Second Semester	Sem. Hrs.
COR 420—Seminar in Criminal Behavior	3
COR 590—Practicum in Corrections	6
SOC 450—Research Methodology	3
General electives and minor requirements	4
	16

Social Work

Social work is a helping people profession. At MSU, the social work program is a professional training program that prepares students for entry level professional social work practice. The program has baccalaureate level professional education accreditation in the Council on Social Work Education.

Requirements for the Bachelor of Social Work

	Sem. Hrs.
SWK 210—Orientation to Social Welfare	4
SWK 230—Social Work Values and Policy	3
SWK 322—Human Behavior in the Social Environment	3
SWK 325—Social Work Practice I	3
SWK 425—Social Work Practice II	3
SWK 450—Research Methodology	3
SWK 490—Senior Seminar	1
SWK 510—Practicum in Social Work	8
SWK 525—Social Work Practice III	3
SWK 530—Social Policy and Planning	3
SWK—electives	6

SOC 101—General Sociology	3
SOC 203—Contemporary Social Problems	3
SOC 305—Cultural Anthropology	3
SOC 354—The Individual and Society	3
SOC 374—American Minority Relations	3
SOC 405—Sociological Theory	3
ENG 591 or 592—Technical Writing	3
ECON 101—Introduction to the American Economy	3
GOVT 380—American Courts and Civil Rights	3
GOVT 242—State and Local Government	3
PHIL 200—Introduction to Philosophy	3
PSY 154—Introduction to Psychology	3
PSY 590—Abnormal Psychology	3
General education requirements and electives	49
	128

Suggested Sequence of Courses for a BSW Degree

The following program has been devised to help students in selecting courses and arranging their schedules. Close adherence to it will aid the student in meeting requirements for graduation.

FRESHMAN YEAR

First Semester	Sem. Hrs.
ENG 101—Composition I	3
SCI 100—Physical Science	3
PSY 154—Life Oriented General Psychology	3
SOC 101—General Sociology	3
HLTH 150—Personal Health	2
PHED—P.E.	1
	15

Second Semester	Sem. Hrs.
ENG 102—Composition II	3
SCI 105—Biological Science	3
SOC 203—Contemporary Social Problems	3
MATH—math	3
General elective	3
	15

SOPHOMORE YEAR

First Semester	Sem. Hrs.
ENG—Literature	3
GOVT 242—State and Local Government	3
SWK 210—Orientation to Social Welfare	4
PHIL 200—Introduction to Philosophy	3
ECON 101—Introduction to the American Economy	3
	16

Second Semester	Sem. Hrs.
SWK 230—Social Work Values and Policy	3
HUM 110—Basic Speech	3
SOC 305—Cultural Anthropology	3
HUM—general education requirement (humanities)	3
General electives	6
	18

JUNIOR YEAR

First Semester	Sem. Hrs.
SOC 354—Individual and Society	3
SWK 322—Human Behavior in the Social Environment	3
PSY 590—Abnormal Psychology	3
GOVT 380—American Courts and Civil Rights	3
General electives	6
	18

Second Semester	Sem. Hrs.
SWK 325—Social Work Practice I	3
SWK 450—Research Methodology	3
SOC 405—Sociological Theory	3
SWK—Elective	3
SOC 374—American Minority Relations	3
General elective	3
	18

SENIOR YEAR

First Semester	Sem. Hrs.
SWK 425—Social Work Practice II	3
ENG 591—Technical Writing	3
SWK 530—Social Policy and Planning	3
SWK—elective	3
General elective	4
	16

Second Semester	Sem. Hrs.
SWK 525—Social Work Practice III	3
SWK 510—Social Work Practicum	8
SWK 490—Senior Seminar	1
	12

Requirements for the Associate of Applied Arts in Social Work

	Sem. Hrs.
SWK 210—Orientation to Social Welfare	4
SWK 230—Social Work Values and Policy	3
SWK 310—Field Experience in Social Work	3
SWK 315—Child Welfare Services	3
SWK 322—Human Behavior in the Social Environment	3
SWK 325—Social Work Practice I	3
SOC 101—General Sociology	3
SOC 203—Contemporary Social Problems	3
SOC 354—The Individual and Society	3
ECON 101—Introduction to the American Economy	3
ENG 101—Composition I	3
ENG 102—Composition II	3
OR	
ENG 192—Technical Composition	3
PHIL 200—Introduction to Philosophy	3
GOVT 242—State and Local Government	3
PSY 154—Introduction to Psychology	3
HLTH 150—Personal Health	2
MATH—elective	3
Approved electives	14
	65

Corrections

Corrections is a field providing challenging opportunities for those desiring a career focused upon the treatment and rehabilitation of criminal offenders. The corrections program at Morehead State University is designed to provide well-trained, highly skilled personnel to fill new positions and to provide retraining and in-service training for existing correctional personnel.

The program of study combines the liberal arts, social sciences, and corrections philosophies and principles of practice. In addition to participating in traditional classroom learning situations, students are required to work in correctional settings so that they may acquire practical experience in the profession.

Requirements for an Area of Concentration in Corrections

	Sem. Hrs.
COR 201—Sociology of Corrections	3
COR 320—Probation and Parole	3
COR 420—Seminar in Criminal Behavior	3
COR 450—Research Methodology	3
COR 510—Law of Corrections	3
COR 515—Correctional Counseling	3
COR 590—Practicum in Corrections	6
COR—advanced electives	12
SOC 101—General Sociology	3
SOC 203—Contemporary Social Problems	3
SOC 354—The Individual and Society	3
SOC 374—American Minority Relations	3
SOC 405—Sociological Theory	3
SOC—advanced electives	6
GOVT 540—Public Administration	3
SWK 535—Group Dynamics	3
ENG 591 or 592—Technical Writing	3
PSY 154—Introduction to Psychology	3
PSY 590—Abnormal Psychology	3
General requirements and electives	56
	128

Suggested Program

The following program has been devised to help students in selecting courses and arranging their schedules. Close adherence to it will aid the student in meeting requirements for graduation.

FRESHMAN YEAR

	Sem. Hrs.
First Semester	
SOC 101—General Sociology	3
ENG 101—Composition I	3
SCI 103—Introduction to Physical Science	3
General education requirement	3
HIS general education requirement	3
PHED—activity course	1
	16

Second Semester

COR 201—Sociology of Corrections	3
SOC 203—Contemporary Social Problems	3
ENG 102—Composition II	3
BIOL 105—Introduction to Biological Science	3
GEO or GOVT general education requirement	3
	15

SOPHOMORE YEAR

First Semester

SOC 354—The Individual and Society	3
PSY 154—Introduction to Psychology	3
ENG 202—Introduction to Literature	3
General education requirement	6
	15

Second Semester

COR 320—Probation and Parole	3
SOC 374—American Minority Relations	3
Corrections elective	3
Sociology elective	3
General education requirement	3
	15

JUNIOR YEAR

First Semester

Corrections elective	3
Sociology elective	3
General education requirements	6
General elective	3
	15

Second Semester

COR 510—Law of Corrections	3
SOC 405—Sociological Theory	3
GOVT 540—Public Administration	3
Corrections elective	3
General education requirement	3
	15

SENIOR YEAR

First Semester

COR 450—Research Methodology	3
COR 515—Correctional Counseling	3
SWK 535—Group Dynamics	3
ENG 591 or 592—Technical Writing	3
General education requirements	6
	18

Second Semester

COR 420—Seminar in Criminal Behavior	3
COR 590—Practicum in Corrections	6
PSY 590—Abnormal Psychology	3
Corrections elective	3
Social Science elective	3
	18

For a Minor in Corrections

	Sem. Hrs.
COR 201—Sociology of Corrections	3
COR 320—Probation and Parole	3
COR 420—Seminar in Criminal Behavior	3
Advanced electives in corrections	12
	21

Requirements for an Associate of Applied Arts in Corrections—Two-Year Program

	Sem. Hrs.
COR 201—Sociology of Corrections	3
COR 320—Probation and Parole	3
COR 390—Field Experience in Corrections	3
COR 420—Seminar in Criminal Behavior	3
Advanced corrections electives	9
SOC 101—General Sociology	3
SOC 203—Contemporary Social Problems	3
SOC 354—The Individual and Society	3
SOC 374—American Minority Relations	3
SWK 210—Orientation to Social Welfare	4
SWK 315—Child Welfare Services	3
GOVT 380—American Courts and Civil Rights	3
PSY 154—Introduction to Psychology	3
ENG 101—Composition I	3
ENG 102—Composition II	3
ENG 192—Technical Composition	3
MATH 131—General Mathematics	3
Approved electives	7
	65

Course Offerings

NOTE: (3-0-3) following a course title means 3 hours class, no laboratory, 3 hours credit. Roman numerals I, II, and III following the credit hour allowance indicate the term in which the course is normally scheduled: I—fall, II—spring, III—summer.

ACCOUNTING

ACCT 139. Cooperative Study I. (1 to 8 hrs.); on demand. Work experience in a field relevant to the student's career objectives and academic preparation. Experience is usually analogous to a freshman level course.

ACCT 199. Selected Workshop Topics. (1 to 4 hrs.); on demand. Periodic workshops on various accounting subjects are designed to supplement the basic course offerings in accounting. Credit toward degree programs must be approved by the student's advisor.

ACCT 239. Cooperative Study II. (1 to 8 hrs.); on demand. Work experience with an extension of exposure gained in ACCT 139 or of a nature similar to a sophomore status course.

ACCT 281. Principles of Accounting I. (3-0-3); I, II, III. Meaning and purpose of accounting; the balance sheet, the income statement, books of original entry, special journals, adjusting and closing entries, controlling accounts, notes, interest, inventory, accounts receivable, fixed assets.

ACCT 282. Principles of Accounting II. (3-0-3); I, II, III. Prerequisite: ACCT 281. Payroll; corporate accounts, ownership equity, and earnings; financial reporting; manufacturing accounting; funds flow analysis; interpretation of financial statements; managerial analysis.

ACCT 300. Managerial Accounting. (3-0-3); I, II. Prerequisite: ACCT 282. Analysis of cost data; manufacturing and cost analysis, budgets, managerial decision-making analysis. Not available for option credit for accounting majors.

ACCT 339. Cooperative Study III. (1 to 8 hrs.); on demand. Work experience with an in-depth exposure representative of the student's academic level and experience analogous to a junior level status.

ACCT 384. Intermediate Accounting I. (3-0-3); I, II. Prerequisite: ACCT 282. Fundamental accounting procedures, the accounting procedures, the accounting cycle, financial position, measurement of costs, revenues, and expenses, analysis of cash, temporary investments receivables, inventory, investments, plant and equipment, intangibles.

ACCT 385. Intermediate Accounting II. (3-0-3); I, II. Prerequisite: ACCT 384. Accounting theory and practice applicable to corporate net worth accounts and liabilities; appropriations and reserves; income determination, funds flow analysis, special problems of analysis, presentation, and interpretation of financial data.

ACCT 386. Internship of Accounting. (1 to 4 hrs.); I, II, III. Prerequisites: ACCT 385 and consent of department. On-the-job professional experience in accounting arranged through cooperating public accounting firms, industrial firms, and governmental agencies.

ACCT 387. Income Tax. (3-0-3); I, II. Prerequisite: ACCT 282 or consent of instructor. Income tax legislation, federal and state; returns for individuals; gross income; basis for gains and losses; capital gains and losses; dividends; deductions; withholding. Also brief survey of taxation of partnerships, corporations, estates, trusts, and gifts.

ACCT 390. Cost Accounting I. (3-0-3); I, II. Prerequisite: ACCT 282. Control and classification of manufacturing costs, job order and process cost analysis; materials, labor, and overhead analysis; joint and by-product costing.

ACCT 399. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various accounting subjects will be presented periodically. These workshops supplement the basic accounting courses. Credit toward degree programs must be approved by the student's advisor.

ACCT 439. Cooperative Study IV. (1 to 8 hrs.); on demand. Work experience with an in-depth exposure representative of the student's academic level and experience analogous to a senior level course.

ACCT 476. Special Problems in Accounting. (1 to 3 hrs.); I, II, III. Prerequisite: senior standing in accounting and permission of head of department. Provides accounting students opportunity to complete independent advanced work in an accounting area of special interest.

ACCT 482. Advanced Accounting. (3-0-3); I. Prerequisite: ACCT 385. Accounting for reorganizations, consolidations, and mergers; purchasing and pooling methods of business combinations, parent and subsidiary accounting for consolidated balance sheets; income statements; statement of changes in financial position; international operations; partnerships; installment sales; consignments; home office and branch accounting.

ACCT 483. Auditing. (3-0-3); I. Prerequisite: ACCT 385. Accounting principles applied to internal control systems; audit working papers; detail audit; internal audit; special and fractional audits; audit reports; tests and procedures used in auditing, ethical responsibilities of CPAs.

ACCT 506. Theory of Accounts. (3-0-3); on demand. Prerequisite: ACCT 385. Study of development of accounting theory, application of theory to income

measurement valuation and equities, review of current literature in the field of FASB, CASB, SEC, AICPA, and AAA pronouncements affecting theory.

ACCT 528. Governmental Accounting. (3-0-3); II. Prerequisite: ACCT 282 or permission of instructor. Study of fund accounting techniques for government accounting terminology and budgeting processes; operations of general revenue and expense, capital project, debt service, trust, intragovernment, special assessment, and enterprise funds analysis of fixed assets and liabilities, and basics of hospital and public school fund accounting.

ACCT 539. Cooperative Study V. (1 to 8 hrs.); on demand. Work experience providing advanced specialized exposure in a career-related position. Available to upper division undergraduate and graduate students.

ACCT 575. Controllership. (3-0-3); on demand. Prerequisites: ACCT 281 and 282 or equivalent. Emphasis on appreciation of the function of the controller in a contemporary business organization. Planning for control, reporting, and interpreting operation results, evaluating new programs, tax administration and other types of required government reporting, economic appraisal of programs, and the protection of assets.

ACCT 584. C.P.A. Problems. (3-0-3); on demand. Prerequisites: 20 hrs. of accounting and senior standing. Application of generally accepted accounting principles to CPA examination problems. Covers four sections of exam (practice, theory, auditing, and business law) with emphasis on problems and theory.

ACCT 587. Advanced Tax Accounting. (3-0-3); II. Prerequisite: ACCT 387. Federal income tax report preparation with emphasis on partnership and corporation returns; estate and trust taxation; gift tax; special problems in taxation, tax research.

ACCT 590. Cost Accounting II. (3-0-3); on demand. Prerequisite: ACCT 390. Cost analysis for planning, evaluation, and control. Standard costs, direct costing, budgets, cost and profit analysis, alternative choice decisions, linear programming, capital budgeting.

ACCT 599. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various accounting subjects will be presented periodically to supplement the basic course offerings in accounting. Credit toward degree programs must be approved by the student's advisor.

AGRICULTURE

AGR 101. General Agriculture. (1-0-1); I. The importance of agriculture in the community, state, nation, and world.

AGR 108. Elementary Horsemanship (Stockseat). (0-2-1); I, II. Includes riding basics in relation to stockseat, such as leading a horse, bridling and saddling, grooming, mounting, dismounting, stopping, starting, turning, the horse, riding at different gaits, horsemanship safety and ring etiquette, plus general overall knowledge of horses.

AGR 109. Elementary Horsemanship (Saddle Seat). (0-2-1); I, II. Includes riding basics in relation to saddle seat, such as leading a horse; checking saddle and bridle; mounting and dismounting, stopping, starting, turning, and backing the horse; riding horses at different gaits; horsemanship safety and ring etiquette; and general overall knowledge of horses.

AGR 110. Elementary Horsemanship (Hunt Seat). (0-2-1); I, II. Includes riding basics in relation to hunt seat, such as leading a horse; checking saddle and bridle; mounting and dismounting, stopping, starting, turning, and backing the horse; riding horses at different gaits; horsemanship safety and ring etiquette; and general overall knowledge of horses.

AGR 118. Intermediate Horsemanship (Stockseat). (0-2-1); I, II. Prerequisite: AGR 108, 109, 110 or consent of instructor. Includes review of elementary horsemanship (stockseat) techniques; handling horses properly from the ground; grooming and tacking-up; more advanced riding skills such as rein and leg aids; correct body position; halts, turns, and figurework; trail riding; and parts of the horse, bridle, and saddle, all in relation to western riding.

AGR 119. Intermediate Horsemanship (Saddle Seat). (0-2-1); I, II. Prerequisite: AGR 109, AGR 110, or consent of instructor. Includes review of elementary horsemanship (saddle seat) techniques; handling horse properly from ground; grooming, tacking-up; more advanced riding skills such as leg aids, rein aids, and canter leads; detailed study of gaits, equipment, and dress; trail riding and showing horses, parts of the horse, bridle, and saddle.

AGR 120. Intermediate Horsemanship (Hunt Seat). (0-2-1); I, II. Prerequisite: AGR 109, AGR 110, or consent of instructor. Includes review of elementary horsemanship (hunt seat) techniques; handling horse properly from ground; grooming, tacking-up; more advanced riding skills such as leg aids, rein aids, and canter leads; detailed study of gaits, equipment, and dress; trail riding and showing horses, parts of the horse, bridle, and saddle.

AGR 121. Equitation. (1-4-3); I, II. Grooming, saddling, bridling, mounting, seat and hands. Basic equitation for students with no previous experience.

AGR 133. Farm Livestock Production. (2-2-3); I, II. Fundamental genetics, nutrition, and physiology of beef and dairy cattle, swine, and sheep.

AGR 180. Elementary Field Crops. (2-2-3); II. Prerequisite: BIOL 150. A study of the fundamentals of crop production, current practices in grain, pasture, forage, and medicinal crop production; seed production and quality; morphology of crops.

AGR 203. Agricultural Economics. (3-0-3); I, II. Economic organization of the farm productive unit; concentration on principles of production economics, supply and demand schedules.

AGR 205. Farm Records. (3-0-3); II. Development and application of farm records necessary for farm business analysis, including a study of types of inventories, depreciation schedules, cost determining, and record keeping.

AGR 207. Land Conservation and Forest Management. (2-2-3); II. Principles of land resource conservation. Special emphasis on land and water conservation by reforestation of areas denuded by strip mining.

AGR 211. Soils. (2-2-3); I. Prerequisite: CHEM 101 and 101A. Study of origin, formation, composition, and classification of soils; the physical, chemical, and biological properties of the soil in relation to plant growth; the principles of soil management, conservation, and land use.

AGR 212. Landscape Plants. (2-2-3); I. A study of ornamental trees, shrubs, and vines commonly used in landscaping. Emphasis is placed on identification, characteristics, adaptability, and maintenance.

AGR 213. Landscape Gardening. (2-2-3); II. Prerequisite: AGR 212. An introduction to landscape gardening with emphasis on design, construction, planting, and maintenance of the home grounds.

AGR 215. Horticulture. (2-2-3); I, II. Prerequisite: BIOL 150. A study of the basic principles underlying horticultural practices in fruit growing, vegetable gardening, landscape gardening, and floriculture.

AGR 216. Floriculture. (1-2-2); on demand. The elementary principles of selection, identification, culture, and use of foliage plants.

AGR 231. Livestock Judging. (1-4-3); II. A study of the types of purebred and commercial beef cattle, sheep, horses, and swine. Studies will be made on evaluating market, breeding, and performance classes.

AGR 235. Supervised Work Experience. (1 to 6 hrs.); I, II, III. A supervised work experience program for students planning careers in agriculture upon completion of the associate degree program.

AGR 237. Poultry Production. (2-2-3); on demand. Principles of poultry production, including breeds and development, incubation, breeding, and genetics; management practices, housing, feeding, and nutrition; diseases, their prevention and control.

AGR 242. Light Horse Husbandry. (2-2-3); I, II. A study of horse care, including first aid, feeding, grooming, stable vices, health requirements, diseases, disease control, and building and fence construction. Students will also gain practical experience by working at the barn.

AGR 245. Horseshoeing. (2-2-3); II. The fundamentals of horseshoeing; the basic use of farrier tools; anatomy and physiology of the foot, pastern, and legs. Trimming feet, fitting and nailing shoes, normal and corrective shoeing.

AGR 251. Introduction to Agriculture Mechanics. (2-2-3); I. Farm shop organization; shop safety; selection, use, and maintenance of hand and power tools and equipment for construction and maintenance in agriculture; practical exercises and projects to develop essential skills.

AGR 301. Farm Management. (3-0-3); I, II. Prerequisite: AGR 203. Farm organization, fitting livestock and cropping programs into a functioning unit, profit maximization and least cost combination of resources for a specified level of production.

AGR 302. Agriculture Finance. (3-0-3); I. A study of farm capital structure and needs. The policy and practices of institutions offering credit to farmers are analyzed.

AGR 303. Land Economics. (3-0-3); II. Prerequisites: AGR 203 and 211. Farm selection and appraisal of land resources; adaptation of land as the basis for farm organization and agricultural production; study of land tenure systems; rights of ownership; recreational possibilities of nonproductive land.

AGR 304. Genetics. (2-2-3); I, II. Prerequisite: BIOL 209 or 215. (See BIOL 304.)

AGR 305. Marketing of Farm Products. (3-0-3); I. Development of geographical specializations, demand and supply schedules of agricultural products, price equilibrium, long and short run cyclical price movements, hedging in futures, demand expansion, increasing operational and pricing efficiency, specific commodity marketing.

AGR 308. Weed Control. (2-2-3); I. Prerequisites: AGR 180, 211, CHEM 112, 112A. Identification and classification of weedy species, methods of reproduction, and growth characteristics. Effects on crop and livestock yield.

AGR 311. Soil Conservation. (2-2-3); I. Prerequisite: AGR 211. Agricultural land resources, capabilities, and uses; extent of erosion, causes of erosion and its effect; the soil and its classification; mapping; aims and principles of soil conservation; economics of soil conservation; conservation practices, including contouring, terracing, strip farming, and sodded waterways.

AGR 312. Soil Fertility and Fertilizers. (3-0-3); II. Prerequisite: AGR 211. The source and methods of manufacture of fertilizer materials; profitable use of fertilizers and lime in soil management.

AGR 314. Plant Propagation. (2-2-3); II. Prerequisite: AGR 215 or consent of instructor. A study of the principles and practices of the propagation of horticultural plants. Includes seeding, layering, cutting, division, grafting, and budding; use of root stimulants, types of facilities and equipment required, and other cultural practices.

AGR 315. Fruit Production. (2-2-3); on demand. Prerequisite: AGR 215 or consent of instructor. Tree fruits, nuts, and small fruits; varieties, fruiting sites, soils, pruning, pest control, planting, and commercial marketing.

AGR 316. Feeds and Feeding. (2-2-3); I, II. Prerequisites: CHEM 201, 201A, and AGR 133. Feeds and formulation of rations; fats, carbohydrates, proteins, and their digestion; the role of minerals, vitamins, and feed additives in nutrition.

AGR 317. Floral Design. (2-2-3); I, II. A beginning course for floral design dealing with basics in arranging fresh, dried, and permanent flowers and foliage.

AGR 320. Principles of Vegetable Production. (2-2-3); on demand. Prerequisite: AGR 215 or consent of instructor. Principles of commercial and home vegetable production and handling. Includes soil; ecological and economic factors which influence production; producing for fresh and processing markets; varieties, pest control, cultural practices, and mechanization.

AGR 321. Greenhouse Production I. (2-2-3); I. Prerequisite: AGR 215 or consent of the instructor. Factors involved in locating, constructing, and equipping a greenhouse. Studies soil, soil fertilization, sterilization, watering, cooling, ventilating and heating systems and other developments in greenhouse mechanization; types of structures, materials, and methods of construction.

AGR 322. Greenhouse Production II. (2-2-3); II. Prerequisite: AGR 215 and 321 or consent of instructor. Continuation of 321 in selection of type of crop; producing, harvesting, storing, and marketing of bedding plants, greenhouse vegetables, cut plants, and potted plants; plant growth and reproduction.

AGR 325. Turf Management. (2-2-3); I. Prerequisite: BIOL 150 and AGR 215 or consent of instructor. Turf grass varieties, basic principles of production and their practical application to establishment, maintenance, renovation, and pest control on lawns, playgrounds, and similar turf areas.

AGR 326. Nursery Management. (2-2-3); II. Prerequisite: AGR 215, 314, or consent of instructor. Selection, systems of culture, harvesting and management of ornamental trees, shrubs, and vines.

AGR 327. Advanced Landscape Design. (2-2-3); II. Prerequisite: AGR 212, 213, or consent of instructor. Selection and location of ornamental plants for large properties such as schools, playgrounds, estates, apartment complexes, and factories. Preparing specifications and bids.

AGR 330. Livestock Improvement. (2-2-3); II. Study of the principles, practices, and procedures of animal breeding, selection and mating systems and their application for farm livestock production and improvement.

AGR 331. Advanced Livestock Judging. (2-2-3); II. Prerequisite: AGR 231. Continuation of AGR 231. Primarily for judging team candidates.

AGR 332. Advanced Horsemanship. (1-4-3); I, II. Prerequisite: AGR 121 or equivalent. The skills of performance equitation. Specific skills needed in training of horses. Emphasis will be on the horseman's role in extracting performance.

AGR 334. Entomology. (2-2-3); II. Prerequisite: BIOL 208. (See BIOL 334.)

AGR 335. Equitation Teaching. (2-2-3); II. Prerequisite: AGR 332. The techniques of horsemanship and methods of equitation instruction.

AGR 336. Dairy Cattle Feeding, Breeding, and Management. (2-2-3); on demand. Prerequisite: AGR 133, and AGR 316. Principles of nutrition as applied to dairy cattle, records, breeding programs, herd operation, production costs and returns.

AGR 341. Apiculture. (2-2-3); on demand. Establishing and managing honeybee colonies, prevention and control of pests, and handling the honey crop.

AGR 342. Horse Production. (2-2-3); I. Prerequisite: AGR 242. A general study of the anatomy and physiology of the horse, the relationship of form to function, horse selection, horse breeding, feeding, and genetics.

AGR 343. Beef Production. (2-2-3); II. Prerequisites: AGR 133 and 316 or approval of the department. The history, development, and distribution of breeds; sources of cattle and carcass beef; production and distribution practices in steer feeding; commercial and purebred breeding herds.

AGR 344. Swine Production. (2-2-3); I. Prerequisites: AGR 133 and 316 or approval of the department. History, development, and distribution of types of breeds; management practices, including disease problems in commercial and purebred herds.

AGR 345. Sheep Production. (2-2-3); on demand. Prerequisites: AGR 133 and 316 or approval of the department. History, development, and distribution of types and breeds; selection, breeding, feeding, and management of sheep; production and handling of wool.

AGR 350. Farm Power and Machinery Management. (2-2-3); I. Selection, operation, maintenance, and servicing of agriculture power and machinery units.

AGR 384. Forage Crops. (2-2-3); II. Prerequisites: AGR 180 and 211. The distribution of various forage crops and their adaptations to soil and climate; seeding rates and mixtures; productivity; and pest control.

AGR 385. Agribusiness Management. (3-0-3); II even years or on demand. Prerequisite: AGR 203. Management of the agribusiness functions, responsibilities, and operational characteristics unique to an agriculturally related business, particularly cooperatives.

AGR 386. Introductory Agricultural Policy. (3-0-3); II in odd years or on demand. A history of agricultural policy and policy making; defining the problems and their settings, government participation in supply and demand for agricultural products.

AGR 471. Seminar. (1-0-1); I, II. Prerequisite: second semester junior standing. Identification of problems and issues reflected in the current professional agricultural literature.

AGR 476. Special Problems. (1 to 3 hrs.); I, II, III. Prerequisite: upper division standing. Permits a student to do advanced work as a continuation of an

earlier experience or to work in an area of special interest. Topic for investigation must be selected and approved by advisor prior to registration.

AGR 480. Equine Breeding and Reproduction. (1-4-3); II. Prerequisites: AGR 342 and AGR 332 or equivalent. A thorough study of the anatomy and physiology of reproduction in the stallion and the mare with practical emphasis on teasing, breeding, and foaling techniques, semen collection, insemination, and evaluation, along with daily recordkeeping.

AGR 505. Farm Business Analysis. (2-2-3); on demand. Prerequisite: consent of instructor. A basic course in the applicability of farm records to the efficiency analysis of whole farms and of specific enterprises. Actual university farm enterprises will be used to provide the data source for laboratory work.

AGR 512. Conservation Workshop. (2-2-3); on demand. Prerequisite: consent of instructor. Development of the conservation movement with broad treatment of the basic natural resources, including land, water, air, minerals, forests, and wildlife.

AGR 515. Animal Nutrition. (2-2-3); II. Prerequisite: AGR 316. Chemistry, metabolism, and physiological functions of nutrients; digestibility, nutritional balances, and measures of food energy.

AGR 580. Methods of Teaching Vocational Agriculture. (4-0-4); II. The principles of methods applied to teaching vocational agriculture to high school students. Course organization, farming programs, and Future Farmers of America activities.

AGR 582. Adult and Young Farmer Education. (3-0-3); II. The principles and techniques method in organizing and program planning in post high school vocational agriculture and conducting young farmer and adult farmer classes.

AGR 584. Teaching Vocational Agriculture. (8-0-8); II. Supervised teaching in centers selected by the state agriculture education staff and members of the teaching staff. Teacher experiences with in-school and out-of-school groups.

AGR 586. Planning Programs in Vocational Agriculture. (3-0-3); II. Organization and analysis of the program of vocational agriculture. Departmental program of activities, summer programs, advisory committees, and Future Farmers of America activities.

AGR 588. Curriculum Development and Content Selections. (3-0-3); III. Each student prepares the content for a four-year program in vocational agriculture.

AGR 592. Supervision in Agriculture. (3-0-3); I, II. The principles and techniques needed in individual group supervision of vocational agricultural programs.

ALLIED HEALTH SCIENCES

AHS 100. Orientation to Allied Health. (1-0-1); I, II. A review of the history of the health occupations, the ethics of health care, and professional conduct. The various health careers will be identified, their functions described, and the way in which they articulate into the health care team is studied.

AHS 202. Basic Pharmacology. (2-0-2); I, II. This course is to assist the student in the health field to understand responsibility in the administration of medicine and to appreciate the need for accuracy. Basic information concerning the main effects, uses, and doses of the common drugs, including weights, measurements, and abbreviations commonly used in medicine. Review of mathematics related to calculating and translation of dosage.

AHS 301. Seminar. (1 to 3 hrs.); II. Lecture and discussion of problems related to major area and/or health field. Readings in current literature.

AHS 302. Medical Terminology. (2-0-2); I, II. A word-study course of medical terminology. The vocabulary will be taught from a word aspect; a knowledge of medicine or related disciplines is not necessary.

AHS 303. Interpersonal Relations. (3-0-3); I, II. The personality formation of oneself and the "other person." Verbal and non-verbal communications; life forces; coping patterns and values, attitudes, and beliefs are examined. Visual methods and therapeutic methods of communicating with individuals and groups. Some prevalent barriers to communication are discussed. Emphasis is on the health worker's preparation for communication with patients and clients.

AHS 304. Medical Law and Ethics. (2-0-2); II. Designed to acquaint the student with the basic principles of medical law as they apply to the medical assistant, especially considering the basic legal and ethical relationships between the physician, medical assistant, and patient. Coverage includes: contract creation and termination, including implied and informed consent, professional liability, invasion of privacy, malpractice tort liability, breach of contract, and medical practice acts. Emphasis given to professional attitudes and behavior, history of medicine, and different types of medical practice.

AHS 351. Practicum. (1 to 3 hrs.); on demand. Corequisite: to be correlated with a course in major area in Department of Allied Health Sciences. Supervised clinical learning experience in an appropriate agency or facilities through which the students acquire understanding and skill in their major or area of concentration. The student learns to deal with the patient's physical, mental, and social problems; accepts responsibility as a participating team member; learns to work with other professional and non-professional personnel.

AHS 398. Supervised Field Experience. (1 to 6 hrs.); on demand. Prerequisite: consent of advisor. Designed to provide experience in occupational area as student works under supervision in an approved position. Credit commensurate with time worked, type of work, variety of work experiences, periodic evaluation by major department, faculty, and cooperating organization.

ART

ART 101. Drawing I. (2-2-3); I, II, III. Introduction to objective and subjective drawing using various graphic media.

ART 103. Drawing II. (2-2-3); I, II, III. Prerequisite: ART 101. A continuation of ART 101.

ART 104. Lettering, Layout and Design. (2-2-3); I, II. Introduction to lettering principles and their application. Rough and comprehensive layout in black, white, and color with emphasis on design.

ART 121. School Art I. (3-0-3); I, II, III. Introduction to art and to the teaching of art in the lower (1-3) elementary grades.

ART 202. Composition and Drawing. (2-2-3); I, II. Prerequisites: ART 101 and 103. A continuation of objective and subjective drawing with emphasis on composition.

ART 203. Fashion Illustration. (2-2-3); I, II. Prerequisites: ART 101 and 103. Fundamentals of drawing the clothed figure, with subsequent emphasis on the fashion figure, executed in wash, pen and ink, and color. Projects in fashion layout and design.

ART 204. Figure Drawing I. (2-2-3); I, II. Prerequisite: ART 101. Introduction to the human figure as an expressive form; composition, gesture, proportion, and anatomical observations.

ART 214. Painting Techniques I. (2-2-3); I, II, III. Prerequisite: ART 101, 103, 291, or permission of department. Introduction to oil painting, materials and methods, arrangement of the palette; and the use of a variety of different subjects.

ART 221. School Art II. (3-0-3); I, II, III. Philosophy and methods of teaching art to children in the elementary grades; a study of materials, media, and tools.

ART 241. Crafts I. (2-2-3); I, II. Creative and technical processes of weaving, fabric design, metal, and jewelry making.

ART 245. Ceramics I. (2-2-3); I, II, III. Introduction to ceramic forms in hand building, wheel-throwing, glazing, and decorative techniques.

ART 251. Printmaking I. (2-2-3); I, II. Prerequisites: ART 101 and 103. Creative experiments with the printing processes of silkscreen, etching, drypoint, aquatint, collagraphy, monoprint, wood-block, and lithography.

ART 263. Ancient Art. (3-0-3); I, II. The history of Western painting, sculpture, and architecture from prehistoric times until the beginning of the Christian era.

ART 264. Medieval and Renaissance Art. (3-0-3); I, II. The history of Western painting, sculpture, and architecture from the beginning of the Christian era until about 1600.

ART 283. Photographic Design I. (2-2-3); I, II. Experimental and standard photographic processes and techniques through an aesthetic view of the medium.

ART 284. Commercial Photography. (2-2-3); I, II. Concentrated study on fashion and product photography as an element of advertising design.

ART 290. Graphic Design I. (2-2-3); I, II. A study of three-dimensional design with emphasis on product and package design.

ART 291. Color and Design. (2-2-3); I, II, III. A study in two- and three-dimensional designs with emphasis on perception and the fundamentals of visual organization.

ART 292. Three-Dimensional Design. (2-2-3); I, II. A study of three-dimensional design with emphasis on product and package design.

ART 294. Sculpture I. (2-2-3); I, II. Creative experiences in the techniques, media, and tools of sculpture, work in stone, wood, metal, clay, and plaster.

ART 300. Elementary Materials and Methods. (3-0-3); II, III. Prerequisite: acceptance into the teacher education program. Background and philosophy of elementary art in education.

ART 303. Commercial Illustration. (2-2-3); I, II, III. Two- and three-dimensional forms and the various techniques for rendering them for use in commercial design. Emphasis is placed on realistic drawing and presentation of objects.

ART 304. Figure Drawing II. (2-2-3); I, II. Prerequisite: ART 204. A serious search into the expressive possibilities of the figure; anatomical investigation of parts, variety of media and techniques leading to individual interpretation.

ART 314. Painting Techniques II. (2-2-3); I, II, III. Prerequisite: ART 214. Painting from still life and landscape with emphasis on creative interpretation and expression.

ART 321. Materials and Methods for Secondary Art. (3-0-3); I, III. Prerequisite: acceptance into teacher education program. Presentation of the background, philosophy, and techniques for the teaching of art in the secondary school.

ART 345. Ceramics II. (2-2-3); I, II, III. Prerequisite: ART 245. Individual work in wheel-throwing, hand building, operation of kilns, and basic experiments in glazing.

ART 351. Printmaking II. (2-2-3); I, II. Prerequisite: ART 251. An intensified investigation of printing techniques, both relief, intaglio, and planographic studied in Printmaking I.

ART 353. Commercial Layout and Design. (2-2-3); I, II. Advanced work in advertising design with emphasis placed on the commercial application of design principles as they relate to the organization of copy and illustration for use by media.

ART 363. Baroque Art. (3-0-3); II. A survey of European painting, sculpture, and architecture between about 1600 and about 1750.

ART 364. Modern and Contemporary Art. (3-0-3); II, III. A survey of painting, architecture, and sculpture, dealing with neo-Classicism, Romanticism, Realism, and contemporary art.

ART 365. Arts of the United States I. (3-0-3); I. Prerequisite: permission of the department. A survey of the social, political, and cultural movements which affected the course of American artistic development.

ART 383. Photographic Design II. (2-2-3); I, II. Prerequisite: ART 283. Advanced work in the use of photographic design concepts and techniques.

ART 390. Graphic Design II. (2-2-3); I, II. Introduction to the use of graphics as a means of visual communication with emphasis on design concepts. Studio assignments on problems related to the community, society, industry, and commerce.

ART 394. Sculpture II. (2-2-3); I, II. Prerequisite: ART 294. Studio problems involving the manipulation of various sculpture media.

ART 414. Painting Techniques III. (2-2-3); I, II, III. Further exploration of different mediums and direction towards an individual approach. Painting from a variety of subjects; on technical investigation and creative interpretation emphasized.

ART 514. Painting Techniques IV. (2-2-3); I, II, III. Experiences leading toward individual achievements in styles and techniques.

ART 521. Art Workshop. (3-3-3); I, II, III. Participation in art activities according to individual needs.

ART 551. Printmaking III. (2-2-3); I, II, III. Prerequisite: ART 251 and 351. Advanced studio in printmaking. Emphasis on the processes of etching and engraving.

ART 555. Advanced Art Problems. (1 to 6 hrs.); I, II, III. Prerequisite: permission of the department required. A studio course involving research in an art area of the student's choice.

ART 583. Photographic Design III. (2-2-3); I, II. Prerequisites: ART 383 and permission of the department. Individual problems in photographic design.

ART 594. Sculpture III. (2-2-4); I, II. Prerequisites: ART 294 and 394. Advanced problems in sculpture involving a combination of materials and their uniqueness as media.

BIOLOGY

BIOL 100. Orientation to Biological and Environmental Sciences Programs. (1-0-1); I. Prerequisite: enrollment or interest in programs in the Department of Biological and Environmental Sciences. The importance of the academic advisor, the structure of departmental programs, student career-oriented organizations, career selection, program requirements, and applications to professional/graduate schools. Required of all departmental freshmen and new departmental major and area students. K credit.

BIOL 105. Introduction to Biological Sciences. (3-0-3); I, II, III. Fundamental life processes: photosynthesis, respiration, reproduction, growth, and evolution. Emphasis on man. NOT acceptable for biology majors.

BIOL 150. Introductory Plant Science. (2-2-3); I. Structure, growth, reproduction, and ecology of plants. Emphasis on cultivated plants and agriculture applications. (Course will NOT be accepted for biology majors and minors.)

BIOL 199. Selected Workshop Topics. (1 to 4 hrs.); on demand. Prerequisites: variable. Workshops in various biological and environmental subjects presented periodically, based on need. Usually hands-on, experimental, and/or innovative, these workshops supplement various programs in the biological and environmental sciences or other disciplines. Individual credit towards degree programs must be approved by the student's advisor.

BIOL 206. Biological Etymology. (2-0-2); I, II. Root-concepts of terms necessary for a better understanding of the biological sciences.

BIOL 207. Biological Illustration. (3-0-3); II. Techniques of representation with pen and ink, blackboard, and photography; illustrative procedure for classroom and publication.

BIOL 208. Invertebrate Zoology. (2-2-3); I, III. Basic principles: morphology, physiology, embryology, composition, and metabolism; general characteristics, life histories, taxonomy, ecology, and evolution of the invertebrates.

BIOL 209. Vertebrate Zoology. (2-2-3); II, III. Prerequisite: BIOL 208. General characteristics, anatomy, physiology, taxonomy, ecology, and evolution of the vertebrates.

BIOL 215. General Botany. (2-4-4); II, III. Structure and physiology of vegetative and reproductive plant organs; introduction to plant genetics and plant kingdom in terms of structure, ecology, and evolution.

BIOL 217. Elementary Medical Microbiology. (3-2-4); II, III. An elementary microbiology course for students interested in understanding the characteristics and activities of microorganisms and their relationship to health and disease. Course will NOT be accepted as credit for biology majors.

BIOL 301. Survey of Biochemistry. (3-0-3); I in alternate years. Prerequisite: CHEM 201. Chemistry of simple and complex biomolecules such as amino acids, proteins, carbohydrates, lipids, and nucleic acids. Biosynthesis and metabolic cycles; gene composition (DNA, RNA, etc.). Primarily for students in applied sciences and not for majors or minors in chemistry or biology. See CHEM 301.

BIOL 301A. Survey of Biochemistry Laboratory. (0-2-1); I in alternate years. Corequisite: BIOL 301. Laboratory for BIOL 301. See CHEM 301A.

BIOL 304. Genetics. (2-2-3); I, II. Prerequisites: BIOL 209 and 215. Mendelism, chromosomes and heredity, gene theory, cytological and physiological analyses, and population genetics.

BIOL 313. Economic Botany. (3 hours credit). Wood products, plant fibers, latex products, pectins, gums, resin, tannins, dyes, essential oils, medicinals, insecticides, tobacco, oils, fats, waxes, food and beverage plants. Three lecture-discussion-demonstration hours per week. (Correspondence only.)

BIOL 317. Principles of Microbiology. (2-4-4); I, II, III. Prerequisites: BIOL 208 and CHEM 112-112-A. Fundamental and applied aspects of microbiology. Morphology, metabolism, genetics, taxonomy, and immunology emphasized. Medical and environmental microbiology laboratory techniques stressed.

BIOL 318. Local Flora. (1-4-3); I*. Prerequisite: BIOL 215. Identification and classification of plants native to the area. Collection and herbarium techniques.

BIOL 319. Immunology and Serology. (2-2-3); II. Prerequisite: BIOL 317. Lecture material provides a basic, yet thorough, understanding of immunological and serological principles. The laboratory enhances student abilities in serological techniques.

BIOL 320. Basic Microtechniques. (0-4-2); on demand. Prerequisites: BIOL 209 and CHEM 111-111-A. Techniques for preparing plant and animal tissues for microscopic study; preparation of microscopic slides.

BIOL 331. Human Anatomy. (3-0-3); I, II, III. Prerequisite: BIOL 105 or equivalent or consent of instructor. Human organism with emphasis on gross morphology. Course will NOT be accepted as credit for biology majors.

BIOL 332. Human Physiology. (3-0-3); I, II, III. Prerequisite: BIOL 331 or equivalent. Physiology of the various systems of the human body as particularly related to health. Course will NOT be accepted as credit for biology majors.

BIOL 333. Laboratory for Human Physiology. (0-2-1); I, II, III. Prerequisites: BIOL 332 or equivalent (may be taken concurrently). Fundamental physiological principles with an emphasis on laboratory technique, equipment usage, and clinical applications. Course will NOT be accepted as credit for biology majors.

BIOL 334. Entomology. (2-2-3); II*. Prerequisite: BIOL 208. General structure of insects, life histories, common orders and families; insects in relation to man. Insect collection required.

BIOL 336. Pathophysiology. (4-0-4); II. Prerequisites: BIOL 217, 332, and CHEM 201-201A or equivalents. Dynamic aspects of disease and disruption of normal physiology. Correlates anatomy, physiology, and biochemistry and their application to clinical practice.

BIOL 337. Comparative Anatomy. (1-4-3); II. Prerequisite: BIOL 209. Vertebrate structure based on the recognition of morphological deviation in body plans.

BIOL 338. Developmental Biology. (2-2-3); I, II. Prerequisite: BIOL 209. Vertebrate development from gamete formation through the fetal stage; emphasis on comparative structural development.

BIOL 350. Heredity and Society. (3-0-3); on demand. Prerequisite: BIOL 105 or equivalent. Evolutionary processes and intricacies of genetic transmission. Evolution in human thought, experience, and affairs.

BIOL 355. Population, Resources, and Environment. (3-0-3); I, II, III. Human ecology with special emphasis on the relationships between man, his resources, and his environment.

BIOL 356. Environmental Biology. (3-0-3); II, III. Prerequisite: BIOL 355 or consent of instructor. Basic ecological principles, population and community ecology as they apply to current environmental problems. BIOL 357 is a companion course, although either may be taken separately.

BIOL 357. Environmental Testing Methods. (1-4-3); II. Prerequisite: consent of instructor. Methods used in determining water quality and air and noise pollution levels. Techniques of animal and plant population estimation. BIOL 356 is a companion course, although either may be taken separately.

BIOL 380. Cell Biology. (2-2-3); I, II. Prerequisites: BIOL 209 and CHEM 112-112-A. Integration of biological, chemical, and physical aspects of the cell. Emphasis on molecular processes.

BIOL 399. Selected Workshop Topics. (1 to 4 hrs.); on demand. Prerequisites: variable. Workshops in various biological and environmental subjects presented periodically, based on need. Usually hands-on, experimental, and/or innovative, these workshops supplement various programs in the biological and environmental sciences or other disciplines. Individual credit towards degree programs must be approved by the student's advisor.

BIOL 413. Medical Technology Clinical Practicum. (4); III. See Medical Technology Curriculum.

BIOL 414. Medical Technology Clinical Practicum. (4); III. See Medical Technology Curriculum.

BIOL 415. Medical Technology Clinical Practicum. (14); I. See Medical Technology Curriculum.

BIOL 416. Medical Technology Clinical Practicum. (14); II. See Medical Technology Curriculum.

BIOL 471. Seminar in Biological Science. (1-0-1); I, II. Prerequisite: senior standing. Introduction to research and literature in the biological sciences.

BIOL 472. Seminar in Environmental Science. (1-0-1); I, II. Prerequisite: senior standing. Introduction to research and literature in the environmental sciences.

BIOL 476. Special Problems. (1 to 6 hrs.); I, II, III. Independent topics and research in the biological and environmental sciences. Topic must be approved prior to registration.

BIOL 510. Limnology. (1-4-3); I, III*. Prerequisites: BIOL 209, 215, and CHEM 112-112-A. Characteristics of fresh water conditions, including chemical and physical effects, seasonal changes, thermocline development, and pressure in the ecology of aquatic forms.

BIOL 513. Plant Physiology. (2-2-3); on demand. Prerequisites: BIOL 215 and CHEM 112 and 112-A or equivalent. Diffusion, osmosis, cell wall and membrane structure, mineral nutrition, photosynthesis, respiration, macromolecules, photoperiodism, and other aspects of plant growth and development.

BIOL 514. Plant Pathology. (1-4-3); on demand. Prerequisite: BIOL 215. Plant diseases; classification of fungi; diseases caused by rusts, smuts, fleshy fungi, bacteria, and viruses; physiogenic diseases; principles and procedures in the control of plant diseases; resistant varieties and culture control.

BIOL 515. Food Microbiology. (1-4-3); on demand. Prerequisite: BIOL 217 or 317. Microbiology of food production, food spoilage, and food-borne diseases.

BIOL 518. Pathogenic Microbiology. (2-2-3); I. Prerequisite: BIOL 217 or 317. Medically important microorganisms; bacteria and fungi emphasized. The isolation, cultivation, and identification of pathogenic microorganisms from clinical specimens stressed. Antimicrobial susceptibility tests, serological methods, and quality control introduced.

BIOL 519. Virology. (2-2-3); on demand. Prerequisite: BIOL 317 or consent of instructor. Morphology and chemistry of the virus particle; symptoms, identification, and control of more common virus diseases of plants and animals; host-virus relationships; and research methods concerned with viruses.

BIOL 520. Histology. (2-2-3); I. Prerequisite: BIOL 209. Characteristics of tissues and organs of vertebrates.

BIOL 525. Animal Physiology. (2-2-3); I. Prerequisite: CHEM 112 and 112-A or equivalent. Comparison of fundamental physiological processes in representative invertebrate and vertebrate animals. Emphasis placed on comparative energetics and physiological adaptations of organisms to their environment.

BIOL 530. Ichthyology. (1-4-3); II in even years*. Prerequisite: BIOL 209. The anatomy, physiology, taxonomy, ecology, distribution, natural history, and evolution of fish. Emphasis on collection, identification, and classification of those fresh water fish native to eastern North America. Common marine fish of the Atlantic and Gulf coasts.

BIOL 531. Herpetology. (1-4-3); II in odd years*. Prerequisite: BIOL 209. The anatomy, physiology, taxonomy, ecology, distribution, natural history, and evolution of amphibians and reptiles. Emphasis on collection, identification, and classification of those herpetiles found in eastern North America.

BIOL 535. Mammalogy. (1-4-3); I*. Prerequisite: BIOL 209. Mammals of eastern North America with emphasis on mammals of southeastern North America. Taxonomy, adaptation, natural history, and methods of skin preparation.

BIOL 537. Ornithology. (1-4-3); II*. Prerequisite: BIOL 209. Anatomy, physiology, classification, and identification of birds; life histories, habits, migration, and economic importance of native species.

BIOL 540. General Parasitology. (1-4-3); I. Prerequisite: BIOL 209. Protozoan, helminth, and arthropod parasites of man and domestic animals; emphasis on etiology, epidemiology, diagnosis, control, and general life histories of parasites.

BIOL 545. Medical Entomology. (2-2-3); I. Prerequisite: BIOL 334 or consent of instructor. Arthropod vectors of diseases; special emphasis on insects of medical importance. Anatomy, physiology, identification, ecology, and control measures.

BIOL 550. Plant Anatomy. (2-2-3); I. Prerequisite: BIOL 215. Gross and microscopic studies of internal and external structures of vascular plants. The cell, meristem, cambium, primary body, xylem and phloem; roots, stems, and leaves; flowers and fruits; ecological anatomy.

BIOL 551. Plant Natural History. (3-0-3); on demand. Prerequisite: BIOL 105 or equivalent. A survey of major taxonomic groups; emphasis on the natural history of local plants.

BIOL 552. Animal Natural History. (3-0-3); on demand. Prerequisite: BIOL 105 or equivalent. A survey of major taxonomic groups; with emphasis on the natural history of local animals.

BIOL 553. Environmental Education. (2-2-3); III*. Prerequisite: consent of instructor. Distribution and reserve depletion of wildlife, forest, land, water, air, and mineral resources; emphasis on population, pollution, and environment. Field trips to environmentally important areas are required. (Especially designed for in-service and pre-service teachers.)

BIOL 555. Plant Morphology. (2-2-3); II. Prerequisite: BIOL 215. Fossil and living non-vascular plants (except bacteria) and vascular plants; emphasis on ecology, morphology, and evolution.

BIOL 561. Ecology. (2-2-3); II*. Prerequisites: BIOL 209 and 215. Energy flow, biochemical cycles, limiting factors, and ecological regulators at the population, community, and ecosystem levels.

BIOL 574. Experimental Courses. (1 to 4 hrs.); on demand. Prerequisite: variable. These courses are always innovative, perhaps non-traditional, and often specialized offerings designed to enhance programs in the biological and environmental sciences and other disciplines. If successful, individual courses may be assigned a standard number.

BIOL 575. Scanning Electron Microscopy. (1-2-2); II. Brief description of the theory of the electron gun, the magnetic control of the electron pathways, and variations in electron microscope construction. The major portion concerned with preparation of specimens and actual application of the scanning electron microscope.

BIOL 580. History of Science. (3-0-3); III. See SCI 580.

BIOL 595. Biochemistry I. (2-4-4); I. Prerequisite: CHEM 326 and 326A or consent of instructor. Carbohydrates, lipids, and proteins; intermediary metabolism; protein synthesis; enzymology; blood chemistry; bioenergetics; fluid electrolyte balance; and vitamin and steroid chemistry.

BIOL 596. Biochemistry II. (2-4-4); II. Prerequisite: BIOL 595. Continuation of Biochemistry I. Intermediary metabolism of carbohydrates, lipids, proteins, and nucleic acids; function and mechanism of action of enzymes; energetics of living systems; and regulation of life processes.

BIOL 599. Selected Workshop Topics. (1 to 4 hrs.); on demand. Prerequisites: variable. Workshops in various biological and environmental subjects presented periodically, based on need. Usually hands-on, experimental, and/or innovative, these workshops supplement various programs in the biological and environmental sciences or other disciplines. Individual credit towards degree programs must be approved by the student's advisor.

CHEMISTRY

CHEM 100. Basic Chemistry. (3-0-3); I, II, III. A survey of chemistry with emphasis on health and life processes.

CHEM 100A. Basic Chemistry Laboratory. (0-2-1); I, II, III. Must take concurrently with CHEM 100. Laboratory for CHEM 100.

CHEM 101. Survey of General Chemistry. (3-0-3); I, II, III. Atomic theory, oxygen, hydrogen, metals, non-metals, acids, bases, salts, and periodic arrangement of the elements. Primarily for students in the applied sciences.

CHEM 101A. Survey of General Chemistry Laboratory. (0-2-1); I, II, III. Prerequisite or corequisite: CHEM 101. Laboratory for CHEM 101.

CHEM 111. Principles of Chemistry I. (3-0-3); I, II. Prerequisite: MATH 152 (or equivalent) or ACT mathematics score over 15. Stoichiometry and chemical equations, electronic structure of atoms and molecules, periodic relations, gas laws, phases of pure substances and phase equilibria, and properties of solutions. Primarily for natural science and pre-professional students.

CHEM 111A. Principles of Chemistry Laboratory. (0-2-1); I, II. Prerequisite or corequisite: CHEM 111. Laboratory for CHEM 111.

CHEM 112. Principles of Chemistry II. (3-0-3); I, II. Prerequisite: CHEM 111. Continuation of CHEM 111. Kinetics, equilibria, electrochemistry, and descriptive chemistry of selected groups of elements. Primarily for natural science and pre-professional students.

CHEM 112A. Principles of Chemistry II Laboratory. (0-2-1); I, II. Prerequisite or corequisite: CHEM 112. Laboratory for CHEM 112.

CHEM 201. Survey of Organic Chemistry. (3-0-3); I, II, III. Prerequisite: CHEM 101. Major emphasis on introduction to organic chemistry and topics relating to foods, nutrition, and textiles. Primarily for students in the applied sciences.

CHEM 199. Selected Topics. (1 to 6 hrs.); on demand.

CHEM 201A. Survey of Organic Chemistry Laboratory. (0-2-1); I, II, III. Prerequisites: CHEM 101 and 101A. Laboratory for CHEM 201.

CHEM 223. Quantitative Analysis. (1-6-4); II. Prerequisites: CHEM 112 and 112A or consent of instructor. Principles and practice of gravimetric and volumetric analysis. Introduction to potentiometric, coulometric, and colorimetric methods of analysis.

CHEM 299. Selected Topics. (1 to 6 hrs.); on demand.

CHEM 301. Survey of Biochemistry. (3-0-3); I in alternate years. Prerequisite: CHEM 201. Chemistry of simple and complex biomolecules such as amino acids, proteins, carbohydrates, lipids, and nucleic acids. Biosynthesis and metabolic cycles; gene composition (DNA, RNA, etc.). Primarily for students in applied sciences and not for majors or minors in chemistry or biology. See BIOL 301.

CHEM 301A. Survey of Biochemistry Laboratory. (0-2-1); I in alternate years. Corequisite: CHEM 301. Laboratory for CHEM 301. See BIOL 301A.

CHEM 326. Organic Chemistry I. (3-0-3); I, II, III. Prerequisite: CHEM 201 and 201A or 112 and 112A. Homologous series of alkanes, alkenes, alkynes, alicyclic compounds, benzenoid compounds, alcohols, phenols, and molecular structure.

CHEM 326A. Organic Chemistry I Laboratory. (0-2-1); I, II, III. Must take concurrently with CHEM 326. Laboratory for CHEM 326.

CHEM 327. Organic Chemistry II. (3-0-3); I, II, III. Prerequisite: CHEM 326. Continuation of CHEM 326. Aldehydes, ketones, acids, and compounds of biological interest.

CHEM 327A. Organic Chemistry II Laboratory. (0-2-1); I, II, III. Must take concurrently with CHEM 327. Laboratory for CHEM 327.

CHEM 328. Organic Chemistry III. (3-0-3); II in alternate years. Prerequisite: CHEM 327. Special topics of organic chemistry; molecular rearrangements, orbital symmetry, heterocyclics, carbanion reactions, and macromolecules.

CHEM 328A. Organic Chemistry III Laboratory. (0-4-2); II. Must take concurrently with CHEM 328. Laboratory for CHEM 328.

CHEM 350. Inorganic Chemistry. (3-0-3); I in alternate years. Prerequisite: CHEM 112 and 112A. Electronic structure and bonding in inorganic compounds. Physical properties related to structure and acid-base theories.

CHEM 399. Selected Topics (1 to 6 hrs.); on demand.

CHEM 410. Spectral Interpretation in Chemical Analysis. (2-0-2); on demand. Prerequisite: CHEM 326. Methods used in the interpretation of nuclear magnetic resonance spectra, mass spectra, infrared and ultraviolet spectra of inorganic and organic molecules.

CHEM 441. Physical Chemistry I. (3-0-3); I in alternate years. Prerequisites: CHEM 223 or 327; MATH 175; PHYS 202 or 232. Introduction to physical chemistry; thermodynamics, chemical kinetics, and quantum chemistry.

CHEM 442. Physical Chemistry II. (3-2-4); II in alternate years. Prerequisite: CHEM 441; corequisite: MATH 276. Advanced discussion of selected topics from thermodynamics, chemical kinetics, and quantum chemistry.

CHEM 450. Qualitative Organic Analysis. (2-4-4); II in alternate years. Prerequisite: CHEM 327. Qualitative analysis of organic compounds; physical and chemical methods.

CHEM 460. Instrumental Analysis. (2-4-4); I. Prerequisites: CHEM 223 and 326. Theory and practice of infrared, ultra-violet, visible, mass, and nuclear magnetic resonance spectroscopy. Atomic absorption and emission spectroscopy, chromatography, and electrochemical methods of analysis.

CHEM 499. Selected Topics (1 to 6 hrs.); on demand.

COMMUNICATIONS (GENERAL)

COMM 139-539. Cooperative Study. I, II, III. The Department of Communications offers a series of cooperative study courses—COMM 139, 239, 339, 439 and 539—allowing students to alternate semesters of on-campus studies with periods of full-time related work experience. See general section of the catalog for a more complete description of Cooperative Education. Prior application necessary. See restrictions applying to all programs in communications.

COMM 347. Internship. (1 to 3 hrs.); I, II, III. Competency-based practical experience aimed at increasing the proficiency of the student in assigned positions. Prior application necessary. May be repeated. See restrictions applying to all programs in communications.

COMM 447. Internship. (1 to 3 hrs.); I, II, III. Competency-based practical experience aimed at increasing proficiency of the student in the assigned positions. Prior application necessary. May be repeated. See restrictions applying to all programs in communications.

COMM 476. Special Problems. (1 to 3 hrs.); I, II, III. (By prior arrangement with instructor only.) Research on an original project with appropriate written report, within a subject area. May be repeated. See restrictions applying to all programs in communications.

CONSTRUCTION TECHNOLOGY

CON 101. Introduction to Construction Technology. (3-0-3); I. Discussion of various aspects of the construction industry including typical building methods, cost factors, and personnel requirements. Includes residential and commercial building.

CON 102. Surveying I. (1-4-3); II. Basic introduction to surveying methods plus introduction to surveying equipment.

CON 103. Materials Testing. (2-2-3); II. An investigation of materials science including typical physical destructive and nondestructive testing procedures. Reviews of ASTM and other standard agencies.

CON 104. Surveying II. (1-4-3); I. An extension of Surveying I with more in-depth field experience.

CON 201. Properties of Construction Materials. (2-2-3); I. An extension of materials testing with emphasis on heavy and highway construction materials, control standards, and properties expected.

CON 202. Structural Design. (2-2-3); I. Review of typical structural design methods with applied calculation using free body diagrams and other static load methods.

CON 203. Construction Methods and Equipment. (2-2-3); I. An investigation of various construction and building techniques, including traditional and modified methods. Laboratory will include model and prototype development.

CON 204. Codes, Contracts, and Specifications. (3-0-3); II. Exposure to local and state codes and architectural specifications necessary to meet contract requirements. Introduction to various code organizations and file systems.

CON 205. Estimating and Construction Costs. (3-0-3); II. Estimating cost procedures typically used for bid specifications. Current and projected material and construction cost accounting procedures.

CON 206. Construction Management. (3-0-3); II. Supervisory and administrative procedures typical of the construction industries. Personnel requirements and labor arrangements necessary for building contractors.

CORRECTIONS

COR 201. Sociology of Corrections. (3-0-3); I, II. An analysis of the theoretical and philosophical foundations of the American correctional system and an examination of its role in society. Contemporary treatment methods for adult and juvenile offenders will be surveyed.

COR 306. Juvenile Delinquency. (3-0-3); I, II. (See SOC 306.)

COR 310. The Sociology of Deviance. (3-0-3); I. (See SOC 310.)

COR 320. Probation and Parole. (3-0-3); II. An analysis of community treatment in the process of corrections. Emphasis is placed upon the development, organization, administration, operation, and results of probation and parole.

COR 388. History of Corrections. (3-0-3); II. This course provides the student with a background knowledge of the development of ideas and actions taken against those people who have been the objects of society's punishment.

COR 390. Field Experience in Corrections. (0-0-3); I, II, III. Field experience in a jail, detention home, juvenile or adult correctional institution, juvenile or adult probation or parole agency. Required for associate degree only.

COR 401. Criminology. (3-0-3); on demand. (See SOC 401.)

COR 420. Seminar in Criminal Behavior. (3-0-3); II. Specific problems and issues concerning criminal behavior examined in depth. Includes analysis of the causes of particular kinds of behavior, examination of methods of control, and consideration of current approaches to rehabilitation.

COR 450. Research Methodology. (3-0-3); I, II, III. (See SOC 450.)

COR 476. Special Problems. (1 to 3 hrs.); I, II, III. Prerequisite: Consent of instructor and department head. Arranged with the department to study some particular aspect of the field of corrections.

COR 510. Law of Corrections. (3-0-3); I. An analysis of civil law in the United States related to the protection of society, the accused and adjudicated offender, and the administration of justice.

COR 515. Correctional Counseling. (3-0-3); II. The basic concepts and principles involved in interviewing, counseling, and group therapy which are employed in correctional facilities.

COR 590. Practicum in Corrections. (0-0-6); I, II, III. The course consists of practical experience in a jail, detention home, juvenile or adult correctional institution, juvenile or adult probation and parole agency, or other related agency. A minimum of 20 hours per week will be spent at the assigned agency.

DATA PROCESSING

DATA 139. Cooperative Study I. (1 to 8 hrs.); on demand. Work experience in a field relevant to the student's career objectives and academic preparation. Experience is usually analogous to a freshman level course.

DATA 199. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various data processing subjects will be presented periodically to supplement the basic course offerings in data processing. Credit toward degree programs must be approved by the student's advisor.

DATA 201. Introduction to Computers. (3-0-3); I, II, III. Survey of computer systems, including hardware and software features. Machine and program logic. Flow-charting techniques, use of decision tables. Survey of computer languages.

DATA 202. Computer Programming BASIC. (3-0-3); I, II, III. Pre- or co-requisite: DATA 201. Programming the computer using the BASIC language. No prior knowledge is assumed. Emphasis on problem solving and interactive mode programming.

DATA 203. Pascal Programming for Business and Science. (3-0-3); II. Prerequisite: DATA 201. Structured approach to business and scientific programming for beginners. Programming techniques for students wishing to pursue careers in business or science.

DATA 210. Computer Programming ASSEMBLER I. (3-0-3); I, II, III. Prerequisite: DATA 202. Programming stored program computer using ASSEMBLER language. Interpretation of machine code and memory dumps in hexadecimal rotation. The binary instruction set, condition code, mask and branching, looping, and subroutines.

DATA 215. Computer Programming COBOL I. (3-0-3); I. Prerequisite: DATA 210. Practical business applications programming using COBOL language. Card input and printer output used.

DATA 216. Programming in PL/I. (3-0-3); I. Prerequisite: DATA 210. Fundamentals of programming in PL/I computer language. Practical business and scientific applications emphasized in programming assignments.

DATA 239. Cooperative Study II. (1 to 8 hrs.); on demand. Work experience with an extension of exposure gained in DATA 139 or of a nature similar to a sophomore status course.

DATA 260. FORTRAN Programming I. (3-0-3); I, II. Prerequisite: DATA 202. Introduction to FORTRAN programming language. Application of mathematical techniques to problems in programming business, engineering, management, and modeling. Examples employed to provide comprehensive knowledge of the language.

DATA 301. Microcomputers. (3-0-3); I, III. Prerequisite: DATA 202 or equivalent programming course. Hardware and software of microprocessor and its impact on business, industry, education, and home.

DATA 315. Computer Programming COBOL II. (3-0-3); II. Prerequisite: DATA 215. Advanced computer programming using COBOL. Tape and disk file structures and processing emphasized.

DATA 316. Advanced PL/I Programming. (3-0-3); II. Prerequisite: DATA 216. Advanced computer programming using PL/I. Data structures, tape, and disk file structures and processing will be emphasized using business and scientific applications.

DATA 320. Computerized Business Systems. (3-0-3); I. Prerequisite: DATA 215 or 216. Hardware and software specifications, operating systems, programming systems, information theory, development, and use of computerized business applications.

DATA 339. Cooperative Study III. (1 to 8 hrs.); on demand. Work experience with an in-depth exposure representative of the student's academic level and experience analogous to a junior level status.

DATA 399. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various data processing subjects will be presented periodically to supplement the basic course offerings in data processing. Credit toward degree programs must be approved by the student's advisor.

DATA 405. Systems Analysis and Design. (3-0-3); II. Prerequisite: DATA 215. Systems analysis, feasibility studies, economic cost comparisons, systems implementation, the tools of systems analysis.

DATA 439. Cooperative Study IV. (1 to 8 hrs.); on demand. Work experience with an in-depth exposure representative of the student's academic level and experience analogous to a senior level course.

DATA 476. Special Problems in Data Processing. (1 to 3 hrs.); I, II, III. Prerequisite: open to majors and minors in data processing with prior consent of the advisor. This course is an independent study of data processing problems of special interest. Students must present in writing a suggested problem and justification for the study prior to registration. Each request will be considered on its own merit in relation to the special needs of the student.

DATA 515. Data Processing Field Project. (3-0-3); II. Prerequisites: DATA 215 or 216 and permission of instructor. Experience in actual data processing situations outside the classroom; students assigned in University's data processing center and other approved computer facilities.

DATA 516. Educational Data Processing. (3-0-3); III. Basic concepts pertaining to computers. Application in education, research, and administration. Designed primarily for students without previous data processing instruction.

DATA 526. Data Base Management Systems. (3-0-3); II, III. Prerequisite: DATA 320. Data base structures, creation, modification, processing, and physical representation.

DATA 539. Cooperative Study V. (1 to 8 hrs.); on demand. Work experience providing advanced specialized exposure in a career-related position. Available to upper division undergraduate and graduate students.

DATA 599. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various data processing subjects will be presented periodically to supplement the basic course offerings in data processing. Credit toward degree programs must be approved by the student's advisor.

ECONOMICS

ECON 101. Introduction to the American Economy. (3-0-3); I, II. Introduction to fundamental concepts and principles of economics with emphasis on institutions basic to the American economic system. (Cannot be used to satisfy the requirements for the economics major, minor, or option; not open to those who have had ECON 201 or equivalent.)

ECON 139. Cooperative Study I. (1 to 8 hrs.); on demand. Work experience in a field relevant to the student's career objectives and academic preparation. Experience is usually analogous to a freshman level course.

ECON 199. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various economic subjects will be presented periodically to supplement the basic course offerings in economics. Credit toward degree programs must be approved by the student's advisor.

ECON 201. Principles of Economics I. (3-0-3); I, II, III. Theories of income, employment, monetary policy, fiscal policy, the price level, and economic growth.

ECON 202. Principles of Economics II. (3-0-3); I, II, III. Prerequisite: ECON 201. A continuation of ECON 201 with emphasis on the theory of the firm, resource allocation, and international economics.

ECON 239. Cooperative Study II. (1 to 8 hrs.); on demand. Work experience with an extension of exposure gained in ECON 139 or of a nature similar to a sophomore status course.

ECON 302. Labor Economics. (3-0-3); I, II. Prerequisite: ECON 201 or junior standing. Labor management relations, the labor movement, labor legislation, government control and regulation, economic inequality, standards of living, and industrial conflicts.

ECON 305. Comparative Economic Systems. (3-0-3); on demand. Prerequisites: ECON 201 and 202. A study of influential theories of the major economic systems: Capitalism, Marxism, and Communism. Descriptive analysis of the operation of the corresponding economies.

ECON 339. Cooperative Study III. (1 to 8 hrs.); on demand. Work experience with an in-depth exposure representative of the student's academic level and experience analogous to a junior level course.

ECON 350. Microeconomic Theory. (3-0-3); I, II, III. Prerequisites: MATH 160, ECON 201 and 202. Analysis of the behavior of the household and the firm, with emphasis on the role of prices in allocating resources, organizing production, and distributing goods and services.

ECON 389. Honors Seminar in Economics. (3-0-3); on demand. Prerequisite: Membership in university Honors Program. Analysis of contemporary economic problems and policy alternatives. Topics may vary each semester.

ECON 399. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various economic subjects will be presented periodically to supplement the basic course offerings in economics. Credit toward degree programs must be approved by the student's advisor.

ECON 439. Cooperative Study IV. (1 to 8 hrs.); on demand. Work experience with an in-depth exposure representative of the student's academic level and experience analogous to a senior level course.

ECON 476. Special Problems in Economics. (1 to 3 hrs.); I, II, III. Prerequisites: open to majors or minors in economics with prior consent of the instructor. This course is an independent study of economic problems of special interest. Students must present in writing a suggested problem and justification for the study prior to registration. Each request will be considered on its own merit in relation to the special needs of the student.

ECON 500. Mathematical Economics. (3-0-3); I. Prerequisites: MATH 160 and 354. Application of mathematical and statistical techniques to the theory of the firm, market, and national income models.

ECON 501. Environmental Economics. (3-0-3); II. Prerequisites: ECON 201 and 202 or consent of instructor. Analysis of the economic reasons contributing to environmental degradation and exploration of economic policies to reduce this problem. May not be taken for M.B.A. credit.

ECON 503. Urban and Regional Economics. (3-0-3); on demand. Prerequisites: ECON 201 and 202. Analysis of location patterns, land use, urban and regional structure and growth, and development strategies. Emphasis is placed on contemporary problems and possible solutions.

ECON 510. History of Economic Thought. (3-0-3); on demand. Prerequisites: ECON 201 and 202. The origin and development of economic theories from the Mercantilist through modern times.

ECON 539. Cooperative Study V. (1 to 8 hrs.); on demand. Work experience providing advanced specialized exposure in a career-related position. Available to upper division undergraduate and graduate students.

ECON 541. Public Finance. (3-0-3); I. Prerequisites: ECON 201 and 202 or consent of instructor. Public expenditures; public revenue; taxation; public credit; financial administration of government.

ECON 545. Industrial Organization and Public Policy. (3-0-3); on demand. Prerequisites: ECON 201 and 202 or ECON 504. Forms of business combination; the problem of business concentration and monopoly; the role of the regulatory agency; antitrust legislation and interpretation.

ECON 547. International Economics. (3-0-3); I. Prerequisites: ECON 201 and 202 or consent of instructor. International trade theory, international monetary relationships, and the balance of payments. Emphasis is placed on contemporary problems and possible solutions.

ECON 551. Macroeconomic Theory. (3-0-3); I. Prerequisites: ECON 201 and 202 or ECON 504. National income accounting; macroeconomic theories of output determination, employment, inflation, and growth; monetary and fiscal policies to control aggregate economic activity.

ECON 555. Economic Development and Growth. (3-0-3); on demand. Prerequisites: ECON 201 and 202 or consent of instructor. Classical and modern theories of growth and development and their application in both advanced and underdeveloped nations.

ECON 590. Economic Education for Teachers. (3-0-3); on demand. Fundamental economic concepts and their application and integration in education (cannot be used to satisfy requirements for the economics major, minor, or option, nor as an elective in the MBA program).

ECON 599. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various economic subjects will be presented periodically to supplement the basic course offerings in economics. Credit toward degree programs must be approved by the student's advisor.

EDUCATION (ADULT AND CONTINUING)

EDAC 102. Study Skills. (1-0-1); I, II (Each 9-week period). Course is designed to provide special training in the skills and techniques necessary for college level study.

EDAC 199. Selected Topics. (1 to 3 hrs.); I, II, III. Investigation of specific problem areas in the field of study. May be repeated in additional subject areas.

EDAC 299. Workshop. (1 to 3 hrs.); on demand. Workshop for specifically designated task orientation in education. May be repeated in additional subject areas.

EDAC 399. Workshop. (1 to 3 hrs.); on demand. Workshop for specifically designated task orientation in education. May be repeated in additional subject areas.

EDAC 499. Workshop. (1 to 3 hrs.); on demand. Workshop for specifically designated task orientation in education. May be repeated in additional subject areas.

EDAC 554. Principles of Adult and Continuing Education. (3-0-3); I, II. Overview of adult education; historical development; psychological and sociological basis of adult learning; trends and major issues in adult education; and principles of teaching adults.

EDAC 599. Workshop. (1 to 3 hrs.); I, II, III. Workshop for specifically designated task orientation in education. May be repeated in additional subject areas. Maximum of six semester hours may be earned under this course number.

EDUCATION (EARLY CHILDHOOD)

EDEC 199. Workshop. (1 to 3 hrs.); I, II, III. Workshop for specifically designated task orientation in early childhood education. Conferences with instructor by arrangement. Maximum of six semester hours may be earned under this course number.

EDEC 276. Independent Study. (1 to 3 hrs.); I, II, III. Directed study of specific areas in early childhood education. Conferences with instructor by arrangement. Maximum of six semester hours may be earned under this course number.

EDEC 399. Workshop. (1 to 3 hrs.); I, II, III. Continuation of EDEC 199.

EDEC 470. Research Problems. (1 to 3 hrs.); I, II, III. Independent research study of a professional nature. Conferences with instructor by arrangement. Maximum of six semester hours may be earned under this course number.

EDEC 527. The Pre-School Child. (3-1-3); I, II, III. Principles of growth and development from prenatal period to age six. Focuses attention on learning experiences for nursery and kindergarten age children. (Laboratory experiences an integral part of course.)

EDEC 528. Activities and Materials in Early Childhood. (3-1-3); I, II, III. Investigates needs and interests of early childhood and provides opportunities to explore objectives, materials, and techniques of instruction for this age group. (Laboratory experiences an integral part of course.)

EDEC 529. Practicum in Early Childhood Education. (1-4-4); I, II, III. Prerequisites: EDEC 527, 528, and admission to teacher education program. Students are assigned to pre-school classroom for observation, participation, and teaching. On-campus seminars are held weekly. (Application made through coordinator of professional laboratory experiences.)

EDEC 599. Workshop. (1 to 3 hrs.); I, II, III. Prerequisites: upper division or graduate classification. Workshop for specifically designated task orientation in education. May be repeated in additional subject areas. Maximum of six semester hours may be earned under this course number.

EDUCATION (ELEMENTARY)

EDEL 110. Developmental Reading I. (2-2-3); I, II, III. Provides diagnostic independent guided improvement of reading skills. Vocabulary and improved comprehension skills are stressed.

EDEL 111. Developmental Reading II. (2-2-3); I, II, III. Prerequisite: EDEL 110. Continuation of Developmental Reading I.

EDEL 112. Reading English as a Second Language. (2-2-3); I, II, III. Individualized program for teaching vocabulary and reading skills to the non-English speaking student.

EDEL 199. Workshop. (1 to 3 hrs.); I, II, III. Workshop for specifically designated task orientation in elementary education. Maximum of six semester hours may be earned under this course number.

EDEL 228. Literature and Materials for Children. (3-0-3); I, II, III. Survey of children's literature from its beginning to present time; all types of literature except textbooks. Various types of media for preschool through grade six. Emphasis on criteria for evaluation and aids for selection of materials; reading interests, needs, and abilities of children.

EDEL 250. Practicum. (1 to 6 hrs.); I, II, III. Experiences include placement in either a classroom or simulated classroom laboratory.

EDEL 276. Independent Study. (1 to 3 hrs.); I, II, III. Directed study of specific areas in elementary education. Topic must be approved in advance by instructor. Conferences with instructor by arrangement.

EDEL 301. Media Strategies. (2-2-2); I, II. Introduction to educational media. Principles of utilization and hands-on experience with hardware and software. Basic production projects also required.

EDEL 321. Teaching of Arithmetic. (2-2-3); I, II, III. Prerequisites: admission to the teacher education program and MATH 231 or corequisite course. Essential number concepts; emphasis on functional arithmetic and its application. (Laboratory experiences are integral part of course.)

EDEL 322. Teaching Social Studies in the Elementary School. (3-0-3); I, II, III. Prerequisite: admission to teacher education program. Scope and sequence of skills and concepts of social studies program in the elementary school. Emphasis given to instructional methods and recent trends in social studies area. (Laboratory experiences are integral part of course.)

EDEL 323. Language Arts for the Elementary School. (3-0-3); I, II, III. Prerequisite: admission to teacher education program. Role of language arts program in elementary school curriculum. Identification of language arts skills and subsequent teaching techniques of skills will be central to course. Skills emphasized are listening, speaking, writing, and spelling. (Laboratory experiences an integral part of course.)

EDEL 333. Fundamentals of Elementary Education. (3-1-4); I, III. Prerequisites: admission to teacher education program and approval of head of the department. Introduction to content areas of the elementary curriculum, including teaching methods and materials. Emphasis is placed on the role of special teachers in the total school program.

EDEL 336. Foundations of Reading. (2-2-3); I, II, III. Prerequisite: admission to teacher education program. Materials and methods of teaching basic reading skills in grades K-8. Students are taught how to teach subskills of word attack, vocabulary development, and comprehension. (Laboratory experiences an integral part of course.)

EDEL 337. Reading Strategies for the Elementary Teacher. (2-2-3); I, II, III. Prerequisites: admission to teacher education program and EDEL 336 or equivalent. Materials and methods of teaching advanced reading skills in grades K-8. Students are taught how to teach skills needed for content area reading. Various types of grouping techniques stressed. (Laboratory experiences an integral part of this course.)

EDEL 410. Human Growth and Development II. (3-0-3); III. Prerequisites: EDF 207, 211, and admission to teacher education program. (When taken separately, approval of head of the department is required.) Continuation of EDF 211.

EDEL 425. Supervised Teaching Practicum—Elementary. (4 to 12 hrs.); I, II. See prerequisites for admission to professional semester. Student is assigned to student teaching center during which time observation, participation, and

student teaching are done. Teaching may be done in any elementary grade. Special conferences with supervising teacher, attendance, and participation in faculty meetings and out-of-school activities required.

EDEL 427. Professional Semester (Elementary). (9-30-15); I, II. Professional semester is comprised of EDEL 410, and 425. Prerequisites: EDF 207, 211, EDEL 301, 321, 322, 323, 336 or 337, EDSP 230. Admission to teacher education program; attainment of a scholastic standing of 2.50 on a 4.0 scale on all residence courses at Morehead State at time student teaching begins; a minimum standing of 2.5 on a 4.0 scale on all work completed in area of concentration, major(s), and minor(s); completion of a minimum of 90 semester hours of work; at least one semester of residence credit earned at this university, and approval of the university Teacher Education Council. Twelve weeks spent in student teaching and four weeks spent in class work. National Teacher Exam required. (Application made through coordinator of professional laboratory experiences.)

EDEL 470. Research Problems. (1 to 3 hrs.); I, II, III. Independent research study of a professional nature. Conferences with instructor by arrangement. Maximum of six semester hours may be earned under this course number.

EDEL 516. Educational Data Processing. (3-0-0); II. Introduction to computers. Role of computer and educational uses of computers presented in broad context. Instructional mode will be classroom presentation and "hands-on" experience with time-sharing and batch-process computing using the PRIME 550/750 computing systems.

EDEL 562. Remedial Reading. (2-2-3); I, III. Prerequisite: EDEL 336 or equivalent course. Materials, methods of diagnosing and treating reading difficulties. (Laboratory experiences an integral part of course.)

EDEL 599. Workshop. (1 to 3 hrs.); I, II, III. Prerequisite: upper division or graduate classification. Workshop for specifically designated task orientation in education. May be repeated in additional subject areas. Maximum of six semester hours may be earned under this course number.

EDUCATION (FOUNDATIONS)

EDF 207. Foundation of Education. (3-0-3); I, II, III. Prerequisite: sophomore standing. Orientation for student considering teaching as a career. Course will survey the scientific, historic, philosophic, and social foundations of the teaching profession. (Laboratory experiences an integral part of course.)

EDF 211. Human Growth and Development. (3-0-3); I, II, III. Prerequisite: PSY 154. Survey of developmental patterns from birth to adulthood and their implications for elementary and secondary teachers. (Laboratory experiences an integral part of course.)

EDF 311. Learning Theories in the Classroom. (3-0-3); I, II, III. Study of the principles of learning and motivation as they are applied in the classroom. (Laboratory experiences an integral part of course.)

EDF 360. History of Education. (3-0-3); II. Education in ancient, medieval, and modern periods; early American backgrounds; early campaigns for improvement of instruction and teacher training; development of present practices; great educators of each period and their contribution.

EDUCATION (GUIDANCE AND COUNSELING)

EDGC 105. Career Planning. (2-0-2); I, II. Systematic information and guidance in career development provided which assists the student in making a realistic career decision consistent with needs, abilities, attitudes, and personal goals.

EDGC 199. Selected Topics. (1 to 3 hrs.); I, II, III. Investigation of specific problem areas in field of study. May be repeated in additional subject areas.

EDGC 299. Workshop. (1 to 3 hrs.); on demand. Workshop for specifically designated task orientation in education. May be repeated in additional subject areas.

EDGC 364. Career and Vocational Guidance. (3-0-3); II. Study of concept of career education, and exploration of emerging role of the guidance counselor in regard to problems that exist in present educational system; innovative concept of career education; counselor and classroom teacher's responsibility within the framework of career education; evaluation of career education and exploring future implications for developing positive attitudes and values for work for all students including the disadvantaged and handicapped.

EDGC 399. Workshop. (1 to 3 hrs.); on demand. Workshop for specifically designated task orientation in education. May be repeated in additional subject areas.

EDGC 499. Workshop. (1 to 3 hrs.); on demand. Workshop for specifically designated task orientation in education. May be repeated in additional subject areas.

EDGC 566. Introduction to Vocational Rehabilitation Services. (3-0-3); I, III. History of vocational rehabilitation movement, legislative efforts, and impact; overview of the rehabilitation process, roles of rehabilitation professionals in various rehabilitation settings, discussion of values and ethics, and examination of professional organizations for rehabilitation personnel.

EDGC 567. Rehabilitation of Special Groups. (3-0-3); I, III. Prerequisite: EDGC 566 or permission of instructor. In-depth study of various target populations in need of rehabilitation services, including physically disabled, public offenders, delinquents, drug addicts, aged, mentally ill, mentally retarded, and the educationally, socially, and culturally disadvantaged.

EDGC 580. Measurement Principles and Techniques. (3-0-3); I, III. Identification of educational objectives associated with test construction; table specifications; elementary statistics; testing and nontesting procedures. Investigations of major types of tests; administration, scoring, and interpretation of test results.

EDGC 599. Workshop. (1 to 3 hrs.); I, II, III. Workshop for specifically designated task orientation in education. May be repeated in additional subject areas. Maximum of six semester hours may be earned under this course number.

EDUCATION (SECONDARY)

EDSE 199. Workshop. (1 to 3 hrs.); I, II, III. Workshop for specifically designated task orientation in secondary education. Maximum of six semester hours may be earned under this course number.

EDSE 276. Independent Study. (1 to 3 hrs.); I, II, III. Directed study of specific areas in secondary education. Conferences with instructor by arrangement. Maximum of six semester hours may be earned under this course number.

EDSE 312. Teaching Skills and Media. (2-2-3); I, II, III. Prerequisites: admission to teacher education program and EDF 311. Introduction to classroom teaching skills and methods. The instructional process is covered with emphasis upon lesson preparation and presentation, including mediation of instruction; long-term and short-term instructional planning; human interaction skills.

EDSE 399. Workshop. (1 to 3 hrs.); I, II, III. Continuation of EDSE 199.

EDSE 415. Teacher in Today's Schools. (3-0-3); I, II. Prerequisite: admission to professional semester. An application of previous learning in development of an instructional unit taught during student teaching; an orientation to student teaching experience; miscellaneous activities relating to areas of teacher concerns, i.e., school law, pupil accounting, professional organizations, principles of classroom organization and management; and human interaction skills.

EDSE 416. Student Teaching. (12-0-12); I, II. Prerequisite: admission to professional semester. Classroom component comprised of preparation for student teaching followed by placement in a student teaching center during which time observation, participation, and student teaching are done. Special conferences with supervising teacher, attendance and participation in faculty meetings, co-curricular activities, and the National Teacher Exam required. (Application made through coordinator of professional laboratory experiences.)

EDSE 470. Research Problems. (1 to 3 hrs.); I, II, III. Independent research study of a professional nature. Conferences with instructor by arrangement. Maximum of six semester hours may be earned under this course number.

EDSE 516. Educational Data Processing. (3-0-3); II. This course provides introductory familiarization with computers. The role of the computer and the educational uses of computer are presented in a broad context. Instructional mode will be classroom presentation and "hands-on" experience with time-sharing and batch-process computing using the PRIME 550/750 computing system.

EDSE 576. Reading in the Secondary School. (2-2-3); I, II, III. Emphasis is centered around reading instruction in junior high and high school. Materials are included for instruction and studies of administrative problems involved. (Laboratory experiences an integral part of course.)

EDSE 599. Workshop. (1 to 3 hrs.); I, II, III. Prerequisites: upper division or graduate classification. Workshop for specifically designated task orientation in education. May be repeated in additional subject areas. Maximum of six semester hours may be earned under this course number.

EDUCATION (SPECIAL)

EDSP 199. Workshop. (1 to 3 hrs.); I, II, III. Workshop for specifically designated task orientation in special education. May be repeated in additional subject areas. Maximum of six semester hours may be earned under this course number.

EDSP 230. Education and Exceptional Children. (3-0-3); I, II. Prerequisite: PSY 154. Procedures for identification, education, and treatment of exceptional children—the gifted, those with low intelligence, and handicapped—including behavioral deviations.

EDSP 231. Field Experiences. (0-6-3); I, II. Involves the student in on-site experiences in a variety of schools, institutions, and agencies providing services to the trainable mentally handicapped. Should be taken concurrently with EDSP 230.

EDSP 276. Independent Study. (1 to 3 hrs.); I, II, III. Independent study of a professional problem in special education.

EDSP 320. Introduction to Corrective Speech. (3-0-3); I, II. Introductory course in speech correction for classroom teacher. (Same as SPCH 320.)

EDSP 332. Teaching the Exceptional Student. (2-2-2); I, II. Prerequisites: admission to teacher education program and EDF 311. Describes physical and behavioral characteristics of exceptional students and their educational needs. Describes social and legal responsibilities regarding exceptional persons and

reviews educational practices and appropriateness for specific exceptional behavior.

EDSP 350. Characteristics of Individuals with Mental Retardation and Orthopedic Handicaps. (2-2-3); I, II. Prerequisite: EDSP 230 or 601. Biological, physical, etiological, psychological, and educational characteristics of individuals demonstrating significant deviations in mental or physical behavior. The likely needs of these mentally retarded and orthopedically impaired individuals discussed in light of their presenting problems.

EDSP 399. Workshop. (1 to 3 hrs.); I, II, III. Workshop for specifically designated task orientation in special education. May be repeated in additional subject areas. Maximum of six semester hours may be earned under this course number.

EDSP 435. Supervised Teaching Practicum. (4 to 12 hrs.); I, II, III. Prerequisites: admission to teacher education program; attainment of scholastic standing of 2.50 on residence courses at Morehead State; minimum standing of 2.5 on all work completed in area of concentration, major(s), and minor(s); minimum of one semester residence; and approval of the university Teacher Education Council. Placement in public school special education and elementary education classrooms on the basis of one week placement for each credit hour unit. (Application made through coordinator of professional laboratory experiences.)

EDSP 436. Supervised Teaching Practicum. (4 to 12 hrs.); I, II, III. Prerequisites: admission to the teacher education program; attainment of a scholastic standing of 2.50 on residence courses at MSU; minimum standing of 2.5 on all work completed in area of concentration, major(s), and minor(s); minimum of one semester residence; and approval of the university Teacher Education Council. Placement in a public school setting with trainable mentally handicapped students and in regular elementary classrooms on the basis of one week placement for each credit hour unit. (Application made through coordinator of professional laboratory experiences.)

EDSP 470. Research Problems. (1 to 3 hrs.); I, II, III. Independent research study of a professional problem. Conferences with instructor by arrangement.

EDSP 537. Educational Assessment of Exceptional Children. (2-2-3); I, III. Assessment methodology relating to identification of behavioral deficits and excesses of students which lessen their performance level in one or more core academic subject areas.

EDSP 547. The Trainable Mentally Handicapped. (3-0-3); II. Prerequisites: EDSP 230 and 550. Etiology and symptomatology of trainable mentally handicapped children and assessment procedures appropriate with children who are severely to profoundly handicapped.

EDSP 550. Characteristics of Individuals with Learning Disabilities and Behavior Disorders. (2-2-3); I, III. Prerequisite: EDSP 230 or 601. Biological, physical, etiological, psychological, and educational characteristics of individuals demonstrating significant deviations in learning and behavior disorders. The likely needs of learning disabled and behavior disordered individuals discussed in light of their presenting problems.

EDSP 551. Curriculum for Pre-School Exceptional Children. (2-2-3); II, III. Prerequisites: EDSP 230 and 550. Designed to prepare the teacher to work with pre-school children having handicapping conditions. Curriculum procedures involving perpetual-motor activities, prosthetic devices, and system approaches in special education featured.

EDSP 552. Learning Disabilities. (3-0-3); III. Examination of psychological, medical, and educational literature involved with survey, clinical, and experimental work concerning a specific learning disorder.

EDSP 553. Language Arts for Exceptional Students. (2-2-3); I, III. Prerequisites: EDSP 230, 350, 550 and 537 or consent of instructor. Designed to prepare the teacher of exceptional children in curriculum development and specialized procedures for teaching language arts, including reading, spelling, handwriting, language, and written composition.

EDSP 555. Prescriptive Teaching for Children with Learning and Behavior Problems. (2-2-3); I, III. Prerequisite: EDSP 230, 350, 537, 550 and 553 or 557, or consent of instructor. Transfer of educational assessment data into behavioral objectives, instructional planning for implementing such objectives, behavior management, techniques, methods and materials for instruction, and formative and terminal evaluation techniques for individuals with learning and behavior problems.

EDSP 556. Teaching the Trainable Mentally Handicapped. (2-2-3); II. Prerequisites: EDSP 547 and 550. Application of methods and materials for teaching trainable mentally handicapped. Construction and use of instructional aids to be used with handicapped individual.

EDSP 557. Content Areas and Career Preparation for Exceptional Students. (2-2-3); I, III. Prerequisites: EDSP 230, 350, 537 and 550 or consent of instructor. Designed to prepare teacher of exceptional children in curriculum development and specialized procedures for teaching mathematics, content areas, and preparing students for vocations.

EDSP 558. Learning Disabilities Methodology. (2-2-3); III. Prerequisite: EDSP 552. Application of materials and methods (including construction of instructional aids) for teaching student with learning disabilities.

EDSP 581. Educational Statistics. (2-2-3); II, III. Introduction of statistical and graphical methods to educational and psychological logical data. Includes areas of descriptive and inferential statistics that apply to educational research.

EDSP 599. Workshop. (One to three hours); I, II, III. Supervised practice in working in specific areas of special education.

EDUCATION (PROFESSIONAL)

EDUC 582. Discipline and Classroom Management. (3-0-3); I, II, III. Designed to provide assistance in establishing an organized, well-managed classroom. Emphasis on available options and alternatives in dealing with disruptive student in classroom.

ELECTRICITY-ELECTRONICS TECHNOLOGY

EET 140. Basic Electricity. (2-2-3); I, II. Series and parallel d-c circuits, meters, magnetism, and a-c circuits with inductance, capacitance, transformers, motors, and generators. Not recommended for electricity or electronics technology majors.

EET 141. Electrical Circuits. (2-2-3); I, II. Introduction to direct and alternating current circuits, including resistive, inductive, and capacitive components, reactance, and resonance.

EET 240. Residential Wiring. (2-2-3); I, II. Comprehensive study of latest National Electric Code and its application to theory, plans, specifications, and installation.

EET 241. Circuit Analysis. (3-0-3); II. Prerequisite: EET 141. Mathematical analysis of d-c and a-c circuits using Kirchhoff's laws, Thevenin's, Norton's, and Millman's theorems, determinants, polar-rectangular conversions, and impedance and admittance vectors.

EET 242. Transistors and Semiconductors. (2-2-3); I. Prerequisite: EET 141 or consent of the instructor. Physical properties, models, and basic circuit design of transistor and semiconductor devices.

EET 243. Power Transformers and Distribution. (2-2-3); I. Prerequisites: EET 241 or consent of instructor. Advanced study in industrial type transformers and power distribution systems. Practice in connecting, testing, trouble-shooting, installing, and planning distribution systems and network analysis.

EET 245. Digital Electronics. (2-2-3); II. Prerequisites: EET 141 or consent of the instructor. Functional and logical operation of digital circuits, including logic gates, combinational logic, multivibrators, counters and registers.

EET 338. Radio Operating Practices. (1-0-1); I, II. Basic law, technical operating practices, meter reading, and electronic fundamentals necessary in the operation of a broadcasting facility.

EET 341. Electrical Drafting and Design. (2-2-3); II. Prerequisite: GCT 103 and EET 141 or consent of the instructor. Electrical and mechanical design, documentation, and production of electrical and electronic devices, including printed circuit boards, parts layout final assembly, and packaging.

EET 343. Motors and Generators. (2-2-3); II. Prerequisite: EET 241 or consent of instructor. Advanced study of industrial type electric motors and generators with practice in connecting, operating, and repair.

EET 344. Communications Circuits. (2-2-3); I. Prerequisite: EET 242 or consent of instructor. Radio frequency components and circuits, including passive and active devices, amplifier, oscillator, amplitude modulation, frequency modulation, and detection circuits.

EET 345. Microprocessor Electronics. (2-2-3); I. Prerequisite: EET 245 or consent of instructor. Components and operation of a microprocessor system, including program counters, address counters, accumulators, arithmetic logic units, instruction decoders, controller-sequencers, and registers.

EET 442. Industrial Electronics. (2-2-3); I. Prerequisite: EET 242 or consent of instructor. Industrial transducers and control devices, including special diodes, optoelectronic devices, PNP devices, Unijunction transistors, FETs, SCRs, special ICs, op-amps, programmable controllers, and various other devices.

EET 443. Industrial Electricity. (2-2-3); II. Prerequisites: EET 241 and EET 240 or consent of instructor. The practice and theory of industrial wiring, including the wiring of multi-family dwellings, commercial buildings, industrial plants, and equipment.

EET 444. Communications Systems. (2-2-3); II. Prerequisite: EET 344 or consent of instructor. Radio receivers and transmitters, data communications, television, telephone systems, transmission lines and networks, and antennas.

EET 445. Computer Electronics. (2-2-3); II. Prerequisite: EET 345 or consent of instructor. Computer architecture, addressing modes, instruction sequence, memories, IO systems, AD systems, assemblers, interpreters, and operating systems.

ENGLISH

Honors Seminar in Modern Literature. (3-0-3); on demand. Intensive analytical study of a particular modern literary technique, movement, theme, or author. Restricted to Honors Program students.

NOTE: English 101 and 102 or 192, or English 103 are prerequisites for all other English courses.

ENG 099. Basic Writing Skills. (3-0-3); I, II. A placement composition course with an emphasis on writing sentences and paragraphs. Does not satisfy the general education requirement in written composition.

ENG 101. Composition I. (3-0-3); I, II, III. Development of writing ability, basic problems of structure of language, frequent papers.

ENG 102. Composition II. (3-0-3); I, II, III. Continuation of ENG 101; emphasis on critical thinking; frequent papers, including a short research paper.

ENG 103. Composition III. (3-0-3); I. An advanced placement composition course which covers in one semester the essential material of ENG 101 and 102.

ENG 192. Technical Composition. (3-0-3); I, II, III. Continuation of 101, with emphasis on the writing of scientific-industrial directions, letters, and memos, abstracts, minor project reports, and the use of visual aids.

ENG 202. Introduction to Literature (3-0-3); I, II, III. Extensive reading in poetry, fiction, and drama, with emphasis on basic principles of literary evaluation. (Not recommended for English area, major, or minor students.)

ENG 211. Introduction to World Literature I. (3-0-3); I. Analysis of selected masterpieces of literature from the early Greeks to the Renaissance, with emphasis on ideas basic to the Western tradition.

ENG 212. Introduction to World Literature II. (3-0-3). Analysis of selected masterpieces of literature from the Renaissance to the present, with emphasis on ideas basic to the western tradition.

ENG 215. Structure of English. (3-0-3); on demand. The structures of the English language from the perspective of descriptive and structural linguistics.

ENG 231. English Literature to 1750. (3-0-3); I. A survey of English literature from Beowulf through Dr. Johnson.

ENG 232. English Literature since 1750. (3-0-3); II. A survey of English literature from Wordsworth to the present.

ENG 241. American Writers before 1850. (3-0-3); I. A survey of American literature from its colonial beginnings to Whitman.

ENG 242. American Writers since 1850. (3-0-3); II. A survey of American literature from Whitman to the present.

ENG 293. Creative Writing I. (3-0-3); I, II, III. Study of and practicum in description, narration, exposition, or poetry as literary forms, with extensive practice writing.

ENG 294. Creative Writing II. (3-0-3); I, II, III. Continuation of ENG 293.

ENG 325. Religious Literature of the World. (3-0-3); on demand. The literature of the major religions of the world.

ENG 344. The Short Story and the Novel. (3-0-3); I, II. Study of representative forms of the short story and the novel.

ENG 360. Appalachian Writers. (3-0-3); I. Regional literature including selected works by such major writers of the region as Harriette Arnow, Jesse Stuart, and Wilma Dykeman.

ENG 365. Literature of the South (3-0-3); on demand. Readings in the major representative Southern authors.

ENG 367. Old Testament Literature. (3-0-3); I. A critical study of the history and literature of the Old Testament.

ENG 368. New Testament Literature. (3-0-3); II. A critical study of the history and literature of the New Testament.

ENG 372. Oriental Literature. (3-0-3); on demand. The major literary figures and genres of the literatures of China, Japan, India, Arabia, and Iran.

ENG 393. History of the Language. (3-0-3); annually. The major developments in the evolution of English from an early Germanic dialect to its present form.

ENG 409. American English: Use and Usage. (3-0-3); on demand. A study of the dialects and the effectiveness of the language of the various parts of American society.

ENG 410. Introduction to Science Fiction. (3-0-3); II. Representative science fiction short stories and novels, mostly by British and American authors of the twentieth century; occasional films; independent reading.

ENG 434. Chaucer. (3-0-3); on demand. Study of some of his major works.

ENG 435. Shakespeare. (3-0-3); twice a year. Study of selected histories, comedies, tragedies, and sonnets.

ENG 436. The English Renaissance. (3-0-3); on demand. Selected literature from 1500 to 1600, including works by Skelton, Wyatt and Surrey, Sidney, Spenser, and Shakespeare (excluding his plays).

ENG 441. Neoclassical Writers. (3-0-3); on demand. Representative selections of English literature, including works by Dryden, Pope, Swift, Addison and Steele, and Johnson.

ENG 442. Romantic Writers. (3-0-3); on demand. Representative selections of English literature, including works by Wordsworth, Coleridge, Byron, Shelley, Keats, and the essayists.

ENG 443. Victorian Writers. (3-0-3); on demand. Representative selections of English literature, including works by Browning, Tennyson, Arnold, and Carlyle.

ENG 444. Twentieth Century British Literature. (3-0-3); on demand. Study of modern British poetry, novels, and short stories.

ENG 466. American Poetry. (3-0-3); on demand. The development of American poetry from its beginning to the present, with emphasis on such poets as Bradstreet, Whitman, Dickinson, Frost, Eliot, and Stevens.

ENG 471. European Literature 1100-1600. (3-0-3); on demand. Selected works from such major writers as Dante, Petrarch, Boccaccio, Machiavelli, Erasmus, Montaigne, and Rabelais.

ENG 472. European Literature 1600-1800. (3-0-3); on demand. Selected works from such major writers as Cervantes, Racine, Moliere, Pascal, Voltaire, Diderot, Goethe, and Schiller.

ENG 473. European Literature 1800 to the Present. (3-0-3); on demand. Selected works by such major writers as Chekhov, Dostoyevsky, Proust, Kafka, Mann, and Nabokov.

ENG 499. Seminar: Major Writers. (3-0-3); on demand. Intensive study of one or more major figures in the literature of the world.

ENG 500. Studies in English for Teachers. (3-0-3); I, III. The philosophy, rationale, and content of English in the American junior and senior high schools.

ENG 501. Linguistics: Semantics. (3-0-3); II (alternate years). Presents the problems of meaning as related to referential, distributional, and rational ways of encountering experience.

ENG 502. Non-print Literary Materials for Teachers 7-12. (3-0-3); on demand. Prerequisite: ENG 500 or consent of instructor. Student and faculty demonstrations of teaching the various literary genres; use of such appropriate non-print media as films, cassettes, and tapes to augment teaching effectiveness; and development of meaningful techniques of evaluating secondary school students of literature.

ENG 505. Linguistics: Grammar. (3-0-3); I, II, III. Principles of structural, transformational, generative, and tagmemic grammar.

ENG 510. Programmed Writing and Learning. (3-0-3); on demand. Using, writing, and understanding programmed texts; instruction individualized to the student's particular area of study.

ENG 516. Basic Linguistics for Teachers. (3-0-3); on demand. Application of linguistics principles to writing, reading, and literary comprehension.

ENG 528. Literary Criticism. (3-0-3); on demand. A survey of traditional criticism from the classical period to the twentieth century; or a study of modern criticism; the New Humanists, New Critics, Neo-Aristotelians, and various linguistics structuralists.

ENG 533. English Fiction. (3-0-3); on demand. Development of the English novel from its beginnings to the twentieth century.

ENG 539. Milton. (3-0-3); on demand. Intensive reading of Milton's poetry and major prose.

ENG 544. Folk Literature. (3-0-3); I, II, III. The origin of such primitive literary forms as the proverb, tale, epic, ballad, and folk drama.

ENG 545. Seventeenth Century British Literature. (3-0-3); on demand. English literature 1600-1660; Donne, Jonson.

ENG 552. Early Dramatic Literature. (3-0-3); on demand. Representative dramas from the Greeks to the mid-nineteenth century.

ENG 553. Modern Drama. (3-0-3); on demand. Representative dramas from the advent of realism to the present.

ENG 560. Early American Authors. (3-0-3); on demand. Writings of the American colonial and federal periods.

ENG 562. Nineteenth Century American Fiction. (3-0-3); on demand. The development of American fiction from Charles Brockden Brown to Stephen Crane.

ENG 564. Twentieth Century American Fiction. (3-0-3); on demand. The development of American fiction from 1900 to the present.

ENG 570. Introduction to Film Literature. (3-0-3); I. An introduction to the study of film as literature with extensive reading in the history of film and viewing of selected film classics.

ENG 591. Technical Writing I. (3-0-3); I, II, III. Principles of analysis, process, and definition; progress, recommendation, and research reports; proposals and memoranda; visual aids; transitions, mechanics of clear and precise statement.

ENG 592. Technical Writing II. (3-0-3); I, II, III. Continuation of ENG 591.

ENG 593. Fiction and Poetry Writing I. (3-0-3); II, III. Practicum in sustained writing. Evaluation and marketing of manuscripts.

ENG 594. Fiction and Poetry Writing II. (3-0-3); II, III. Continuation of ENG 593.

ENG 595. A Linguistics Approach to Writing. (3-0-3); I. Language patterns, inherent symbols and their meanings, and tagmemics.

ENG 598. Logical Reasoning for Aptitude Examination. (3-0-3); on demand. Application of the language of logical reasoning and practical judgement in qualitative and quantitative aptitude examinations such as LAST, GRE, NTE, GBAT, GMAT, CTBS, ACT, and SAT. *May not be used as an elective in any English program.*

FINANCE

FIN 139. Cooperative Study I. (1 to 8 hrs.); on demand. Work experience in a field relevant to the student's career objective and academic preparation. Experience is usually analogous to a freshman level course.

FIN 199. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various finance subjects will be presented periodically to supplement the basic course offerings in finance. Credit toward degree programs must be approved by the student's advisor.

FIN 239. Cooperative Study II. (1 to 8 hrs.); on demand. Work experience with an extension of exposure gained in FIN 139 or of a nature similar to a sophomore status course.

FIN 252. Mathematics of Finance. (3-0-3); I, II. Interest annuities, amortization, sinking funds, bond valuation, life insurance.

FIN 264. Personal Finance. (3-0-3); II. Planning personal finance, financial statements, budgeting, managing financial and non-financial assets, taxes, insurance, and estate planning.

FIN 325. Bank Management. (3-0-3); I. Prerequisite: consent of instructor. Organization and operation of the commercial bank.

FIN 339. Cooperative Study III. (1 to 8 hrs.); on demand. Work experience with an in-depth exposure representative of the student's academic level and experience analogous to a junior level status.

FIN 342. Money and Banking. (3-0-3); I. Prerequisite: ECON 201. Origin, development, and functions of money; banking functions and processes; the Federal Reserve System and monetary policy.

FIN 343. Investments. (3-0-3); II. Prerequisite: ECON 201. Investment risks, security analysis, investment policy-making, both individual and institutional.

FIN 360. Business Finance. (3-0-3); I, II, III. Prerequisites: ACCT 282, ECON 202. Financial management, management of cash, receivables, inventories, plant assets, short-term debt, long-term debt, intermediate-term debt, owner's equity.

FIN 399. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various finance subjects will be presented periodically to supplement the basic course offerings in finance. Credit toward degree programs must be approved by the student's advisor.

FIN 407. Principles of Insurance. (3-0-3); I. Prerequisite: ECON 202, junior standing, or permission of instructor. A general course in risk and insurance, including basic insurance concepts, legal principles, property and liability insurance, life and health insurance, and the insurance industry organization and operations.

FIN 439. Cooperative Study IV. (1 to 8 hrs.); on demand. Work experience with an in-depth exposure representative of the student's academic level and experience analogous to a senior level course.

FIN 476. Special Problems in Finance. (1 to 3 hrs.); I, II, III. Prerequisite: Open to majors and minors in finance with prior consent of the instructor. This course is an independent study of finance problems of special interest. Students must present in writing a suggested problem and justification for the study prior to registration. Each request will be considered on its own merit in relation to the special needs of the student.

FIN 539. Cooperative Study V. (1 to 8 hrs.); on demand. Work experience providing advanced specialized exposure in a career-related position. Available to upper division undergraduate and graduate students.

FIN 560. Financial Markets. (3-0-3); I, II. Prerequisite: ECON 201 and 202. Institutional and business factors that influence demand and supply of funds, effect on price movements, detailed analysis of money and capital markets.

FIN 599. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various finance subjects will be presented periodically to supplement the basic course offerings in finance. Credit toward degree programs must be approved by the student's advisor.

FINE ARTS

FNA 160. Appreciation of the Fine Arts. (3-0-3); I, II, III. To make students aware of the relationship of the common core which permeates all the arts.

FNA 187-588. Opera Workshop. (0-2-1); I, II. An introduction to the techniques of musical theatre with emphasis placed on the integration of music and action-dramatic study of operatic roles.

FRENCH

FRN 101. Beginning French I. (3-2-3); I, II. Drill on hearing and speaking; reading of simple texts; basic points of grammar.

FRN 102. Beginning French II. (3-2-3); I, II. Review of grammar; stress on active use of the language; reading, speaking, writing, and understanding.

FRN 201. Intermediate French. (3-0-3); I. Exercises in writing compositions based on readings. Laboratory work designed to complete mastery of basic language patterns and active vocabulary.

FRN 202. Conversation and Composition. (3-0-3); II. Intensive training in correct writing and fluent speech. Subject matter taken from literary selections.

FRN 203. Introduction to France. (3-0-3); I. The elements which have contributed to the culture of France.

FRN 321. Literature of the Middle Ages and Renaissance. (3-0-3); I. An introduction to typical epics, romances, and bourgeois poetry, followed by study of selections from Villon, Marot, Rabelais, the Pleiade, and Montaigne.

FRN 322. Seventeenth-Century Literature. (3-0-3); II. Study of French Classicism through representative plays.

FRN 323. Eighteenth-Century Literature. (3-0-3); I. Development of rationalistic and democratic tendencies as expressed in the writings of the period leading up to the Revolution.

FRN 324. Nineteenth-Century Literature. (3-0-3); II. Examination of representative works illustrating the development of literature from Romanticism to Realism and Symbolism.

FRN 405. Linguistics and Language Teaching. (3-0-3); III. For French majors and minors. A seminar in various foreign languages requiring projects appropriate to the specialty in each.

FRN 435. Twentieth-Century Literature. (3-0-3); on demand. Selected works of recent writers: France, Romains, Gide, Proust, Giraudou, Sartre, and others.

FRN 550. Reading French I. (3-0-3); on demand. Prerequisite: permission of instructor. Intensive practice in reading of the French language, with rapid and correct idiomatic translation as the aim.

FRN 551. Reading French II. (3-0-3); on demand. Prerequisite: FRN 550 or permission of the instructor. Further study of grammar and drill in reading, with emphasis on reading in the student's own subject area.

GEOGRAPHY

GEO 100. Fundamentals of Geography. (3-0-3); I, II, III. Man's varied responses and adjustments to his natural and cultural environment; human activity within major regions of the world. Basic to further study in geography.

GEO 101. Physical Geography. (3-0-3); I, II, III. Physical elements of the earth and their distribution; weather, climate, landforms, earth materials, water resources, and natural vegetation analyzed and interpreted as elements of human habitation; correlated field trips and laboratory studies.

GEO 211. Economic Geography. (3-0-3); I, II. World commodities and their regional distribution. Analysis of land uses, agriculture, manufacturing, and extractive industries against a background of natural cultural environments; consideration of economic factors in current international affairs.

GEO 241. United States and Canada. (3-0-3); I, II. Major land-use regions of the United States and Canada, their physical and cultural landscapes.

GEO 300. World Geography. (3-0-3); I, II, III. A general survey of the human and physical geography of the major regions of the world. Emphasis is on the interaction between man and his environment in various environmental settings.

GEO 310. Australia. (3-0-3); I. Resources of Australia, New Zealand, and islands of the Pacific; significance of position and political connection of these lands.

GEO 319. Middle America. (3-0-3); II. Mexico, the Central American Republics, and the islands of the Caribbean; emphasis upon cultural and historical traditions.

GEO 320. South America. (3-0-3); I. Regional analysis on national and continental basis with treatment of the physical, cultural, and economic characteristics; stress upon prospects of expansion for settlement, development of resources, and growth of industries.

GEO 328. Africa. (3-0-3); on demand. Resources, both natural and cultural; changing political conditions and affiliations of African countries, recognition of, and reasons for, the growing importance of this continent in world affairs.

GEO 331. Europe. (3-0-3); I, II. Geographic factors in the economic, social, and political structure of Europe; emphasis on natural regions, resource distribution, and industrial development.

GEO 341. Appalachia. (3-0-3); I, III. A geographic analysis of the various physical and human elements of the Appalachian Highlands. Emphasis is placed on the relationship of the physical environment to man's activities in the region.

GEO 344. Kentucky. (3-0-3); I, II. Physiographic divisions and subdivisions; interpretations of natural features; occupations and land use; a survey of political units and consideration of traditions and potentialities.

***GEO 349. Cartography I.** (3-0-3); I, II. History of map-making; properties and qualities of maps; characteristics of map projections; construction of basic projections; basic techniques of mapping spatial data.

***GEO 350. Cartography II.** (3-0-3); II. Prerequisite: GEO 349. Selection of source material for the base and body of the map; mechanical reproduction; construction of complex projections; basic aerial photo interpretation; field mapping techniques and practice.

***GEO 360. Physiography of the United States.** (3-0-3); I. Prerequisite: physical geography or geology. Description and detailed analysis of the physiographic provinces. An explanation and interpretation of surface features and their evolution.

***GEO 366. Political Geography.** (3-0-3); II. A study of principles and concepts of political geography and their application to understanding the variation of political phenomena from place to place on earth.

GEO 375. The Teaching of Social Studies. (3-0-3); I, II. (See HIS 375.) (Does not count in major or minor.)

GEO 383. Asia. (3-0-3); on demand. The man-land relations characterizing this large and diverse region. An evaluation of a continent in the midst of change in terms of geographic potentials.

***GEO 390. Weather and Climate.** (3-0-3); I, II. Introduction to the physical elements of weather and climate; classifications of types and their distribution, with particular reference to the effects of climate on the earth's physical and cultural landscapes.

GEO 500. Soviet Union. (3-0-3); on demand. Systematic and regional study, with special attention given to the resource base. Appraisal of the agricultural and industrial strengths of the country; consideration of the effects of governmental policy and economic growth.

GEO 502. Geographic Factors and Concepts. (3-0-3); on demand. A general survey of the various aspects of the field of geography. Designed for beginning teachers and students not having a background for work in geography.

***GEO 505. Conservation of Natural Resources.** (3-0-3); I, II, III. Natural resources basic to human welfare; emphasis on lands, water, minerals, forests, and wildlife, including their relationships.

***GEO 510. Urban Geography.** (3-0-3); II. Origin and development of cities, urban ecology, central place theory, functional classifications, and a consideration of site, situation, and land utilization of selected cities.

***GEO 540. World Manufacturing.** (3-0-3); on demand. Interpretive analysis of the distribution and function of selected manufacturing industries; location theory, trends in regional industrial changes.

GEO 550. Geography for Teachers. (3-0-3); on demand. A study of the basic concepts, materials, and techniques for the teaching of geography.

***GEO 590. Applied Meteorology.** (3-0-3); on demand. Prerequisite: GEO 390. Weather elements, emphasis on meteorological skills; application to industrial, aviation, maritime and military needs.

GEOSCIENCE

GEOS 100. Physical Geology. (0-2-1); I, II. An introductory study of common minerals, rock classes, and topographic and geologic maps.

GEOS 107. Introduction to Geoscience. (3-0-3); I, II, III. A general survey of earth; its astrogeological setting, its fluid portion, its solid part, its active processes, its history, the role of geology in preserving earth's resources. See SCI 107.

GEOS 199. Selected Topics. (1 to 6 hrs.); on demand.

GEOS 200. Coal Mining Geology. (3-0-3); I. Prerequisite: GEOS 100. A study of coal and coal-bearing rocks together with the application of geologic techniques of surface and underground mining.

GEOS 201. Historical Geology. (2-2-3); II.* Prerequisites: GEOS 100 and 107. Physical events in the earth's history; structure of sedimentary facies of each major stratigraphic subdivision; fossil record from the Precambrian period.

GEOS 240. Oceans. (3-0-3); II.* An elective semi-technical course providing a broad general background in the biological, chemical, physical, and geological aspects of oceans and ocean basins; various types of pollution and future economic potentials of the oceans.

GEOS 250. Minerals and Rocks. (2-2-3); on demand.* Principal rock-forming and economic minerals and their occurrences.

GEOS 262. Mineralogy. (2-4-4); I in alternate years. Prerequisites: GEOS 100 or CHEM 102 and 102A or 112 and 112A. Physical and chemical properties of minerals, chemical, optical, and X-ray methods of identification; systematic survey of common mineral groups.

GEOS 276. Geologic Methods. (2-2-3); I in alternate years. Prerequisites: GEOS 201. Emphasis on basic laboratory and field techniques and instruments relevant to geologic studies.

GEOS 299. Selected Topics. (1 to 6 hrs.); on demand.

GEOS 300. Petrology. (2-2-3); II in alternate years. Prerequisite: GEOS 262. Modes of occurrence and origin in igneous and metamorphic rocks in relation to geologic processes; methods of identifying and classifying rocks.

GEOS 301. Economic Geology I (Metals). (3-0-3); on demand.* Prerequisites: GEOS 100 and 107. Formation and occurrence of metallic ore deposits. Economic factors affecting the mining industry.

GEOS 302. Economic Geology II (Non-metals). (3-0-3); on demand.* Prerequisites: GEOS 100 and 107. Formation and occurrence of non-metallic mineral deposits. Methods and equipment used in exploration. Sampling and evaluation of mineral properties. Uses and economic factors.

GEOS 315. Stratigraphy and Sedimentation. (2-4-4); II in alternate years.* Prerequisite: GEOS 201 or 410. Geologic correlation of stratal units; facies analyses, systematic analysis of sedimentary rocks, and biostratigraphic studies.

GEOS 325. Structural Geology. (2-2-3); I in alternate years.* Prerequisites: GEOS 201 and MATH 141 (or its equivalent). Mechanical properties of rocks and dynamics of rock deformation. Folds, faults, joints, cleavage, igneous structures.

GEOS 350. Geomorphology. (2-2-3); on demand. Prerequisite: GEOS 107 or GEO 100. Land surfaces; topographic form and geologic history; morphologic analysis.

GEOS 376. Environmental Geology. (3-0-3); I. Prerequisite: GEOS 100. Man's relationship to the geological environment. Geological hazards; mineral resources and the environment; urban geology.

GEOS 379. Invertebrate Paleontology. (2-4-4); II in alternate years.* Prerequisites: GEOS 201, BIOL 208 or GEOS 410. Invertebrate animals, their morphology, classification, paleoecology, phylogeny, and stratigraphic succession; faunal assemblages and research techniques.

GEOS 399. Selected Topics (1 to 6 hrs.); on demand.

GEOS 410. Geological History of Plants and Animals. (2-2-3); I. Prerequisites: BIOL 208 and 215 or GEOS 201. The evolutionary history of plants and animals throughout geological time.

GEOS 413. Micropaleontology. (2-2-3); on demand.* Prerequisite: GEOS 379. Collection, preparation, microscopic investigation, classification, paleoecology, and stratigraphic succession of microfossils.

GEOS 415. History of Geology. (2-0-2); on demand. Development of geological thought; important men and their contributions to our knowledge of the earth.

GEOS 420. Optical Mineralogy. (2-2-3); on demand. Prerequisite: GEOS 262. Behavior of light in isotropic and anisotropic minerals. Identification of minerals with polarizing microscope.

GEOS 460. Geological Oceanography. (3-0-3); II in alternate years.* Prerequisites: GEOS 315 and 325 or consent of instructor. Marine erosion, transportation and deposition, continental shelves, slopes, and ocean basins; marine environments. Shoreline processes and analyses.

GEOS 499. Selected Topics (1 to 6 hrs.); on demand.

GERMAN

GER 101. Beginning German I. (3-2-3); I, II. Fundamentals of structure: basic vocabulary, reading, writing, pronunciation and some conversation.

GER 102. **Beginning German II.** (3-2-3); I, II. A continuation of GER 101.
 GER 201. **Intermediate German I.** (3-0-3); I. A review of grammar and pronunciation, with emphasis on reading of contemporary writings.

GER 202. **Intermediate German II.** (3-0-3); II. Prerequisite: GER 201. A continuation of GER 201.

GER 203. **Expository German.** (3-0-3); I. Techniques of reading for accurate information in expository writing in the natural and social sciences and the humanities.

GER 301. **Grammar and Conversation.** (3-0-3); II. Further development of language skills. Extensive experience in the language laboratory is required.

GER 302. **Composition and Conversation.** (3-0-3); on demand. A continuation of GER 301 with greater emphasis on stylistics.

GER 303. **Advanced Expository German.** (3-0-2); on demand. Extensive reading in the contributions of the German-speaking world to the fine arts, business, and special and exact sciences.

GER 310. **The German Novelle.** (3-0-3); on demand. The Novelle from Goethe to the present.

GER 311. **German Literature to 1880.** (3-0-3); on demand. A general of German literature from old High German to Hebel and Ludwig.

GER 312. **German Literature since 1880.** (3-0-3); on demand. A survey of German literature from Hauptmann to the present.

GER 320. **German Literature from 1750 to 1800.** (3-0-3); on demand. A survey of the literature of Germany in the latter half of the eighteenth century.

GER 330. **The German Lyric.** (3-0-3); on demand. An intensive study of German lyric poetry from 1730 to the present.

GER 405. **Linguistics and Language Teaching.** (3-0-3); III. For German majors and minors. Seminar for majors or minors in various foreign languages; requires projects appropriate to the specialty of each.

GER 420. **German Drama of the Nineteenth Century.** (3-0-3); on demand. Major representative plays and their background.

GER 440. **Literature of the Twentieth Century.** (3-0-3); on demand. Major modern German writers.

GER 480. **Independent Study.** (3-0-3); on demand. A close reading of selected texts for their literary merit. Open only to students majoring or minoring in German. May be repeated once for credit.

GOVERNMENT

GOVT 101. **International Student Orientation.** (1 hr. credit); I. An informational and orientational course to familiarize the international student with the University and the community.

GOVT 141. **Government of the United States.** (3-0-3); I, II, III. The nature, organization, powers, and functions of the United States government.

GOVT 242. **State and Local Government.** (3-0-3); I, II, III. The nature, organization, powers, and functions of American state and local governments.

GOVT 290. **Introduction to Paralegalism.** (3-0-3); I. Prerequisite: GOVT 141. Introduction to the history, role, and ethical standards of the paralegal, with exposure to the various fields of law encountered in the program.

GOVT 300. **Municipal Government.** (3-0-3). The nature, organization, powers, and functions of American municipal governments.

GOVT 305. **Introduction to Political Behavior.** (3-0-3). Prerequisite: GOVT 141 or consent of the instructor. A study of political personality and attitudes, public opinion, voting behavior, political socialization, and culture as it relates to the overall understanding of the political process.

GOVT 310. **Current World Problems.** (3-0-3). Emphasis on United States domestic and international problems since World War II.

GOVT 315. **Street Law.** (3-0-3). Study of practical criminal and civil law which every citizen should know.

GOVT 330. **Parliamentary Democracies.** (3-0-3); I. Constitutional development, political organization, legislatures, administration, courts of the governments of the United Kingdom, France, and Germany.

GOVT 334. **Soviet Union and Eastern European Governments.** (3-0-3); I. Soviet political system; its contemporary ideological base, governing structures, and political processes; analysis of other governments in Eastern Europe.

GOVT 335. **The Game of Politics.** (3-0-3). A practical approach to the understanding of American government.

GOVT 340. **Public Opinion and Propaganda.** (3-0-3); II. The nature, formation, and role of public opinion, techniques, strategies, and effects of propaganda.

GOVT 343. **American Political Parties.** (3-0-3); I. Nature and role of parties and interest groups; party structure and development; functions of primaries; nomination system and campaign methods; public opinion and policy making.

GOVT 344. **Kentucky Government.** (3-0-3); I. The nature, organization, powers, and functions of Kentucky state government.

GOVT 348. **The Legislative Process.** (3-0-3); II. Prerequisite: GOVT 141 or consent of the instructor. Legislative behavior in the context of the political system; procedures and influences in the formation of public policy.

GOVT 350. **Appalachian Politics.** (3-0-3). A study of the politics and political institutions of the Appalachian region.

GOVT 352. **Survey in Political Theory.** (3-0-3); I. Early political ideas of Greeks, Romans, and Medieval Church; evolution of states and acquisition of sovereignty; contract theory; rise of liberalism, totalitarianism, and Marxist Socialism.

GOVT 360. **United Nations and World Organizations.** (3-0-3); II. Evolution of international organizations, from League of Nations to the United Nations; problems and issues of present world organization.

GOVT 366. **Political Geography.** (3-0-3); II. (See GEO 366.)

GOVT 370. **Pressure Groups and Politics.** (3-0-3); Prerequisite: GOVT 141 or consent of the instructor. Theory of interest groups; the role of interest groups in the political process; group ideology; techniques of political propaganda.

GOVT 375. **The Teaching of Social Studies.** (3-0-3); I. (See HIS 375.) (Does not count in the major or minor.)

GOVT 380. **American Courts and Civil Rights.** (3-0-3); I, II. Prerequisite: GOVT 141 or consent of the instructor. A study of the American court systems, jurisdiction, terminology, and an enumeration of man's rights and responsibilities in a democratic society.

GOVT 390. **Legal Research and Writing.** (3-0-3); II. Prerequisite: GOVT 290. This course provides an in-depth knowledge of the law library and research methods; includes writing legal memoranda and briefs for both trial and appellate practice.

GOVT 435. **Modern Asian Governments.** (3-0-3). Background, development, ideologies, and structure of Asian governments, including Japan, China, India.

GOVT 444. **The American Constitution.** (3-0-3). Prerequisite: GOVT 141, 242, or consent of instructor. Sources of American heritage in the evolution of constitutionalism; interpretation of principles and precedents in such fields as civil rights, federal-state relationships.

GOVT 450. **International Relations.** (3-0-3). Prerequisites: GOVT 141 or consent of the instructor. Survey of interstate relationships in theory and practice; concepts of power and its application; machinery of foreign policy making and enforcement; world politics and law; the world community.

GOVT 470. **American Chief Executives.** (3-0-3); on demand. Prerequisite: GOVT 141, 242, or consent of instructor. Analysis of executive position and leadership in federal, state, and local governments.

GOVT 476. **Special Problems.** (1 to 3 hrs.); on demand. Prerequisite: consent of the instructor. Original research project or readings in a particular subject area.

GOVT 490. **Trial Practice and Preparation.** (3-0-3); I. Prerequisite: GOVT 390. This course includes interviewing and investigating skills, rules of procedure and evidence, and discovery techniques for trial preparation.

GOVT 495. **Legal Internship.** (1 to 6 hrs.); on demand. Prerequisite: GOVT 490. Actual work experience in a law office; experience in law office organization, interviewing clients, research and preparing briefs, assisting in trial preparation, and observing first-hand court procedure.

GOVT 496. **Frankfort Legislative Intern Program.** (15 hrs.) Five months work-study experience with the Kentucky General Assembly. Candidate selection required.

GOVT 505. **Politics of Ecology.** (3-0-3); II. Prerequisite: GOVT 141 or consent of the instructor. A political analysis of the problems of the environmental crises.

GOVT 510. **Law of Corrections.** (3-0-3); on demand. See Corrections 510.

GOVT 540. **Public Administration.** (3-0-3); I. Prerequisite: GOVT 141 or consent of the instructor. Historical evolution; theory of organization and administration; personnel, financial, and legal aspects of public administration.

GOVT 541. **Public Finance.** (3-0-3); I. Prerequisites: ECON 201 and 202. See Economics 541.

GOVT 546. **Public Personnel Administration.** (3-0-3). Prerequisite: GOVT 540 or consent of the instructor. Manpower utilization, concepts, principles, and practice of the merit system; leadership; decision-making process; motivation of public employees.

GOVT 555. **Internship in Public Affairs.** (1 to 6 hrs.); on demand. Prerequisite: consent of the instructor. On-the-job work study experience in government.

GRAPHICS COMMUNICATIONS TECHNOLOGY

GCT 102. **Graphic Arts I.** (1-4-3); I. A survey course covering the broad practices, techniques and problems of the graphic arts industry. Study and experience include history, design and layout, composition methods, image reproduction, screen process and bookcrafts.

GCT 103. **Technical Drawing I.** (1-4-3); I, II. A study of the principles and techniques of communicating ideas by means of graphic representation.

GCT 202. **Graphic Arts II.** (1-4-3); II. Prerequisite: GCT 102 or consent of instructor. An advanced course for students to apply the principles and competencies developed in the initial course. Units include automatic press operation (letter-press and offset), bindery operations, and darkroom procedures for photography and photographic screen process applications to the graphic arts industry.

GCT 203. **Technical Drawing II.** (1-4-3); I, II. Prerequisite: GCT 103. Breadth and depth are derived from the background of principles and techniques developed previously in technical drawing.

GCT 204. **Descriptive geometry.** (2-2-3); I. Prerequisite: GCT 203. The historical and theoretical background for technical drawing and the study of special problems.

GCT 301. **Tool Layout and Design.** (2-2-3); II. The layout and design of machine tool jigs and fixtures; simple banking, forming and piercing dies, and plastics process dies.

GCT 302. Offset Lithography. (1-4-3); II. Prerequisite: GCT 202. The study of the history and fundamentals of photo offset lithography in the graphic arts industry. Experience is achieved in copy (hot or cold type), darkroom procedures (line copy and halftone film developing), stripping/plate making, press operation, and other facets relating to the industry.

GCT 303. Technical Illustration. (2-2-3); II. Prerequisite: GCT 203. A study of the principles, practices and techniques used in industry to describe complex mechanisms.

GCT 305. Housing. (2-2-3); I. Prerequisite: GCT 103 or consent of instructor. Instruction centers around the problems, practices, and techniques of the housing industry, including historical development.

GCT 322. Photography. (1-2-2); I. Introductory course emphasizing the techniques and mechanics of photography as they apply to composition and darkroom procedures. Students will provide their own equipment and supplies (focusing camera, film, and enlarging paper).

GCT 350. Machine Composition I. (1-4-3); on demand. Prerequisite: GCT 202 or consent of instructor. Designed to introduce students to the history and development of linecasting machines while acquainting them with keyboard operation, mechanical processes, slug casting, mechanical adjustments and maintenance.

GCT 351. Graphic Duplication. (1-2-2); II. Prerequisite: for business majors, consent of the instructor; for industrial education majors, GCT 202. A survey of the use of various methods and devices of the graphic arts currently used in the typical office or in-plant reproduction center. Experience will be gained in the preparation of direct and indirect methods of producing graphic images.

GCT 403. Machine Drawing and Design. (2-2-3); II. Prerequisite: GCT 301. Mathematical and graphic solution of problems involving the principles of machine elements. A study of motion of linkages, velocities, and acceleration of points within a link mechanism; layout methods for designing cams, belts, pulleys, gears and gear trains.

GCT 404. Architectural Drawing. (2-2-3); II. Prerequisite: GCT 305. A technical course covering the fundamental principles, techniques, and practices of residential and selected commercial architecture.

GCT 450. Machine Composition II. (1-4-3); on demand. Prerequisite: GCT 350. A follow-up course to GCT 350—Machine Composition I, concentrating on the intricate facets of typesetting as performed by experienced operators in commercial shops or newspapers to simulate an actual industrial experience in the classroom.

HEALTH

HLTH 150. Personal Health. (2-0-2); I, II, III. (Course not accepted as credit toward a major or minor.) Principles and practices of healthful living: personal, family, and community as aspects of health.

HLTH 160. Introduction to Health. (2-0-2); I, II. Foundations of health, physical health, mental health, social health, environmental health.

HLTH 200. Introduction to Driver Education. (3-1-3); I, II, III. Emphasis upon effect of attitudes, emotions, and motivations on behavior. Review of research on accident causation and other relevant research. (Laboratory experiences an integral part of this course.)

HLTH 201. Administration of Driver and Traffic Education. (3-0-3); I, II. Prerequisites: HLTH 200 and 307. Organizational and administrative aspects of driver and traffic education as they relate to total school and other specialized programs. Historical and philosophical aspects, evaluation, related professional organizations, and occupational opportunities.

HLTH 202. Supervision of Safety Education. (3-0-3); I, II. Prerequisite: HLTH 200. Course examines the responsibilities, activities, and problems of administering safety programs; school bus transportation discussed. Thorough examination of operational procedures of safety educational programs on high school, college, city, and state levels discussed.

HLTH 203. Safety and First Aid. (3-0-3); I, II, III. Safety education and accident prevention program in school, industry, and public service; Red Cross Standard, Advanced, and Pre-Instructor First Aid.

HLTH 204. Instructor First Aid. (1-0-1); I, II. Prerequisites: Current Red Cross Advanced First Aid Certificate and permission of instructor. Red Cross First Aid Instructor Training Course.

HLTH 205. Mental Health. (3-0-3); I, II, III. Prerequisite: PSY 154. Models of man, philosophy of life, standards of mental health, social factors in mental illness, stress and its effect, parent-child relations, and school problems.

HLTH 300. Health in the Elementary School. (2-1-2); I, II, III. Prerequisite: admission to teacher education program. Elementary school health program; educational theory and methods as applied to health teaching on elementary school level. (Laboratory experiences an integral part of course.)

HLTH 303. Community Health. (3-0-3); I, II. Principles and practices of health as applied to community; nature of community, problems of community health, community health education.

HLTH 304. Health in the Secondary School. (2-1-2); I, II. Prerequisite: admission to the teacher education program. Secondary school health program, educational theory and method as applied to health teaching on secondary school level. (Laboratory experiences are integral part of course.)

HLTH 306. Methods of Teaching Driver and Traffic Education. (3-0-3); I, II. Prerequisite: HLTH 200. Designed to give the student an understanding of specifics of classroom instruction in various subject matter fields. Selection of presentation and evaluation techniques based on recognized course objectives.

HLTH 307. Intermediate Driver Education. (2-2-3); I, II, III. Prerequisite: HLTH 200. Teaching student how to teach others to drive. Discussion of all levels of organization and appropriate teaching procedure. (Laboratory experiences are integral part of course.)

HLTH 320. Elements of Nutrition. (3-0-3); I, II, III. (Same as HEC 320.)

HLTH 360. Family Health. (3-0-3); I, II, III. Family and family living; nature of family, love, marriage preparation, marriage, family living.

HLTH 400. Advanced Driver Education. (3-0-3); I, II, III. Prerequisites: HLTH 200 and 307. Analysis of psycho-physical problems of human behavior as it relates to safety and driver education.

HLTH 419. Emergency Medical Techniques. (5-1-6); I, II. Prerequisite: HLTH 203. Development of skills in recognition of symptoms of illness and injuries and proper procedures of emergency care. Reliance placed heavily on demonstration and practice as teaching method. (Laboratory experiences are integral part of course.)

HLTH 475. The School Health Program. (3-0-3); I. All aspects of elementary and secondary level school health: philosophy, organization and administration, environment, services, education, evaluation.

HLTH 508. Principles of General School Safety. (3-0-3); I, II. Prerequisite: senior or graduate student. Review of principles and practices in establishing and maintaining a healthful and safe school environment.

HLTH 518. Use and Abuse of Drugs. (3-0-3); I, II, III. Designed to survey field of psychoactive drugs with emphasis on behavioral effects of these agents.

HLTH 576. Special Problems in Health. (1 to 3 hrs.); I, II. Prerequisite: upper division or graduate classification. Designed to meet special needs of individual students. Intensive study of approved specific problems from area of health, physical education, and recreation, under direction of instructor.

HLTH 599. Workshop. (1 to 3 hrs.); I, II, III. Workshop for specifically designated task orientation in health. May be repeated in additional subject areas. Maximum of six semester hours may be earned under this course number.

HISTORY

HIS 130. A History of Mankind. (3-0-3); I. Man throughout history; his socioeconomic, cultural, and political contributions within his environment and his relationship with others. (Open only to elementary and special education majors.)

HIS 131. Intro. to Civilization I. (3-0-3); I, II, III. From early man to the end of the religious wars.

HIS 132. Intro. to Civilization II. (3-0-3); I, II, III. From the Age of Reason to the Atomic Age.

HIS 140. Progress of American Democracy. (3-0-3); II. This course traces the concept of democracy from the frontier in colonial America to the cities of modern times. (Open only to elementary and special education majors.)

HIS 141. Intro. to Early American History. (3-0-3); I, II, III. A survey of the basic tenets of American life from the Age of Discovery to the War Between the States.

HIS 142. Intro. to Recent American History. (3-0-3); I, II, III. A continuation of History 141, culminating with today's social and economic problems.

HIS 324. The New South. (3-0-3); II. A study of the origins of the twentieth century South.

HIS 325. The Old South. (3-0-3); I. The growth of southern sectionalism and the development of regional characteristics.

HIS 326. The Civil War and Reconstruction. (3-0-3); I. The role of the Southern states in the rebirth of the American nation.

HIS 327. The Negro in American History. (3-0-3); I. The origin of African slavery in America to its demise in the Civil War.

HIS 328. The Negro Faces Freedom. (3-0-3); II. The revolt of the American Negro in an effort to make legal freedom an actuality and to gain a position in the life of the nation.

HIS 329. Genealogy and Family History. (3-0-3); I. The techniques of tracing ancestors, combined with a study of the "common man," thus individualizing American history.

HIS 330. Ancient History. (3-0-3); I. The rise of civilization, with emphasis on the cultural contributions of the Greeks and Romans.

HIS 331. Historical Background of the Bible. (3-0-3); I. Consideration of the Bible as the most important single source for the study of ancient Mediterranean history and cultures and the foundation of Western Civilization.

HIS 332. Christianity and Its World. (3-0-3); II. A study of the relationship between Christianity and its environment from its origins to the present.

HIS 333. Medieval Europe. (3-0-3); II. Western man from the collapse of Rome to the Renaissance of the sixteenth century.

HIS 334. The Renaissance and Reformation. (3-0-3); I. A social and intellectual history of the beginning of the modern world.

HIS 335. Revolutionary Europe, 1648-1815. (3-0-3); II. Europe from the Age of Absolutism to the overthrow of the Napoleonic Empire.

HIS 338. Nineteenth Century Europe. (3-0-3); I. The political isms, nationalistic trends, and unification movements leading to World War I.

HIS 342. The Age of Jackson. (3-0-3); II. Analysis of national, political, and social movements of our westward trek, when America sought compromise and found Civil War.

HIS 343. History of Appalachia. (3-0-3); I, II, III. A study in historical perspective, of the people who have resided in and events that have taken place along the spine and slopes of the Appalachian mountains.

HIS 344. A History of Kentucky. (3-0-3); I, II, III. Colonial birth to the creation of the Commonwealth, with emphasis upon its constitutional and social development.

HIS 345. The American Frontier. (3-0-3); II. The Westward Movement in the shaping of American life and institutions.

HIS 346. Violence in America. (3-0-3); II. An analysis of a series of primary and secondary sources that illustrate political, economic, racial, ethnic, personal, and terrorist violence in America.

HIS 347. The American Indian. (3-0-3); I. The historical development of the native Americans from their entrance into this hemisphere down to the present day.

HIS 348. Sports in History. (3-0-3); I, II, III. Beginning with the ancient Greeks and Romans, the course moves through the Middle Ages, the Renaissance, and Reformation to the modern world. The class stresses the development of sports in the United States.

HIS 349. Vietnam and Watergate: Kennedy, Johnson, Nixon. (3-0-3); II. An intensive study of the Vietnam War and the Watergate scandal in the context of domestic and foreign policy developments in America since 1945.

HIS 350. Religion in American History. (3-0-3); II. Religion in all facets of American history; cultural, secular, and institutional. The role of religion in the molding of our nation.

HIS 351. England to 1660. (3-0-3); I. The political, social, and economic institutions of England to the fall of the Puritan Commonwealth.

HIS 352. England Since 1660. (3-0-3); II. A history of England from the Restoration to the rise of the British Commonwealth.

HIS 353. Russia to 1917. (3-0-3); I. Russia from Kievan times to the overthrow of the Romanov dynasty.

HIS 354. Russia since 1917. (3-0-3); II. A detailed history of Soviet Russia from the revolution to the Cold War.

HIS 363. History of Witchcraft. (3-0-3); I, II, III. A survey of witchcraft and the occult from ancient times to the contemporary.

HIS 366. The Middle East. (3-0-3); I. A survey of the Moslem World beginning with the great surge of the eighth century and culminating in the present Middle Eastern situation.

HIS 370. African History. (3-0-3); II. The early African states, the slave trade era, the rise and fall of the Imperial Empires, and post-independence events.

HIS 375. The Teaching of Social Studies. (3-0-3); I. Prerequisite: open only to majors and minors in the social sciences with a minimum of 18 credit hours. A laboratory experience designed to develop methods, techniques, and materials for the teaching of social studies in the secondary schools. (Does not count in a major or minor.)

HIS 379. Latin American History. (3-0-3); II. The Indian background, the rise and fall of the Spanish and Portuguese Empires, and the major events since independence with concentration upon the major states.

HIS 382. War in the Modern World. (3-0-3); I. The origins, course, and results of a century of total war and its effect upon the social, cultural, and economic life of the world.

HIS 385. Technology and America. (3-0-3); II. Technology in the modern world; its development as a response to the social, political, and economic forces.

HIS 387. "Herstory": Womanhood and Civilization. (3-0-3); I. The experiences and thoughts of women who have played outstanding roles in the social, political, and economic development of civilization.

HIS 388. History of Corrections. (3-0-3); I. (See CORR 388.)

HIS 389. Honors Seminar. (3-0-3); Prerequisite: open only to juniors and seniors in the Honors Program. An analysis and discussion of the philosophies of world history; their origins and effects.

HIS 394. Colonial America. (3-0-3); I. The nation from the Age of Discovery to the Revolutionary War.

HIS 541. American Revolution and Federal Period. (3-0-3); II. A continuation of 540 covering the period from the American Revolution to the Era of Good Feelings.

HIS 543. The United States, 1876-1900. (3-0-3); II. Emphasis is placed upon the rise of big business with its resultant epoch of America as a world power.

HIS 544. Kentucky Historical Tours. (3-0-3); I, II. Provides students with an opportunity to see, hear, and read about Kentucky's exciting historical places. (Does not count toward a master's degree in history.)

HIS 545. The United States, 1900-1939. (3-0-3); I. The American people from the Progressive Period through the New Deal.

HIS 546. The United States, 1939-Present. (3-0-3); II. America from World War to world leadership. Emphasis is placed upon the resultant social problems.

HIS 548. United States Foreign Relations. (3-0-3); I. A survey designed to acquaint the student with the foreign relations of the United States from its conception to our present role in the United States.

HIS 549. American Life and Thought. (3-0-3); II. A survey of the American intellectual heritage from Puritanism to the "mod" world.

HIS 550. The World 1914-1939. (3-0-3); I. A study extending from World War I to the outbreak of the Second World War with special emphasis on communism, facism, and nazism.

HIS 552. The World, 1939 to the Present. (3-0-3); II. A detailed study of World War II and the aftermath of a world divided.

HIS 558. The Slavery Controversy. (3-0-3); II. The issues growing out of differences concerning slavery within voluntary societies.

HIS 576. American History: Directed Readings. (1 to 3 hrs.); I, II, III. Prerequisite: open only to history majors and minors with permission of the chairman.

HIS 577. European History: Directed Readings. (1 to 3 hrs.); I, II, III. Prerequisite: open only to history majors and minors with permission of the chairman.

HIS 578. Non-Western History: Directed Readings. (1 to 3 hrs.); I, II, III. Prerequisite: open only to history majors and minors with permission of the chairman.

HOME ECONOMICS

HEC 101. Orientation for Home Economics Freshmen. (1-0-1); I. The study of subject matter and career opportunities offered in the various areas of home economics. University services are explored.

HEC 103. Interior Graphics I. (1-4-3); I. Principles and techniques of drafting. Communication of design ideas by graphic representation with emphasis on the drawing of interior products.

HEC 104. Interior Graphics II. (1-4-3); II. Prerequisite: HEC 103. Continuation of previous drafting course, giving broader depth and scope to skills and knowledge in graphic representation. New techniques and shortcuts introduced. Covers a variety of paraline and perspective drawing methods.

HEC 110. Nutrition and Physical Well-Being. (3-0-3); I, II. Introductory description of nutrient functions and effects of various supply/demand states on physical well-being. Nutritional health of the individual related to food and metabolism; nutrition as a factor in personal and community health problems; guides for better nutrition practices. Course will NOT be accepted as credit toward a program in general dietetics.

HEC 120. Food and People Interactions. (3-0-3); II. Taught alternate years. Introduction to the expected effects of economic, cultural, aesthetic, and socio-psychological constraints on food and people interactions. Analysis of effects of resultant food habits on dietary intake patterns and nutritional status.

HEC 130. Elementary Foods. (2-3-3); I, II. Study of factors affecting nutrient content; basic preparations of food for optimum nutrition, flavor, and appearance.

HEC 132. Introduction to Food Service. (2-2-3); I. Survey of the types of commercial and institutional foodservice organizations and their characteristics.

HEC 136. Introduction to Restaurant Management. (2-2-3); II. Taught alternate years. Principles and practices of food and beverage management.

HEC 141. Basic Clothing Construction. (2-3-3); I, II. Relationship and manipulation of patterns and fabrics; fundamentals of clothing construction; selection, use, and care of sewing equipment.

HEC 230. Quantity Food Purchasing/Inventory Management. (3-0-3); II. Taught alternate years. Principles of purchasing and inventory management with respect to food and supplies for commercial and institutional foodservice units.

HEC 231. Food and Nutrition Management. (2-2-3); II. Prerequisite: HEC 130. Application of basic nutrition/food selection/preparation service principles in feeding individuals and groups. The study of pricing, labeling, food additives, convenience foods, product attributes, and budgets.

HEC 232. Food Sanitation and Safety. (3-0-3); I. Taught alternate years. Sources of food-borne illness: identification, prevention, control. Food handling practices. Federal, state, and local regulations/inspection procedures.

HEC 240. Textiles. (3-0-3); I, II. Textiles from raw materials to finished products as related to use and care of fabrics. Simple laboratory tests on identification and behavior of textiles.

HEC 241. Advanced Clothing Problems. (2-3-3); I, II. Prerequisite: HEC 141 or consent of instructor. Advanced construction and simple tailoring. New and creative techniques.

HEC 251. Household Equipment. (3-0-3); II. Taught alternate years. Principles and practical experience acquired in selection, use, and care of equipment; development of demonstration skills of consumer products and equipment.

HEC 252. Problems in Interior Design. (2-2-3); II. Taught alternate years. Involves the study of practical experience in selection, arrangement, and presentation of colors, fabrics, furnishings, and cost estimates for a client. Lecture, laboratory, field trips.

HEC 270. Materials, Techniques, and Design. (2-2-3); II. Taught alternate years. Basic course in the characteristics, uses, and technology of wood, metals, glass, and plastics used in furniture construction. Design and construction of wood projects.

HEC 280. Introduction to Interior Design. (2-2-3); II. Taught alternate years. Prerequisite: HEC 103 or 104. Study of the principles and elements of design with emphasis on color and lighting. Study of furniture selection and arrangement.

HEC 303. Health of the Family. (3-0-3); II. Taught alternate years. Problems in maintenance of individual and family health; principles and techniques applicable to home care of the sick and injured.

HEC 310. Nutrient Supply/Demand. (3-0-3); I. Taught alternate years. Prerequisite: CHEM 201. Nutrient functions and macrometabolic effects of various

levels of nutrient supply and demand on tissue processes in people in all age groups. Nutrient requirements and assessment of nutritional intake.

HEC 327. Child Growth and Nutrition. (3-0-3); on demand. Selection, application, and evaluation of nutritional data concerned with infancy and child growth. Taught alternate years.

HEC 331. Foodservice Systems Management. (3-0-3); I. Taught alternate years. Prerequisite: HEC 330. Principles of management of foodservice systems in commercial and institutional settings with emphasis on the menu planning, ingredient control, and cost control subsystems. Development of professional skills, menu planning, ingredient specification.

HEC 332. Field Experience in Home Economics. (1 to 4 hrs.); I, II. Field training in home economics arranged with consent and supervision of the instructor. Student is visited on the job.

HEC 334. Quantity Food Preparation. (2-5-3); I, II. Prerequisite: HEC 130, HEC 231. Principles and techniques of quantity food preparation. Use of standardized recipes and institutional equipment. Must be followed by HEC 337 in next semester.

HEC 335. Foodservice Equipment. (3-0-3); I. Taught alternate years. Principles of selection, use and care of foodservice equipment.

HEC 336. Foodservice Administration. (3-0-3); II. Taught alternate years. Prerequisites: HEC 331 and MNGT 311. Principles/practices underlying policy-making decisions for foodservice systems; executive functions with respect to personnel and facility layout/design. Development of professional skills: interviewing, training, layout/design of facilities.

HEC 337. Food Production Management. (1-6-3); I, II. Prerequisite: HEC 334 preceding semester. Principles of scheduling and supervision of food production.

HEC 340. Textile Testing. (1-3-2); on demand. Prerequisites: HEC 240, CHEM 102 and 102A. Study of textile fiber and fabric testing procedures. Individual research.

HEC 341. Flat Pattern Design. (1-3-2); II. Taught alternate years. Prerequisites: HEC 241 or consent of instructor. Pattern making and fitting using original designs by the students.

HEC 343. Textiles for Interiors. (2-2-3); I. Prerequisite: HEC 240. Selection, cost, care, standards, and evaluation of textiles used in residential and commercial interiors.

HEC 344. Historic Costume. (3-0-3); I. The development of costume through the ages as an expression of social, economic, and cultural life of the time, and as a contribution to current fashion.

HEC 346. Introduction to the Apparel Industry. (3-0-3); I. Organization and operation of the fashion world, the influence of designers, manufacturers, retailers, and mass media on apparel.

HEC 350. Merchandise Display and Promotion I. (2-2-3); I, II. Application of principles and practices in arranging and displaying merchandise for commercial and educational purposes; planning and executing actual window displays.

HEC 351. Housing. (2-2-3); I, II. Historic development of housing in the United States. Implications for housing from social and economic changes. Trends in the field of housing. Second semester course for vocational students is taught alternate years.

HEC 355. Child Growth and Development. (3-2-3); I. Taught alternate years. Behavioral characteristics in growth and development; positive approach to child guidance; importance of the role of parents and child care givers. Directed practicum in observation of and participation with pre-school children.

HEC 356. The Nursery School. (3-2-3); II. Taught alternate years. Prerequisite: HEC 355. The study of the organization and administration of pre-school programs; role of parenthood education; supervised experiences in planning and guiding children's activities in a nursery school program.

HEC 362. Consumer Education. (3-0-3); II. Appraisal of all segments of consumer goods and services; use of credit, legislation, and controls affecting all phases of living. Consumer's role in changing patterns of consumption and the economy. Guidelines for decision making concerning consumer goods and services in family money management.

HEC 363. Management of Consumer Resources. (2-0-2); on demand. Prepares guidelines for rational decision making as it relates to the family's resources, time, money, and energy.

HEC 370. Residential Interior Design, Studio I. (3-2-3); I. Taught alternate years. Prerequisite: HEC 280. Planning a residential interior from problem through analysis of a family's needs for each area; the design idea from conception through finished presentation drawings. Emphasis on interior components, products available, functional and economical design.

HEC 375. Commercial Interior Design, Studio II. (3-2-3); II. Taught alternate years. Prerequisite: HEC 280. Planning small commercial interiors from the client's approach with a problem to the final solution. Emphasis on economical and functional design, product research, analysis of needs, lighting design, acoustics, contracts and business procedures.

HEC 380. Clothing for Consumers. (3-0-3); II. Quality, manufacturing techniques, art principles, care, consumer services, legislation, labeling, and social-psychological implications for the consumer of clothing. Principles of clothing selection for entire family.

HEC 381. History of Interiors I. (3-0-3); I. A study of the development of furnishings, interiors, and architecture from ancient history through the 18th century.

HEC 382. History of Interiors II. (3-0-3); II. The development of furniture styles and interiors and the influence of architecture from American colonization through the twentieth century. Miscellaneous styles are studied.

HEC 410. Bionutrition. (3-0-3); II. Taught alternate years. Prerequisite: BIOL 332, BIOL 301. Biochemical and biophysical aspects of variation in nutrient supply and demand within the human biosystem.

HEC 433. Diet Therapy. (3-3-4); II. Taught alternate years. Prerequisites: BIOL 301, HEC 120, 130, 410. Role of the therapeutic dietitian as instructor, counselor, or member of the health care team. Modification of nutritionally balanced diets for the prevention and treatment of disease. Development of professional skills: diet calculation, diet instruction and counseling, charting.

HEC 434. School Lunch Seminar. (1 hr.); on demand. Techniques and problems related to the school lunch program.

HEC 438. Experimental Foods. (2-2-3); II. Taught alternate years. Prerequisite: HEC 130 and CHEM 201. Principles of sensory evaluation of food; review of principles of food science and experimental corroboration.

HEC 440. Interior Design Studio III. (0-6-3); I. Taught alternate years. Prerequisite: HEC 370 and 375, senior standing. Advanced study of residential interior design. Research and design of homes in period style reproduction; design of custom contemporary home. Emphasis on sales and presentation techniques, business aspects.

HEC 445. Interior Design Studio IV. (0-6-3); II. Taught alternate years. Prerequisite: HEC 370 and 375, senior standing. Advanced study of commercial establishments. Emphasis on business and sales aspects of interior design.

HEC 450. Fashion Merchandising Techniques. (3-0-3); II. Prerequisite: HEC 346, Introduction to the Apparel Industry. A study of the unique characteristics of fashion merchandisers and fashion buyers with an emphasis on fashion merchandising techniques.

HEC 451. Home Furnishings. (2-2-3); I. Design principles applied to interiors; selection of furnishings and the design of floor plans.

HEC 453. Marriage and Family Living. (3-0-3); I. Includes the changing roles of all family members' adjustments needed in marriage; family functions through the eight stages of the family life cycle.

HEC 454. Supervised Home Management Experiences. (4 hrs.); I. Prerequisites: HEC 231 and 251. Supervised home management experience for one-half semester. Opportunities for assuming responsibility for making decisions and for applying principles of management in the use of time, energy, and money; social experience and group activities. Arrangements for residence must be made in advance.

HEC 460. Merchandise Display and Promotion II. (2-2-3); II. Taught alternate years. Prerequisite: HEC 350 or consent of instructor. Advanced theory and application of window display and interior store display with actual experience in designing, presenting, and executing displays.

HEC 470. Methods of Teaching Vocational Home Economics. (3-0-3); I. Prerequisites: junior and senior standing in home economics and admission to the teacher education program. Study of the history, organization, and administration of consumer and homemaking classes, gainful home economics programs, and home economics adult education programs; role of the advisor of Future Homemakers of America organizations, principles of learning and application through use of various teaching techniques and methods.

HEC 471. Seminar. (1-0-1); II. Identification of issues reflected in the current technical and professional literature, further understandings of the role and function of semi-professional and professional fields in home economics.

HEC 476. Special Problems. (1 to 3 hrs.); I, II, III. Supervised study of a problem in some phase of home economics chosen by the student on the basis of individual need or interest.

HEC 480. Historic Textiles. (3-0-3); II. Historic background and characteristics of textile fibers, weaves, motifs, and colors from prehistoric to modern times. Taught alternate years.

HEC 531. Nutrition Education. (3-0-3); on demand. The study of the application of basic principles of education applied to the teaching of nutrition. Lecture.

HEC 541. Tailoring. (1-4-3); I. Prerequisites: HEC 241 or consent of instructor. Fitting and tailoring techniques in the construction of a tailored garment based upon individual problems. Required construction of a suit or coat.

HEC 542. Social-Psychological Aspects of Clothing and Textiles. (3-0-3); II. Taught alternate years. Prerequisite: 6 hrs. in clothing and textiles. Social, psychological, and economic factors in the selection and use of clothing.

HEC 543. Advanced Textile Testing. (1-4-3); on demand. Prerequisite: HEC 240. Advanced study of textile fibers and fabrics with emphasis on trends in wear and end-use testing.

HEC 544. Dyes and Finishes. (2-2-3); on demand. Prerequisite: HEC 340. Types of dyes and finishes used currently on fibers and fabrics as they affect wear, care, and storage.

HEC 545. Clothing Design in Draping. (1-5-3); II. Taught alternate years. Prerequisite: HEC 241. Original garments created by draping on the dress form. Dress form will be constructed in the course. Taught alternate years.

HEC 555. The Child and the Family. (3-0-3); on demand. Environmental factors favoring family life and family interaction; stages of family life and the changing role of members.

HEC 557. Interior Decoration Projects. (1-4-3); on demand. A lecture laboratory class with emphasis on projects for the home that can be utilized in vocational, occupational, and adult classes or in the home.

HEC 573. Curriculum Development in Home Economics. (3-0-3); I. Development of secondary and post-secondary home economics programs; review of home economics curriculum at all grade levels for useful and gainful programs; a critical survey of resources; development of competency-based curriculum in the five areas of home economics.

HEC 590. Creative Foods. (1-4-3); I, II. The study and preparation of gourmet foods. Emphasis on foods from different cultural backgrounds and geographical regions. Arranged laboratories.

HEC 592. Foods for Special Occasions. (1-4-3); II. Prerequisite: permission of instructor and/or one food preparation course. A lecture-laboratory course with emphasis on planning, preparing, and serving foods for special occasions, including special diets, meal service, special equipment, and various budget levels. Arranged laboratories.

INDUSTRIAL EDUCATION AND TECHNOLOGY

IET 100. World of Technology. (3-0-3); I. An introduction to basic concepts of industry. The identification of the major industries and the development of an understanding of their impact upon society.

IET 111. Basic Wood Technics. (2-2-3); I, II. This is the beginning course in wood technics, consisting of theory and application with particular emphasis on individual and industrial values of wood.

IET 160. Introduction to Power and Fluid Mechanics. (2-2-3); I, II. Beginning instruction in energy sources and fluid systems. Steam engines, steam turbines, diesel engines, spark-ignition engines, and exhaust emissions are studied.

IET 211. Advanced Wood Technics. (2-2-3); I, II. Prerequisite: IET 111 or consent of instructor. This is a continuation of basic wood technics. It consists of advanced techniques and practices reflecting the wood industries through the study and use of theory, experimentation, and evaluation.

IET 222. General Crafts. (1-2-2); on demand. A survey of several craft media, involving a study of the common tools, skills, processes, and procedures in clay, glass, plastics, metal, stone, leather, and wood. Industrial applications of craft principles and processes will also be investigated.

IET 260. Hydraulics and Pneumatics. (2-2-3); I. Introductory course in the design and analysis of power transfer devices utilizing hydraulics and pneumatics, with emphasis on robotics applications.

IET 261. Power Mechanics. (2-2-3); I. Control mechanisms are studied along with rocket engines, various forms of jet engines, and advanced power systems.

IET 311. Design and Construction. (1-4-3); I. Prerequisite: IET 211. Students design, plan, construct, and finish an appropriate product requiring knowledge of advanced principles and techniques in wood technology.

IET 317. Time and Motion Study. (2-0-2); I, II. Process charts, analysis of methods, materials, tools, and equipment of industry for profit improvement.

IET 319. Quality Control. (3-0-3); I, II. Analytical and statistical inference techniques for process and manufacturing product control. Development of process capabilities and derivation of process limit graphs.

IET 320. Supervisory Practices. (3-0-3); I, II. Development of various direct and indirect supervisory techniques commonly used in management positions with special emphasis placed on those unique to technical shops.

IET 321. Wood Laminating and Turning. (2-2-3); on demand. Theory and practice of laminating and wood turning, with emphasis given to industrial and school shop practices. Introduction to tools, equipment, and their safe operations.

IET 327. Applied Industrial Management. (3-0-3); on demand. A study of basic industrial management practices and procedures. Designed to serve the technician, first-line supervisor, or lay management individual to provide an awareness rather than to prepare a practitioner of management. Students will visit regional industries.

IET 330. Industrial Design. (1-2-2); I, II. Product design with emphasis upon modular systems, consumer relations, and manufacturing capabilities. Individual and group activities using interdisciplinary and systems design techniques.

IET 360. Internal Combustion Engines I. (2-2-3); on demand. Study of operating cycle and maintenance procedures on spark ignition, diesel, and wankel engines.

IET 362. Fluid Power. (2-2-3); on demand. Prerequisite: IET 262. To gain an in-depth knowledge of fluid systems as they are used in modern industry.

IET 364. Career and Vocational Guidance. (3-0-3); on demand. Study of the concept of career education and to explore the new emerging role of the guidance counselor in regard to problems that exist in our present educational system, innovative concept of career education, the counselor and classroom teacher's responsibility within the framework of career education, evaluation of career education, and exploring future implications for developing positive attitudes and values for work for all students, including the disadvantaged and handicapped.

IET 365. Instrumentation. (2-2-3); on demand. Techniques of properly instrumenting test calls with such devices as pilot tubes, manometers, and electronic devices.

IET 381. Related Science, Mathematics, and Technology in Occupations. Offered only through written examination. (0-0-6); on demand. Courses will be offered only through a scheduled examination. (Written, performance, and oral examinations in the field of specialization that the candidate is preparing to teach.)

IET 382. Manipulative Skills in Occupations. Offered only through technical competence examinations. (0-0-6); on demand. Courses will be offered

only through a scheduled examination. (Written, performance, and oral examinations in the field of specialization that the candidate is preparing to teach.)

IET 383. Knowledge of related subjects in occupations—offered only through oral examinations. (0-0-6); on demand. Courses will be offered only through a scheduled examination. (Written, performance and oral examinations in the field of specialization that the candidate is preparing to teach.)

IET 390. Principles of Industrial Education. (3-0-3); I, III. The history of industrial education, types of curriculum, types of schools, and level of industrial education programs are given emphasis as are vocational guidance and competency based occupational preparation.

IET 391. Trade and Technical Analysis Techniques. (2-0-2); on demand. The techniques used in analyzing a trade and jobs within a trade, in discovering the teachable content and the method of using scientific analysis in the development of course outline.

IET 392. Technical Curriculum and Media Development. (2-2-3); I, III. Emphasis is placed on developing competency based objectives for technical subject matter and on developing a variety of instructional media appropriate for technical curricula.

IET 393. Methods in Vocational Industrial Education. (3-0-3); on demand. Basic principles of teaching and learning with practical applications of procedures used in industrial education programs.

IET 394. Student Teaching in Vocational Industrial Education. (4 to 8 hrs.); on demand. Prerequisite: IET 393, admission to teacher education program. Each student is assigned to an approved student teaching center offering comprehensive teaching experiences at the preparation-industrial education level. Directed to observations and supervised teaching in approved area vocational school or an extension center in the trade and area in which the certificate is desired.

Candidates for the associate degree will complete a minimum of 45 hours of supervised student teaching, 60 hours of directed observation, and 20 hours of participation. This experience carries four hours of credit.

Candidates for the bachelor's degree complete a minimum of 90 hours of supervised student teaching, 120 hours of directed observation, and 40 hours of participation. This experience carries eight hours of credit.

IET 395. Special Problems in Vocational Industrial Education. (1 to 3 hrs.); I, II, III. Prerequisite: permission of the instructor prior to registration. Individual problems dealing with specific areas in the teaching field of the student. Opportunity of pursuing a technical problem in a laboratory orientation is provided. Conferences with the instructor are scheduled as needed.

IET 398. Supervised Work Experience. (1 to 9 hrs.); I, II, III. Prerequisite: 20 hours in major department and consent of the department head prior to registration. An enrichment program which will give experience in an occupational area which is not possible to provide in a classroom setting. Student will work under supervision in an approved organization for a period of time specified by his or her major department. Credit will be commensurate with the amount of time worked. The student will be supervised by faculty from the major department. A representative of the cooperating organization will be directly responsible for the work experience of the student and will make a written evaluation of the student periodically.

IET 400. Seminar in Industrial Education—Orientation and Exploration Levels. (4-0-4); on demand. Prerequisite: four years of successful teaching experience at the industrial education preparation level. Seminar designed for individuals who have four years of successful teaching experience at the industrial education preparation level and desire dual certification to include industrial education at the orientation and exploration levels.

IET 401. Seminar in Industrial Education—Preparation Level. (4-0-4); on demand. Prerequisite: four years of successful teaching at the industrial education orientation and exploration levels. Seminar designed for individuals who have four years of successful teaching experience at the industrial education orientation and exploration levels and desire dual certification to include industrial education at the preparation level.

IET 411. Wood Technics. (2-2-3); I. Prerequisite: IET 111, 211. A study of the problems and process of the major wood industries in the United States. Various industrial processes, application, and testing are utilized in mass production and individual projects.

IET 422. Industrial Safety Standards and Enforcement. (3-0-3); II. A study of industrial safety codes, standards, regulations, and enforcement procedures. Explanations of worker safety as related to attitude and production. Review of current laws regulating safety and those agencies related to enforcement and training.

IET 460. Internal Combustion Engines II. (2-2-3); on demand. Prerequisite: IET 360. Detailed study of exhaust emissions and the gas turbine engine.

IET 463. Heating, Ventilating, and Air Conditioning. (2-2-3); on demand. A study of the ventilating and heating techniques in modern industrial application. Also includes industrial air conditioning and refrigeration.

IET 472. Basic Industries Practicum. (1-2-2); II. Prerequisite: Upper division standing in industrial education. A study of basic industry through lecture-discussion, reports, and field trips. Emphasis will be placed on contact with local industry through a minimum of seven field trips.

IET 475. Teaching Methods in Industrial Education—Orientation and Exploration Levels. (3-0-3); II. Co-requisite, enrolled in IET 478—Supervised Teaching Practicum. Must be admitted to teacher education program. A study of the objectives of industrial arts and related behavioral changes; industrial arts curricular patterns and trends; selection and organization of subject matter, problem selection, and the project method of teaching; instruc-

tional materials and teaching aids; testing and evaluation; and professional growth.

IET 476. Special Problems.(1 to 3 hrs.); I, II, III. Prerequisite: upper division standing; approval prior to registration. Designed for the purpose of permitting a student to do advanced work as a continuation of an earlier experience or to work in an area of special interest.

IET 478. Supervised Teaching Practicum in Industrial Education—Orientation and Exploration Levels. (8 hrs.); co-requisite, enrolled in IET 475—Teaching Methods in Industrial Education, and admission to the teacher education program. Each student is assigned to an approved student teacher center offering comprehensive teaching experience in the industrial education program at the orientation and exploration levels. Supervision will be provided by University faculty competent in industrial education at the orientation and exploration levels.

IET 496. Organization and Management of the Laboratory. (2-0-2); on demand. Prerequisite: IET 393. Principles of shop and class organization and management, including program planning and development of shops and laboratories; selecting and purchasing equipment and supplies; and organizing and administering the instructional program.

IET 497. Seminar in Vocational Industrial Education. (1-0-1); I. Current problems, issues, and trends in vocational education.

IET 520. Industrial Arts for the Elementary Teacher (3-0-3); on demand. Prerequisite: formal admission to the teacher education program. This course is designed as a means to develop professional and technical competencies of pre-service and in-service elementary school teachers so they may enrich and strengthen programs of instruction by using industrial arts as both method and content.

IET 560. Foundations of Industrial Education. (3-0-3); on demand. Study of the philosophical positions underlying the development of industrial education; leaders, their influence and contributions; contemporary educational theories affecting the current programs of industrial education.

IET 571. Seminar for Industrial Education. (1-0-1); I, II. Participants will develop a further understanding of the underlying concepts of industrial education by participation in one or more programs followed by informal discussion. Faculty presentation will enrich the experience by raising real problems and issues confronting industrial education.

IET 590. Supervised Internship.(1 to 6 hrs.); I, II. Prerequisite: approval prior to registration.

A. To provide work experience in an occupational area. Student works under supervision in an approved position. Advanced credit commensurate with time worked, type of work, variety of work experience, and research paper. Maximum credit allowed in the internship will be six hours.

B. A person who chooses to do the internship in administration will be assigned to work in secondary, post secondary or higher education institution or for the State Bureau of Vocational Education in an administrative capacity approved by his advisor.

In each case, conditions will be agreed upon by employer, student, and graduate advisor prior to registration.

JOURNALISM

JOUR 110. Introduction to Mass Communications.(3-0-3); I, II, III. Survey of history, functions, career openings, and interrelationship of newspapers, radio, television, other media, and attendant agencies.

JOUR 155. Broadcast Performance.(3-4-3); I, II. (See R-TV 155.)

JOUR 192. Technical Composition. (3-0-3); I, II, III. (See ENG 192.)

JOUR 201. News Writing and Reporting. (3-0-3); I, II, III. Gathering news from sources on and off campus; organizing and writing basic types of news items, some for campus newspaper.

JOUR 204. Copyreading and Editing. (3-0-3); I, III. Copy correcting, both on typed news copy and on video display terminals (VDTs); proofreading, headline writing, news selection, page layout.

JOUR 240. Writing for Broadcast. (3-0-3); I, II. (See R-TV 240.)

JOUR 285. Introduction to Photojournalism. (2-2-3); I, II, III. Lecture and laboratory, introduction to camera use, darkroom procedure, photo layout and practices in reporting news pictorially. For journalism majors and minors only. Camera rental fee for students without suitable camera. (Lab fee will be assessed each student.)

JOUR 301. Advanced Newswriting and Reporting. (3-0-3); II, III. Prerequisite: JOUR 201. Advanced reporting including covering courts, police, governmental agencies. Interviewing skills, legal aspects of the press, and theories of social responsibility.

JOUR 304. Newspaper Production. (3-0-3); II, III. Development of modern printing methods from hand-set type to computerized photocomposition. Experience in electronic typesetting of offset paste-ups.

JOUR 305. Newspaper Typography and Design. (3-0-3); I. Prerequisite: JOUR 204. Elements of newspaper design; emphasis on typography and photo display.

JOUR 310. History of Journalism. (3-0-3); I. Origins and development of American journalism as a profession, mainly through newspapers and their roles in history.

JOUR 344. Broadcast News and Public Affairs. (3-0-3); I. Prerequisite: 9 hours of undergraduate radio-TV or consent of faculty. (See R-TV 344.)

JOUR 357. Sports Casting. (2-2-3); I. Basic philosophy and ethical consideration in developing sports reporting style in oral or written presentation. Ap-

plication of principles in play-by-play description of seasonal sports. (Cross referenced as R-TV 357.)

JOUR 358. Sports Writing. (3-0-3); I, II. Philosophy and techniques in writing sports and sports analysis or commentary for print media. (Cross referenced as R-TV 358.)

JOUR 364. Feature Writing. (3-0-3); I, II. Researching, organizing, writing and marketing of non-fiction articles.

JOUR 382. Principles of Public Relations. (3-0-3); I. Purposes, methods, and responsibilities in the profession of public relations.

JOUR 383. Principles of Advertising. (3-0-3); II. Advertising principles and practices.

JOUR 386. Photo Essay and Editing. (3-0-3); I. Photographic composition and selection of pictures for various publications.

JOUR 387. Advanced Photojournalism. (3-0-3); II. Prerequisite: JOUR 285. In-depth study of photojournalism equipment, techniques, and style, including color photography. For journalism majors and minors only. Camera rental fee for students without suitable camera.

JOUR 399. Public Relations Workshop. (3-0-3); III. A hands-on workshop in preparing print-media public relations materials.

JOUR 464. Magazine Editing and Design. (3-0-3); II. Editing and the graphic design of magazines.

JOUR 465. Editorial Writing. (3-0-3); I. Purposes and methods of editorial writing, including ethics and values.

JOUR 482. Public Relations Practices. (3-0-3); II. Prerequisite: JOUR 382. Specific practices in carrying out campaigns in public relations.

JOUR 483. Advertising Design. (3-0-3); I. Study and application of methods of designing and producing advertisements. Primarily for print media, but includes television storyboards.

JOUR 501. Interpretative Reporting. (3-0-3); I. Prerequisite: six hours (200 or above) advanced credit in journalism, including one basic news-writing course. Writing in-depth analysis of current events using investigative research.

JOUR 504. School Publications. (3-0-3); III. Advisement of students in the production of school newspapers, yearbooks, and magazines; includes a complete review of journalism principles.

JOUR 505. Law and Ethics of the Press. (3-0-3); II. Prerequisite: six hours of advanced journalism credit. An examination of law as it affects publications.

JOUR 506. Community Newspapering. (3-0-3). Community-newspaper editors and publishers to discuss reporting, editing, advertising, circulation, and management on community newspapers.

JOUR 558. Public Broadcasting. (3-0-3); II. Prerequisite: junior standing and consent of the faculty. (See R-TV 558.)

JOUR 560. Reviews and Criticism. (3-0-3); II. Evaluating and writing critical reviews of drama, literature, art, music, and restaurants for the mass media.

JOUR 565. Public Opinion and News Media. (3-0-3); I. Cultural, social, and psychological nature of public opinion and its influence on and by press, television, radio, and film; the nature of propaganda in advertising.

JOUR 583. Advertising Copy Writing. (3-0-3); II. Writing advertising headlines and copy for print and broadcast media.

JOUR 584. Psychology of Advertising. (3-0-3); I. Prerequisite: JOUR 383. Psychological strategy used in art, words, and graphics as persuasive advertising devices.

JOUR 591. Technical Writing I. (3-0-3); I, II, III. (See English 591.)

JOUR 592. Technical Writing II. (3-0-3); I, II, III. (See English 592.)

JOUR 599. Yearbook Workshop. (1-0-1); III. Planning, staffing, financing, and producing a high school yearbook.

LATIN

LAT 101. Beginning Latin I. (3-2-3); I, II. Drill in the basic elements of Latin grammar, word study, and reading of simple Latin selections.

LAT 102. Beginning Latin II. (3-2-3); I, II. A continuation of 101.

LAT 201. Intermediate Latin I. (3-0-3); I. Selections from Catullus, Cicero, Horace, Pliny, Martial, Livy, and Ovid.

LAT 202. Intermediate Latin II. (3-0-3); II. Writings of Cicero; his life and influence.

LAT 301. Advanced Latin I. (3-0-3); I. Poets of the Augustan Age, together with the history of the period.

LAT 302. Advanced Latin II. (3-0-3); ; II Further study of the poetry of the Augustan Age. Selections from Vergil's Aeneid.

LAT 401. Latin Literature I. (3-0-3); I. Selections from the works of Horace, Vergil, Catullus, and others. Rotation of course content allows students to repeat the course for additional credit.

LAT 402. Latin Literature II. (3-0-3); II. Selections from Livy, Tacitus, Suetonius, Caesar, and others. Rotation of course content allows students to repeat the course for additional credit.

LIBRARY SCIENCE AND INSTRUCTIONAL MEDIA

LSIM 101. Use of Books, Materials, and Libraries. (2-0-1), nine weeks only; I, II. General library organization and orientation with emphasis upon utilization of library resources, including card catalogs, indexes, encyclopedias, and handbooks. Emphasis upon organization and resources of Johnson Camden Library. Course is designed for college freshmen.

LSIM 199. Library Media Workshop. (1 to 3 hrs.); I, II, III. Workshop for specifically designated task orientation in library and instructional education.

LSIM 412. Media Strategies. (3-1-2, eight weeks); I, II. Prerequisite: enrollment in professional semester. Course content deals with communication, mediated teaching, choosing, producing, evaluating, and using audiovisual materials of instruction. Heavy emphasis placed upon use of major types of audiovisual equipment found in modern school.

LSIM 521. Literature and Materials for Young People. (3-0-3); I, III. Investigation of reading interests and needs of young people grades 7 through 12, with emphasis on criteria for selection and evaluation of materials, technical and literary qualities, and methods for utilization of such materials.

LSIM 522. Literature and Materials for Adults. (3-0-3); II. Investigation of adult reading interests and library's role in adult education with consideration of services offered to culturally disadvantaged and physically handicapped. Students given opportunity to read and discuss the "popular book" and practice in writing of book reviews.

LSIM 581. Utilization of Educational Media. (3-0-3); II, III. Overview of educational media in schools. Principles of acquisition and application of materials and equipment.

LSIM 583. Production of Educational Media. (3-0-3); I, III. Production of types of educational media with emphasis upon classroom use of still photography, motion picture photography, audio production, microcomputers, and educational television.

LSIM 588. Educational Gaming and Simulation. (3-0-3); I, III. Introduction to design, production, utilization, and evaluation of educational games and simulations. Student shall produce an educational game and an educational simulation of his or her own design which will be evaluated and revised by tryout with selected target groups.

LSIM 599. Library Media Workshop. (1 to 6 hrs.); on demand. Subject matter and length of time vary; prerequisites determined for each. May be repeated but not to exceed a total of six hours.

MANAGEMENT

MNGT 139. Cooperative Study I. (1 to 8 hrs.); on demand. Work experience in a field relevant to the student's career objectives and academic preparation. Experience is usually analogous to a freshman level course.

MNGT 160. Introduction to Business. (3-0-3); I, II, III. Basic survey course. Management, business organization, marketing, retailing, accounting, banking, finance, risk, and insurance.

MNGT 199. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various management subjects will be presented periodically to supplement the basic course offerings in management. Credit toward degree programs must be approved by the student's advisor.

MNGT 239. Cooperative Study II. (1 to 8 hrs.); on demand. Work experience with an extension of exposure gained in MNGT 139 or of a nature similar to a sophomore status course.

MNGT 261. The Legal Environment of Business Organizations. (3-0-3); on demand. The forms of business organizations, including sole proprietorships, partnerships, and profit and nonprofit corporations. The regulatory environment and legal constraints on organizations; the relationship between business and government in policy formation; and basic legal concepts.

MNGT 301. Principles of Management. (3-0-3); I, II, III. Prerequisites: ACCT 282 and ECON 202. History of management, the management process, the principles of management and their application in the operations of business. The fundamental concepts of management applied to such areas of business activity as organization, personnel, production, and research.

MNGT 306. Production Management. (3-0-3); I, II, III. Prerequisite: MNGT 301, MATH 160, and MATH 354. Organization and operation of production management within the on-going service and product organization are described and analyzed. Descriptive practices and techniques, including work measurement, facilities location, and layout are used in analysis and problem solution.

MNGT 310. Small Business Organization. (3-0-3); I. Aspects of management that are unique to small firms; economic and social environment in which small firms function; student practice in making decisions on problems facing managers of small businesses.

MNGT 311. Personnel Management. (3-0-3); I, II. Prerequisite: MNGT 301. Personnel management principles, job requirements; selection techniques; testing programs; facilitation of employee adjustment; wage and salary administration; legal aspects of labor relations; financial incentives.

MNGT 339. Cooperative Study III. (1 to 8 hrs.); on demand. Work experience with an in-depth exposure representative of the student's academic level and experience analogous to a junior level status.

MNGT 362. The Legal Environment and Business Practices. (3-0-3); on demand. Prerequisite: MNGT 261. Business practices, emphasizing legal problem avoidance. Areas of the law which impact business success or failure; the Uniform Commercial Code, state and federal regulations, and laws.

MNGT 399. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various management subjects will be presented periodically to supplement the basic course offerings in management. Credit toward degree programs must be approved by the student's advisor.

MNGT 411. Labor Relations. (3-0-3); I, II. Prerequisite: MNGT 311. Historical development of the U.S. labor movement, and a comparative analysis with other western culture labor movements. Emphasis on develop-

ing insights into labor's point of view. An introduction to labor-management negotiations and grievance procedures.

MNGT 439. Cooperative Study IV. (1 to 8 hrs.); on demand. Work experience with an in-depth exposure representative of the student's academic level and experience analogous to a senior level course.

MNGT 463. Law and Ethics in Business. (3-0-3); on demand. Prerequisites: MNGT 261 and MNGT 362. The social responsibility of business and individuals in commerce. Value systems, externally or self-imposed, their development and operation.

MNGT 472. Business Policies and Problems. (3-0-3); I, II, III. Prerequisites: MNGT 301, MKT 304, or consent of instructor. Specific problems involved in the forming of consistent business policies and maintaining of an efficient organization. Actual cases used for discussions and preparation of reports for executive decision making.

MNGT 476. Special Problems in Management. (1 to 3 hrs); I, II, III. Prerequisites: senior standing and prior consent of head of department. Self-directed independent study on a specific problem, based on written proposal and justification submitted by student prior to registration. Each request will be considered on its own merit in relation to the special needs, interest, and abilities of the student.

MNGT 486. Management Internship Program. (3 to 12 hrs); I, II, III. Prerequisites: junior or senior standing and 12 hours in major area, with 2.5 GPA in major area. The internship program involves placement of students in positions in business comparable to those filled by professional career employees. Participants work under the supervision of high level officials possessing major departmental responsibilities.

MNGT 506. Operations Analysis. (3-0-3); on demand. Prerequisite: MNGT 306, MATH 160 and 354, or consent of instructor. Production and operations management are analyzed. Concepts and techniques used in the design, operation, and control of productive systems are studied.

MNGT 539. Cooperative Study V. (1 to 8 hrs.); on demand. Work experience providing advanced specialized exposure in a career-related position. Available to upper division undergraduate and graduate students.

MNGT 556. Small Business Institute Field Project. (1-4-3); I, II. Prerequisite: senior undergraduate or graduate standing and permission of instructor. Student serves as a member of a consulting team to a small business. Responsibility is to analyze the business operation and make recommendations for improving of identified problem areas.

MNGT 565. Organizational Behavior. (3-0-3); I. Prerequisite: senior standing or consent of instructor. A study of human and interpersonal behavior to understand, evaluate, and appraise business and social situations. Emphasis on skill and the ability to work with peoples, groups, and institutions.

MNGT 599. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various management subjects will be presented periodically to supplement the basic course offerings in management. Credit toward degree programs must be approved by the student's advisor.

MANUFACTURING TECHNOLOGY

MFT 106. Thermoplastic Processing. (2-2-3); I. Prerequisite: GCT 103. Introduction is made to the materials and techniques employed in the processing of thermoplastics.

MFT 107. Thermosetting Plastics Processing. (2-2-3); II. Prerequisite: GCT 103. Study is made as to the various ways in which thermosetting plastic compounds are processed.

MFT 186. Manufacturing and Fabrication. (2-2-3); I, II. Ferrous and nonferrous metals, basic metallurgy and heat treating, sheet metal, metal spinning and electroplating, basic welding, casting and forging.

MFT 286. Machine Tool Processes. (2-2-3); II. Prerequisite: MFT 186 or consent of the instructor. Various metal forming and machining experiences; emphasis on exact tolerances and precise dimensions. Lathe, mill, shaper, and grinder experiences.

MFT 306. Mold Design and Construction. (2-2-3); II. Prerequisite: consent of the instructor. (Recommended courses MFT 106, 107, 111, and 286.) Study and experiences evolve around the design of products in relationship to the physical characteristics of plastics, molding techniques, and mold construction methods.

MFT 386. NC-CNC Manufacturing Technology. (2-2-3); I. Prerequisite: MFT 286 or consent of instructor. Designed to provide advance tooling theory and numerical controlled and computer numerical controlled machine processes. Application and selection of carbide tooling emphasized in production applications.

MFT 486. Patternmaking and Foundry. (1-2-2); II. Casting of hot metals with activities in pattern development, sand testing, and mold design.

MFT 488. Flexible Manufacturing Engineering Technology. (1-4-3); II. Prerequisite: MFT 386. Advanced tools and machining theory; use of carbides, with emphasis on production machining. Turret and progressive tooling design.

MFT 588. Machine Shop. (1-4-3); on demand. Prerequisite: MFT 386. Advanced tool and machining theory, with emphasis on production machining, and progressive tooling design for numerical control applications.

MARINE SCIENCE

The following courses, which are taught only at Gulf Coast Research Laboratory during the summer, are suitable for elective courses in major and

minor programs of study in the School of Sciences and Mathematics. The Laboratory furnishes the staff for courses and research. Applications for the courses and additional information are available from the on-campus coordinator in the School of Sciences and Mathematics. Tuition is paid to Morehead State University at the Mississippi resident rate.

MSCI 571. Special Problems in Marine Science (Marine Science 400). (1 to 6 sem. hrs. as determined by the problem director); III. Prerequisites: to be set by problem director. Special problems are research oriented and grades are based on reports submitted by students.

MSCI 572. Special Topics in Marine Science (Marine Science 405). (1 to 6 sem. hrs. as determined by topic advisor); III. Prerequisites: to be set by topics advisor. Provides an opportunity for students to obtain credit for study in areas in which the laboratory offers no formal course.

MARINE SCIENCE (BOTANY)

MSCI 322. Marine Botany (Botany 341). (4 hrs.); III. Prerequisites: Ten semester hours of biology, including botany. A survey, based upon local examples of the principal groups of marine algae and marine flowering plants, treating structure, reproduction, distribution, identification, and ecology.

MSCI 323. Coastal Vegetation (Botany 331). (3 hrs.); III. Prerequisites: Ten hours of biology, including general botany. General and specific aspects of coastal vegetation, with emphasis on local examples.

MSCI 562. Salt Marsh Plant Ecology (Botany 441). (4 hrs.); III. Prerequisites: General botany, plant taxonomy, plant physiology, and general ecology or consent of instructor. Emphasis on the botanical aspects of local marshes. Plant identification, composition, structure, distribution, and development of coastal marshes. Biological and physical interrelationships. Primary productivity and relation of marshes to estuaries and associated fauna.

MARINE SCIENCE (CHEMISTRY)

MSCI 462. Marine Chemistry (Chemistry 461). (6 hrs.); III. Prerequisites: 16 semester hours chemistry and three to six hours of general biology and geology or consent of instructor. Chemical aspects of the oceans and the interactions of chemistry, biology, and geology in the marine environment.

MARINE SCIENCE (EDUCATION)

MSCI 595. Marine Science for Teachers I: Basic Techniques (Marine Science Education 431). (3 hrs.); III. Prerequisites: biology background or consent of instructor. Introduces students, particularly in-service teachers, to the study of marine science and to promote the teaching of marine biology at all grade levels.

MSCI 596. Marine Science for Teachers II: Advanced Studies (Marine Science Education 432). (3 hrs.); III. Prerequisites: MSCI 595. Augments MSCI 595 to enable the students, particularly in-service teachers, to establish further studies in the marine sciences in local school systems at all grade levels.

MSCI 597. Marine Science for Elementary Teachers (Marine Science Education 433). (3 hrs.); III. Prerequisites: six hours in biology. Prepare teachers of elementary grade children to conduct classes using marine-related materials.

MARINE SCIENCE (GEOLOGY)

MSCI 331. Coastal Marine Geology (Geology 431). (3 hrs.); III. Prerequisites: Six semester hours of geology. Onshore and nearshore geological processes, sedimentation patterns, and landform development.

MARINE SCIENCE (MICROBIOLOGY)

MSCI 566. Marine Microbiology (Microbiology 452). (5 hrs.); III. Prerequisites: general microbiology and environmental microbiology or consent of instructor. Microbiology and advanced biology students are introduced to the role of microorganisms in the overall ecology of the oceans and estuaries.

MARINE SCIENCE (OCEANOGRAPHY)

MSCI 464. Oceanography I: Physical, Chemical, and Geological (Oceanography 251). (5 hrs.); III. Prerequisites: college algebra and two semesters of general chemistry. Geology and physics courses helpful, but not required. This introductory course in oceanography integrates chemical, geological, and physical oceanography to provide a multidisciplinary approach to the fundamentals of oceanography.

MSCI 465. Oceanography II: Marine Biology (Oceanography 252). (5 hrs.); III. Prerequisites: eight semester hours of biological sciences. A general introduction to marine biology with emphasis on local fauna and flora.

MARINE SCIENCE (ZOOLOGY)

MSCI 341. Marine Invertebrate Zoology (Zoology 361). (6 hrs.); III. Prerequisites: 16 semester hours of zoology, including at least an introductory

course in invertebrate zoology. A concentrated study of the important free-living, marine and estuarine invertebrates of the Mississippi Sound and adjacent continental shelf of the northeastern Gulf of Mexico, with emphasis on the structure, classification, phylogenetic relationships, larval development, and functional processes.

MSCI 342. Marine Vertebrate Zoology and Ichthyology (Zoology 362). (6 hrs.); III. Prerequisites: 16 semester hours of zoology, including comparative anatomy or consent of instructor. A general study of the Marine Chordata, including lower groups and the mammals and birds, with most emphasis on the fishes.

MSCI 561. Comparative Histology of Marine Organisms (Zoology 408). (1 to 6 hrs.); III. Prerequisites: consent of instructor. A detailed study of the histological organization of representative marine organisms. Fixation, processing, and study of tissue using light microscopy, transmission electron microscopy, and scanning electron microscopy. The relationship between structural changes and physiological changes during life cycle of organism. Histopathology with respect to tissue responses to infection and to damage by toxic agents.

MSCI 563. Marine Fisheries Management (Zoology 442). (4 hrs.); III. Prerequisite: consent of instructor. An overview of practical marine fishery management problems.

MSCI 564. Behavior and Neurobiology of Marine Animals (Zoology 443). (4 hrs.); III. Prerequisites: 16 semester hours of zoology and/or psychology or consent of the instructor. Survey of behavior, neuroanatomy, and neurophysiology of marine animals with emphasis on the neural mechanisms underlying the behavior of selected invertebrates, fishes, birds, and mammals.

MSCI 565. Marine Ecology (Zoology 452). (5 hrs.); III. Prerequisites: 16 hours of biological science, including general zoology, general botany, and invertebrate zoology. A consideration of the relationship of marine organisms to their environment. The effects of temperature, salinity, light, nutrient concentration, currents, food, predation, and competition on the abundance and the distribution of marine organisms are considered.

MSCI 567. Parasites of Marine Animals (Zoology 461). (6 hrs.); III. Prerequisites: General parasitology or consent of instructor. Parasites of marine and estuarine animals; emphasis on morphology, taxonomy, life histories, and host-parasite relationships.

MSCI 569. Fauna and Faunistic Ecology of Tidal Marshes (Zoology 447). (4 hrs.); III. Prerequisites: 16 semester hours of biological sciences and junior standing or consent of instructor. Survey and discussion of the taxonomy, distribution, trophic relationships, reproductive strategies, and adaptation of tidal marsh animals, with emphasis on those occurring in northern Gulf marshes.

MSCI 570. Early Life History of Marine Fishes (Zoology 570). (4 hrs.); III. Prerequisites: ichthyology, fisheries, biology, ecology, and/or consent of instructor. Reproductive strategies and early developmental processes of marine fishes. Temporal and spatial distribution patterns, population dynamics, and ecological interactions of fish eggs and larvae; role of early stages of fishes in fisheries oceanography, marine ecology, and systematics; methods of sampling and identifying fish eggs and larvae; data quantification and analysis; rearing experiments; techniques for studying larval fish dynamics.

MSCI 568. Aquaculture (Zoology 464). (6 hours); III. Prerequisites: general zoology or invertebrate and vertebrate zoology or permission of instructor. A lecture, laboratory, and field course designed to introduce aquatic and marine biology students to the history, principles, problems, and procedures relating to the culture of commercially important crustaceans, fish, and mollusks along the Gulf Coast.

MSCI 571. Special Problems in Marine Science (Marine Science 400). III. Prerequisites and credit to be set by problem director. Supervised undergraduate research on specific problems in all areas of marine science.

MSCI 572. Special Topics in Marine Science (Marine Science 405). III. Prerequisites and credits to be set by instructor. Supervised undergraduate study in subject areas not available to students through other courses.

MSCI 576. Biological Electron Microscopy I (Zoology 530). (3 hours); III. Prerequisite: consent of instructor. A study of tissue preparation, theory, and techniques of ultramicrotomy, and an introduction to the fundamentals of electron microscopy.

MSCI 577. Biological Electron Microscopy II (Zoology 531). (3 hours); III. Prerequisite: MSCI 576. Continuation of MSCI 576; includes a study of special techniques and the operation and maintenance of an electron microscope.

MSCI 595. Basic Techniques in Marine Science for Teachers (Marine Science Education 431). (3 hours); III. Prerequisite: biology background or consent of instructor. A course designed to introduce the students, particularly in-service teachers, to the study of marine science and to promote the teaching of marine biology at all grade levels.

MSCI 596. Advanced Studies in Marine Science for Teachers (Marine Science Education 432). (3 hours); III. Prerequisite: MSCI 595. Trains teachers to conduct classes in marine science at the elementary and secondary school levels.

MARKETING

MKT 139. Cooperative Study I. (1 to 8 hrs.); on demand. Work experience in a field relevant to the student's career objectives and academic preparation. Experience is usually analogous to a freshman level course.

MKT 199. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various marketing subjects will be presented periodically to supplement the basic course offerings in marketing. Credit toward degree programs must be approved by the student's advisor.

MKT 239. Cooperative Study II. (1 to 8 hrs.); on demand. Work experience with an extension of exposure gained in MKT 139 or of a nature similar to a sophomore status course.

MKT 304. Marketing. (3-0-3); I, II. Prerequisite: ECON 201. Raw materials and products; organized exchange; analysis of market; market price; manufactured products; warehouses, cooperative societies; distribution organizations.

MKT 305. Purchasing. (3-0-3); II. Prerequisite: MKT 304 or consent of instructor. Purchasing functions and procedures, organization and operation of the purchasing department, inventory, quantity and quality controls, sources of supply, legal aspects of purchasing, evaluating purchase performance.

MKT 339. Cooperative Study III. (1 to 8 hrs.); on demand. Work experience with an in-depth exposure representative of the student's academic level and experience analogous to a junior level status.

MKT 350. Salesmanship. (3-0-3); I, II. The role of selling in the American economy; salesman's job and qualifications, development and application of sales techniques; selection, training, and management of the sales force.

MKT 351. Sales Management. (3-0-3); I. Prerequisites: MNGT 301. The changing role of the sales manager, developing a managerial and strategic framework concerning the sales manager's job; the behavior of a manager of people, money, and things within the sales sphere of business.

MKT 399. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various marketing subjects will be presented periodically to supplement the basic course offerings in marketing. Credit toward degree programs must be approved by the student's advisor.

MKT 439. Cooperative Study IV. (1 to 8 hrs.); on demand. Work experience with an in-depth exposure representative of the student's academic level and experience analogous to a senior level course.

MKT 450. Consumer Behavior. (3-0-3); II. Prerequisite: PSY 154 and SOC 101 recommended. Fundamental process of motivation, perception, and learning nature and influence of individual predisposition, group influence on marketing, consumer decision processes, aggregate consumer behavior.

MKT 451. Retail Merchandising. (3-0-3); on demand. Prerequisite: MKT 304. Establishing a store, store organization, buying, pricing and selling, planning and control, credit management, insurance tax reports and operating analysis, basic principles of retailing.

MKT 453. Marketing Policies. (3-0-3); II. Prerequisites: MNGT 301 and 6 hours of marketing courses. Overview of marketing functions, emphasis on formulation of policies and management of all marketing activities. Case studies are used.

MKT 476. Special Problems in Marketing. (1 to 3 hrs.); I, II, III. Prerequisites: senior standing and prior consent of head of department. Self-directed independent study on a specific problem, based on written proposal and justification submitted by student prior to registration. Each request will be considered on its own merit in relation to the special needs, interest, and abilities of the student.

MKT 539. Cooperative Study V. (1 to 8 hrs.); on demand. Work experience providing advanced specialized exposure in a career-related position. Available to upper division undergraduate and graduate students.

MKT 552. Marketing Research and Analysis. (3-0-3); I. Prerequisites: MKT 304 and MATH 354. Use of research to minimize error in decision analysis. Individual studies made by students in all areas of marketing, including advertising, packaging, and merchandising.

MKT 555. Advertising. (3-0-3); I. Prerequisite: MKT 304. Advertising as an indirect selling technique; emphasis on determining appeals, creating images, and developing coordinated campaigns. Actual campaign to be developed by each student; stress on ideas and concepts rather than mechanics.

MKT 599. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various marketing subjects will be presented periodically to supplement the basic course offerings in marketing. Credit toward degree programs must be approved by the student's advisor.

MATHEMATICS

MATH 091. Beginning Algebra. (3-0-3); I, II, III. Prerequisite: placement indicated by the Profile for Placement in Mathematics. A first course in algebra for students with no previous experience with algebra or who have been unsuccessful in attempting a course in Algebra I at the secondary school level. This is a course in the developmental studies curriculum.

MATH 093. Intermediate Algebra. (3-0-3); I, II, III. Prerequisite: Algebra I in secondary school or MATH 091 and placement indicated by the Profile for Placement in Mathematics. A second course in algebra, giving the student an opportunity to gain additional competency in algebra necessary for certain courses at the university. This is a course in the developmental studies curriculum.

MATH 110. Problem Solving Techniques. (1-0-1); I, II. A basic course emphasizing problem interpretation, translation, and solution. Hand-held electronic calculators used for the solution of problems.

MATH 123. Introduction to Statistics. (3-0-3); I, II. Basic concepts of probability, sampling, and the algebra of events. Properties of selected discrete and continuous distributions.

MATH 131. General Mathematics I. (3-0-3); I, II, III. A survey course which includes topics from the different specialties in mathematics. Counting and numeration, consumer mathematics, sequences, geometry, probability and statistics, and computers.

MATH 132. General Mathematics II. (3-0-3); II. A survey course in finite mathematics. Operations research, mathematics of gambling, matrices, theory of games and simulation.

MATH 135. Mathematics for Technical Students. (3-0-3); I, II, III. Practical mathematics as applied to technical programs. Fractions, ratio and proportion, percentage, elementary algebra, formulae, volumes, and right triangle trigonometry.

MATH 141. Plane Trigonometry. (3-0-3); I, II, III. Prerequisite: MATH 152 or placement indicated by the Profile for Placement in Mathematics. Trigonometric functions, trigonometric identities, inverse functions, and applications.

MATH 152. College Algebra. (3-0-3); I, II, III. Prerequisite: placement indicated by the Profile for Placement in Mathematics or MATH 093. Field and order axioms; equations, inequalities; relations and functions; exponentials; roots; logarithms; sequences; probability and statistics.

MATH 160. Mathematics for Business and Economics. (4-0-4); I, II. Prerequisite: High School Algebra II or equivalent. An introduction to finite mathematics and calculus. Systems of linear equalities and inequalities, matrix algebra, linear programming, differentiation and integration; applications.

MATH 173. Pre-Calculus Mathematics I. (3-0-3); I. Sets of logic; relations and functions; number systems through the reals; systems of equations.

MATH 174. Pre-Calculus Mathematics II. (3-0-3); I. Exponential, logarithmic, and trigonometric function; complex numbers, theory of equations; sequences and series.

MATH 175. Analytic Geometry and Calculus I. (4-0-4); I, II. Prerequisite: placement indicated by the Profile for Placement in Mathematics or credit in MATH 152 and MATH 141. Functions and graphs; limits; continuity; differentiation; applications of the derivative; integration; applications of the definite integral.

MATH 231. Mathematics for the Elementary Teacher I. (3-0-3); I, II, III. (For elementary teachers only.) Number systems, primes, and divisibility; fractions.

MATH 232. Mathematics for the Elementary Teacher II. (3-0-3); I, II, III. (For elementary teachers only.) Prerequisite: Mathematics 231. Algebraic sentences; real numbers; geometry of measurement; mathematical systems; introduction to calculators and computers; methods of presentation of mathematical concepts.

MATH 252. Boolean Algebra. (3-0-3); I. Prerequisite: MATH 152 or consent of the instructor. Study of the basic laws and operations of Boolean algebra; simplification techniques, circuit design.

MATH 260. FORTRAN Programming. (3-0-3); II. Prerequisites: DATA 202 or consent of instructor. Introduction to FORTRAN programming language. Application of mathematical techniques to problems in programming. Business, engineering, management, and modeling examples are employed to provide comprehensive knowledge of the language.

MATH 275. Analytic Geometry and Calculus II. (4-0-4); I, II. Prerequisites: MATH 175 and DATA 202. Differentiation and integration of exponential, logarithmic, and trigonometric functions; techniques of integration; numerical methods; improper integrals, infinite series; polar coordinates.

MATH 276. Analytic Geometry and Calculus III. (4-0-4); I, II. Prerequisite: MATH 275. Differential equations; vectors; differential calculus of functions of several variables; multiple integration; vector calculus.

MATH 301. Elementary Linear Algebra. (3-0-3); I. Prerequisite: MATH 175. Vector spaces; determinants; matrices; linear transformations; eigenvectors.

MATH 304. Mathematical Logic and Set Theory. (3-0-3); I. Propositional calculus; sets; relations; functions; Boolean algebras; cardinality.

MATH 310. Calculus IV. (3-0-3); II. Prerequisite: MATH 275. Algebraic and topological properties of the reals; limits and continuity; differentiation; infinite series; Riemann integration.

MATH 312. Numerical Analysis. (3-0-3); II. Prerequisite: MATH 275. A basic course in numerical analysis, including error analysis, series approximation, numerical integration techniques, practical applications of matrices, solution of simultaneous non-linear equations, and curve-fitting.

MATH 350. Introduction to Higher Algebra. (3-0-3); II. Prerequisite: MATH 304. Groups, rings, integral domains, related topics.

***MATH 353. Statistics.** (3-1-3); I, II, III. Prerequisite: high school Algebra II or equivalent. Introduction to basic statistics with applications.

***MATH 354. Business Statistics.** (3-1-3); I, II, III. Prerequisite: high school Algebra II or equivalent. Introduction to statistics with applications to business.

MATH 363. Differential Equations. (3-0-3); II. Prerequisite: MATH 275. Special types of first order differential equations; linear differential equations; operator methods; Laplace transforms; series methods; applications.

MATH 372. College Geometry. (3-0-3); I. Prerequisite: MATH 175. Rigorous development of elementary geometry as a logical system based upon postulates and undefined terms.

MATH 373. Principals and Techniques of Mathematics. (3-0-3); I, odd years. Prerequisite: MATH 275. For prospective teachers of secondary mathematics. Material from advanced mathematics extends topics of high school mathematics.

MATH 481. Mathematics for Engineers and Scientists. (3-0-3); I. Fourier series, ordinary and partial differential equations, special functions, and integral transforms. See PHYS 481.

MATH 504. Topology. (3-0-3); II. Prerequisites: MATH 304 and 350 or consent of instructor. Elementary set theory; topological spaces; metric spaces; compactness and connectedness; mapping of topological spaces; related topics.

MATH 510. Real Variables. (3-0-3); I. Prerequisite: MATH 310. Topological properties of Euclidean space; theory of differentiation and integration; sequences and series of functions, metric spaces.

MATH 511. Functional Analysis. (3-0-3); I. Prerequisites: MATH 301 and 510 or consent of instructor. Linear spaces; normed and Banach spaces; Hilbert spaces; applications to sequence spaces and Fourier series.

MATH 519. Probability. (3-0-3); I. Prerequisite: MATH 275. A first course in mathematical probability and its applications to statistical analysis.

MATH 520. Mathematical Statistics. (3-0-3); II. Prerequisite: MATH 519. Hypothesis testing and estimation; bivariate and multivariate distributions; order statistics; test of fit; nonparametric comparison of locations; distribution theory.

MATH 553. Statistical Methods. (3-0-3); I. Prerequisite: MATH 353. A second course in basic statistical methods with applications. Analysis of variance; general regression analysis; hypothesis testing; confidence intervals.

MATH 555. Nonparametric Statistics. (3-0-3); II. Prerequisite: MATH 353. Basic nonparametric statistical methods with applications.

MATH 573. Projective Geometry. (3-0-3); III. Prerequisite: MATH 372 or consent of instructor. A synthetic treatment of projective geometry leading into natural homogeneous coordinates; analytic projective geometry; conics; axiomatic projective geometry; some descendants of real projective geometry.

MATH 575. Selected Topics. (1 to 6 hrs.); I, II. Prerequisite: consent of instructor. Topics are offered which meet the needs of the students and which are not otherwise included in the general curriculum.

MATH 585. Vector Analysis. (3-0-3); I. Co-requisite: MATH 276. Vector algebra; vector functions of a single variable; scalar and vector fields; line integrals; generalizations and applications.

MATH 586. Complex Variables. (3-0-3); II. Prerequisite: MATH 310 or 585 or permission of instructor. Algebra of complex variables, analytic functions, integrals, power series; residues and poles; conformal mappings.

MATH 595. Mathematics Curriculum Workshop. (1 to 6 hrs.); III. Prerequisite: consent of instructor. New curricula development in mathematics.

*A student may receive credit toward graduation in only one—MATH 353 or 354.

MILITARY SCIENCE

MS 101. Introduction to Military Science. (2-0-2); I, II, III. Introduces the Military Science Commissioning Program, its goals, purpose, and structure. Explains the organization and makeup of our present-day military forces. Study of customs and traditions of the service. Introduces basic skills in rappelling, camping, and rifle marksmanship.

MS 102. U.S. Army: Its Evolution and Development. (2-0-2); II, III. Analyzes the purpose of our nation's security and defense establishments. Studies the roles of the U.S. Army, Reserves, and National Guard. Introduces the branches of the Army and their roles in the Army structure. Introduces basic skills in land navigation, orienteering, and first aid.

MS 201. Leadership Principles and Techniques. (2-0-2); I, II, III. Study of leadership and management principles related to both military and civilian applications. Introduction to counseling principles and techniques.

MS 202. Instructional Techniques and Survey of Army Career Fields. (2-0-2); II, III. A study of methods of instruction, physical readiness training, and drill and ceremonies. An analysis of the roles and missions of the branches of the Army as they relate to career fields. A study of advanced first aid procedures, leadership, and roles of officers and noncommissioned officers.

MS 301. Advanced Military Science. (2-2-3); I. Study of general military subjects relating to map reading, decision making process, and military operations orders.

MS 302. Advanced Military Science. (2-2-3); II. Application of leadership and management skills; branches of the Army, military weapons, and electronic communications and tactics.

MS 339. Cooperative Education in Military Leadership. (4-0-4); III. Attendance at ROTC Advanced Summer Camp. (Six weeks in duration.)

MS 401. Advanced Military Science. (2-2-3); I. Development of cadet awareness of general military subjects to include briefing techniques, military justice, and military law.

MS 402. Advanced Military Science. (2-2-3); II. Development of cadet awareness in ethics and professionalism; and exposure to military administrative procedures, and training and logistics management.

MINING TECHNOLOGY

MIN 101. Introduction to Mining and Reclamation. (3-0-3); I, II. A survey of all phases of the mining industry, emphasizing the importance of safety management and including areas such as production, laws, history, geology, coal analysis and preparation, environmentalism, marketing, uses, economics,

reclamation, labor relations, and transportation. Both underground and surface mining techniques are introduced.

MIN 103. Mine Drafting. (1-4-3); II. Prerequisite: GCT 103. The adaptation of basic drawing and drafting skills to mine layout and design. Emphasis is placed upon accurate pictorial interpretation of measurement and layout and upon the development of mine drafting skills.

MIN 104. Underground Mine Safety. (3-0-3); II. A study of underground mine safety procedures as required by the Kentucky Department of Mines and Minerals and the United States Department of Labor's Mine Safety and Health Administration.

MIN 200. Mine Surveying. (1-4-3); I. Prerequisites: GCT 103 and CON 102. The use of the transit in underground and above-ground surveying. Techniques are used to teach the student to locate benchmarks, plot shafts, and passageways, and other details in mine surveying.

MIN 201. Mine Equipment. (3-0-3); I. Prerequisite: MIN 101. An analysis of various types of mining equipment, including design, function, methods of control applications, and safety of operation.

MIN 202. Mine Design, Ventilation, and Drainage. (3-0-3); I. Prerequisite: MIN 101. An analysis of approaches to underground mine design, ventilation, and drainage. Safety factors in design, ventilation, and drainage are used.

MIN 210. Internship. (1 to 8 hrs); III. The student will gain experience in actual work-place situation. The student will work in an approved organization under the direction of a supervisor for a specified period of time. Credit will be earned in the relation to the amount of time worked. The faculty will visit the student at the job site, and the student will be expected to complete a written evaluation of his or her work experience.

MIN 301. Mine Electrical Systems. (3-0-3); I. Prerequisites: EET 240 and MIN 101. Analysis and function of mine electrical systems, preventative maintenance, and the inspection of the electrical equipment.

MIN 302. Coal Analysis and Preparation. (3-0-3); II. A study of the various techniques used in analyzing and preparing coal, resulting in findings of coal characterizations such as sulfur, ash, BTU's, and moisture content. The student learns the process of cleaning, sizing, and mixing coal. Safe disposal of wastes and by-products from the preparation of coal is stressed.

MIN 303. Mine Laws and Management. (3-0-3); II. Prerequisite: MIN 101. A study of mining laws and their relationship to mine operations and management. An analysis is made of state and federal safety codes, their interpretations and their applications.

MIN 304. Mine Systems Technology. (3-0-3); II. Prerequisite: MIN 101. A basic study of the engineering and management approaches to mine systems design and operation. The course is designed to enable the mine technician to understand the planning, development, and installation of safe, effective, and efficient mine systems.

MIN 305. Surface Mining. (3-0-3); I. Prerequisite: MIN 101. The student learns production and safety techniques, laws, equipment studies, and management of surface mining operations.

MIN 306. Energy Conservation Technology. (3-0-3); II. The student will learn applied techniques in energy conservation technology for businesses, factories, homes, schools, and other structures that are heated or cooled by various energy resources. The importance of energy conservation to our society is stressed.

MIN 401. Coal Industry Economics. (3-0-3); I. Prerequisite: MIN 101. A study of the various economic aspects related to the coal industry, including economic history, supply and demand, industry structure, consumption and distribution patterns, social costs, and the future uses of energy resources.

MUSIC (CONDUCTING)

MUSC 271. Basic Conducting. (2-0-2); I. Fundamentals of score reading and baton technique.

MUSC 471. Choral Conducting. (2-0-2); II. Baton technique, rehearsal procedures, choral diction, and style and interpretation of choral works.

MUSC 472. Instrumental Conducting. (2-0-2); II. Baton technique, rehearsal procedures, and style and interpretation of instrumental works.

MUSC 473. Rehearsal Techniques for Jazz Ensembles. (2-0-2); on demand. Special techniques needed in rehearsing jazz, pop, and rock ensembles.

MUSIC (EDUCATION)

MUSE 221. Music for the Elementary Teacher. (2-0-2); I, II, III. Prerequisite: MUST 100, 101, or 131. Music fundamentals and methods for teaching music to elementary school children.

MUSE 230. Introduction to Music Education. (1-0-1); I, II. Orientation to music teaching in the public schools.

MUSE 325. Materials and Methods for Elementary Grades. (2-2-3); I. Prerequisite: MUSE 230. Materials and methods for the elementary school with emphasis on the teaching of musical concepts through developmental techniques.

MUSE 335. Field Experience. (1 to 3 hrs.); on demand. Two full days weekly of teaching under supervision in public schools in nearby communities.

MUSE 336. Field Experience. (1 to 3 hrs.); on demand. Continuation of MUSE 335.

MUSE 375. Vocal Materials and Methods. (2-0-2); II. Prerequisite: MUSE 325. The teaching of general music in the junior and senior high schools with emphasis on choral activities.

MUSE 376. Instrumental Materials and Methods. (2-0-2); II. Prerequisite: credit for applied music in at least two of the following fields: strings, brasswinds, woodwinds, percussion. Instructional procedures and materials used in instrumental teaching from the elementary grades through high school.

MUSE 377. Instrumental Repair and Maintenance. (1-1-1); I. Demonstration and practice in simple repairs and maintenance of band and orchestral instruments.

MUSE 378. Piano Pedagogy. (2-1-2); II. Survey and evaluation of materials and methods for teaching class and private piano.

MUSE 578. Teaching of Percussion. (2-0-2); on demand. A study of the development of percussion instruments, literature, and performing techniques.

MUSE 579. Marching Band Workshop. (2-0-2); I. III. Techniques of preparing marching bands for performance.

MUSE 595. Voice Pedagogy. (3-0-3); on demand. An introduction to the physiological, acoustical, and phonetic bases of singing and private voice instruction. Emphasis on the relationship between scientific fact and the practical application of principle through the use of imagery and phonetic choice.

MUSIC (CLASS APPLIED)

MUSG 123. Class Piano I. (0-2-1); I, II.

MUSG 124. Class Piano II. (0-2-1); I, II.

MUSG 126. Traditional English and American Dance. (0-2-1); on demand. Technique and style of American and English country dances in the circle, square, and contra formation.

MUSG 135. Class Guitar I. (0-2-1); I, II.

MUSG 136. Class Classical Guitar. (0-2-1); I, II.

MUSG 137. Class Banjo. (0-2-1); on demand.

MUSG 183. Studio Improvisation. (0-2-1); I, II. Jazz styles, improvisational theories and techniques, with emphasis on small group playing and supervised improvisation. May be repeated for credit.

MUSG 211. Class Woodwinds. (0-2-1); I. Not for woodwinds majors.

MUSG 212. Advanced Woodwinds Techniques. (0-2-1); II. Prerequisite: MUSG 211 or prior playing experience with woodwind instruments. May be substituted for MUSG 211.

MUSG 213. Class Brasswinds. (0-2-1); I. Not for brasswinds majors.

MUSG 214. Advanced Brasswind Techniques. (0-2-1); II. Prerequisite: MUSG 213 or prior playing experience with brasswind instruments. Performance techniques and teaching procedures for brasswind instruments. May be substituted for MUSG 213.

MUSG 215. Class Harp. (0-2-1); on demand.

MUSG 217. Class Percussion. (0-2-1); I, II.

MUSG 223. Class Piano III. (0-2-1); I, II.

MUSG 224. Class Piano IV. (0-2-1); I, II.

MUSG 226. Class Strings. (0-2-1); I, II.

MUSG 235. Class Guitar II. (0-2-1); I, II.

MUSG 239. Class Voice. (0-2-1); I, II.

MUSG 245. Jazz Keyboard I. (0-2-1); I. Prerequisite: MUSG 124 or consent of the instructor. An introduction to jazz keyboard techniques with emphasis on ensemble playing.

MUSG 246. Jazz Keyboard II. (0-2-1); II. Prerequisite: MUSG 245. Continuation of MUSG 245.

MUSG 345. Jazz Keyboard III. (0-2-1); I. Prerequisite: MUSG 246. Jazz keyboard techniques with emphasis on solo playing.

MUSG 346. Jazz Keyboard IV. (0-2-1); II. Prerequisite: MUSG 345. Continuation of MUSG 345.

MUSG 379. Double Reed Making. (0-2-1); on demand. Concepts and skills of making double reeds, oboe through contrabassoon. May be repeated for credit.

MUSG 383. Studio Improvisation. (0-2-1); I, II. Prerequisite: four hours of credit in MUSG 183. May be repeated for credit.

MUSG 583. Studio Improvisation. (0-2-1); I, II. Prerequisite: four hours of credit in MUSG 383. May be repeated for credit.

MUSIC (HISTORY AND LITERATURE)

MUSH 161. Literature of Music I. (2-0-2); I. Designed to promote intelligent listening and understanding of music of various periods and styles.

MUSH 162. Literature of Music II. (2-0-2); II. Continuation of MUSH 161.

MUSH 261. Music Listening. (3-0-3); I, II. An introduction to the various styles, periods, and media of music. A general education elective; does not count toward fulfilling music degree requirements.

MUSH 329. Church Music. (2-0-2); on demand. Brief history; techniques of hymn and anthem playing and/or directing; planning the worship service.

MUSH 361. History of Music I. (3-0-3); I. A survey of the history of music in Western Europe from its ancient Greek beginnings through the early eighteenth century.

MUSH 362. History of Music II. (3-0-3); II. The history of music in Western Europe, Russia, and America from the eighteenth century to the present.

MUSH 365. Jazz History and Literature. (3-0-3); I. A survey of jazz history from its beginning (ca. 1850) to the present.

MUSH 565. Music in America. (3-0-3); II. A survey of the history of American music from colonial times to the present.

MUSH 581. Literature of the Piano. (3-0-3); I. Survey of the keyboard music from the sixteenth century to the present.

MUSH 591. School Band Literature. (2-0-2); on demand. Examination and criticism of music for training and concert use by groups at various levels of attainment.

MUSH 592. Vocal Literature. (3-0-3); on demand. A survey of music for solo voice ensemble, sixteenth through twentieth centuries; stylistic traits, types of composition, sources, and performance practices.

MUSIC (ENSEMBLES)

Ensembles listed with two course numbers may be repeated for credit, after earning four hours of lower division credit (100 level), a student may enroll for upper division credit (300 level).

MUSM 184, 384. Guitar Ensemble. (0-2-1); I, II.

MUSM 135, 335. Clarinet Choir. (0-2-1); on demand.

MUSM 136, 336. Woodwind Quintet. (0-2-1); on demand.

MUSM 161, 361. Trumpet Choir. (0-2-1); on demand.

MUSM 162, 362. Trombone Choir. (0-2-1); on demand.

MUSM 163, 363. Tuba and Euphonium Ensemble. (0-2-1); on demand.

MUSM 167, 367. Brass Choir. (0-2-1); I, II. Open to brass players with the consent of the instructor.

MUSM 168, 368. Brasswind Ensemble. (0-2-1); on demand.

MUSM 169, 369. Percussion Ensemble. (0-2-1); I, II.

MUSM 170, 370. Concert Band. (0-2-1); II. Open to all students. Admission by audition.

MUSM 171, 371. Symphony Band. (0-2-1); II. Open to all students. Admission by audition.

MUSM 172, 372. Marching Band. (0-5-1); I. Open to all students. Required for wind and percussion music education students. Upper division credit after earning two hours of credit.

MUSM 178, 378. String Ensemble. (0-2-1); on demand.

MUSM 179, 379. Orchestra. (0-2-1); I, II. Open to all string students and to selected wind and percussion players as needed.

MUSM 181, 381. Jazz Ensemble. (0-2-1); I, II. Open to all students. Admission by audition.

MUSM 182, 382. Jazz Vocal Ensemble. (0-2-1); I, II. Open to all students. Admission by audition.

MUSM 183, 383. Traditional Music Ensemble. (0-2-1); on demand.

MUSM 187. Piano Sight Reading I. (0-2-1); I, II. Designed to develop sight reading competence. Required for piano majors.

MUSM 188. Piano Sight Reading II. (0-2-1); I, II. Continuation of MUSM 187.

MUSM 189. Piano Ensemble. (0-2-1); I, II. Preparation and performance of piano ensemble literature.

MUSM 190, 390. Vocal Ensemble. (0-2-1); on demand.

MUSM 191, 391. University Chorus. (0-3-1); I, II. Open to all university students interested in singing.

MUSM 192, 392. Concert Choir. (0-2-1); I, II. Open to all students. Admission by audition.

MUSM 193, 393. Chamber Singers. (0-3-1); I, II. Selected group of 16 singers. Admission by audition.

MUSM 194, 394. Opera Workshop. (0-2-1); on demand. Prerequisite: consent of instructor. An introduction to the techniques of musical theatre with emphasis on the integration of music and action-dramatic study of operatic roles.

MUSM 200/400. Student Recital. (0-1-0); I, II. Music students and faculty present a recital each Thursday afternoon. Music students are required to take this course each semester.

MUSM 387, 388. Accompanying I, II. (0-2-1); I, II. Two hours of studio accompanying per week.

MUSM 487, 488. Recital Accompanying. (0-2-1); I, II. Prerequisite: consent of piano faculty. Performance of accompaniments for junior or senior recitals. Consent of piano faculty required.

MUSIC (PRIVATE APPLIED)

Private applied music courses may be repeated for credit. After completing at least four semesters of credit at the 200 level with a minimum grade of C, a student may enroll for courses at the 400 level. At least three semesters of upper division credit in the principal performing area are required for graduation with a major or area of concentration in music.

MUSP 200, 400. Applied Music Lab.

MUSP 201, 401, 501. Private Flute.

MUSP 202, 402, 502. Private Oboe.

MUSP 203, 403, 503. Private Bassoon.

MUSP 204, 404, 504. Private Clarinet.

MUSP 205, 405, 505. Private Saxophone.

MUSP 206, 406, 506. Private Horn.

MUSP 207, 407, 507. Private Trumpet.

MUSP 208, 408, 508. Private Euphonium.

MUSP 209, 409, 509. Private Trombone.

MUSP 210, 410, 510. Private Tuba.

MUSP 216, 416, 516. Private Harp.

MUSP 219, 419, 519. Private Percussion.

MUSP 227, 427, 527. Private Violin.

MUSP 228, 428, 528. Private Viola.

MUSP 229, 429, 529. Private Cello.
 MUSP 230, 430, 530. Private Double Bass.
 MUSP 235, 435, 535. Private Classical Guitar.
 MUSP 236, 436, 536. Private Guitar.
 MUSP 237, 437, 537. Private Electric Bass.
 MUSP 240, 440, 540. Private Voice.
 MUSP 241, 441, 541. Private Harpsichord.
 MUSP 242, 442, 542. Private Organ.
 MUSP 243, 443, 543. Private Piano.
 MUSP 262, 462, 562. Private Composition.
 MUSP 263, 463, 563. Private Conducting. With the consent of the instructor.

MUSP 360. Junior Recital. (2-0-2); I, II, III. Prerequisite: approval of the music faculty. A solo public recital of at least 30 minutes.

MUSP 450. Senior Recital. (2-0-2); I, II, III. Prerequisite: approval of the music faculty. A solo public recital of approximately 30 minutes duration.

MUSP 460. Senior Recital. (3-0-3); I, II, III. Prerequisite: approval of the music faculty. A solo public recital of approximately 60 minutes duration.

MUSIC (THEORY AND COMPOSITION)

Music students should enroll in the appropriate music theory and music reading courses each semester until the completion of MUST 233, and MUST 237.

MUST 100. Rudiments of Music. (1-2-2); I, II, III. Fundamentals of music notation and basic elements of music theory. Recorder playing, autoharp accompaniment, and singing. Prerequisite for MUSE 221.

MUST 101. Introduction to Music Theory. (1-2-2); I, II. An introduction to the basic elements of music theory.

MUST 102. Introduction to Music Reading. (1-2-2); I, II. An introduction to the concepts and applications of reading music, vocally and instrumentally.

MUST 131. Music Theory I. (2-2-3); I, II. Prerequisite: MUST 101 or demonstration of equivalent competencies on the Music Department Entrance Examination. An extensive study of the basic elements of music (calligraphy, rhythm, meter, pitch, materials), emphasizing monodic, two and three-voice textures; timbral qualities of the instruments; basic diatonic harmony.

MUST 132. Music Theory II. (2-2-3); I, II. Prerequisite: MUST 131 or demonstration of equivalent competency on the Music Department Entrance Examination. A continuation of Music Theory I, with emphasis on three and four-voice textures, figured bass, secondary dominants, binary and ternary forms, transposition and scoring for small ensembles, and tonality changes. Supportive ear training to accompany these areas where applicable.

MUST 133. Music Reading I. (0-2-1); I, II. Prerequisite: MUST 102 or determination of equivalent competency by Music Department Entrance Examination. An ensemble approach to the development of basic skills of tonal and rhythmic reading through supervised vocal and instrumental reading experiences.

MUST 135. Music Reading II. (1-2-2). Prerequisite: MUST 133. Continuation of MUST 133.

MUST 233. Music Reading III. (2-2-3); I, II. Prerequisite: MUST 135 or determination of equivalent competency by the Music Department Entrance Examination. A continuation of Music Reading II, with emphasis on the individual development of vocal and instrumental music reading skills.

MUST 236. Music Theory III. (2-1-2); I, II. Prerequisite: MUST 132 or determination of equivalent competency by Music Department Entrance Examination. A continuation of Music Theory II, with emphasis on the broadening of total and rhythmic vocabulary through study of chromatic harmony and more complex metric rhythmic patterns.

MUST 237. Music Theory IV. (2-1-2); I, II. Prerequisite: MUST 236 or determination of equivalent competency by the Music Department Entrance Examination. A continuation of Music Theory III, with emphasis upon Post-Impressionist twentieth century materials and styles.

MUST 263. Elementary Composition I. (1-1-2); on demand. Prerequisite: MUST 237 or consent of the instructor. Study and practice of basic formal compositional principles.

MUST 264. Elementary Composition II. (1-1-2); on demand. Prerequisite: MUST 263. Continuation of MUST 263.

MUST 331. Counterpoint. (2-0-2); on demand. Prerequisite: MUST 132. Writing of sixteenth and eighteenth century strict and free counterpoint, canon, invention, fugue. Some twentieth century techniques.

MUST 363. Intermediate Composition I. (1-1-2); on demand. Prerequisite: MUST 264. Study and writing of original creative work. One hour weekly in private study; one hour in composition seminar-colloquium.

MUST 364. Intermediate Composition II. (1-1-2); on demand. Prerequisite: MUST 363. A continuation of MUST 363.

MUST 433. Arranging for Jazz Ensembles I. (2-0-2); on demand. Techniques of arranging for large and small jazz ensembles.

MUST 434. Arranging for Jazz Ensembles II. (2-0-2); on demand. Prerequisite: MUST 433. Continuation of MUST 433.

MUST 465. Form Analysis. (2-0-2); on demand. Prerequisite: MUST 237, 233. A study of the elements of musical design through aural and score analysis.

MUST 531. Arranging. (2-0-2); on demand. Prerequisite: MUST 237, 233, or the equivalent. Scoring, arranging, transcribing, of selected or original materials for voices and/or instruments.

MUST 532. Advanced Arranging. (2-0-2); on demand. Prerequisite: MUST 531. Continuation of MUST 531.

MUST 563. Advanced Composition I. (1-1-2); on demand. Prerequisite: MUST 364. Study, writing, and performance of students' original creative work. Private conferences and composition seminar in colloquium.

MUST 564. Advanced Composition II. (1-1-2); on demand. Prerequisite: MUST 563. Continuation of MUST 563.

MUSW 476. Special Problems in Music. I, II, III. (1 to 3 hrs.). Prerequisite: Consent of instructor. Independent study and research in an area of the student's choosing. Requires completion of paper or other tangible evidence of the results of the study.

NURSING

NUR 200. Fundamentals of Nursing. (4-9-7); I, II. Prerequisite: official acceptance in the nursing program. Corequisites: BIOL 331—Human Anatomy, PSY 156—Life-Span Developmental Psychology and PSY 154—Introduction of Psychology. A study of nursing knowledge and skills involved in meeting the basic human need of all patients. This includes hygiene, rest, comfort, nutrition, asepsis, patient safety, nursing observation, and communication. Interpersonal relationships are integrated into the total content. The process of assessing patients' needs and determining appropriate nursing actions are introduced. Special emphasis is placed on caring for the elderly patient. The content is designed to help the beginning nursing student to better understand his or her place in the nursing profession and on the health team.

NUR 201. Maternity Nursing. (5-9-4); I, II (half semester course). Prerequisite: successful completion of the first semester of the nursing program. Corequisites: BIOL 332—Human Physiology; CHEM 100 and CHEM 100A—Basic Chemistry; and SOC 101—General Sociology. A family centered course utilizing the basic needs and the nursing process approach to studying the nursing aspects of the maternity cycle. Complications of the maternity cycle are viewed as interferences to homeostasis. Selected clinical experiences are required.

NUR 202. Psychiatric Nursing. (5-9-4); I, II (half semester course). Prerequisite: successful completion of the first semester of the nursing program. Corequisites: BIOL 332—Human Physiology; CHEM 100 and CHEM 100A—Basic Chemistry; and SOC 101—General Sociology. A study of human mental health, the manifestations of and interventions for the common mental disorders that interfere with the individual's satisfaction of basic needs are discussed. The nursing process is utilized to facilitate the student's therapeutic use of self in nursing interventions. Concomitant selected clinical experiences are required.

NUR 300. Child-Adult Nursing I. (5-9-8); I, II. Prerequisite: successful completion of the first year of the nursing program. Corequisites: ENG 101—English Composition; HEC 320—Elements of Nutrition; and BIOL 217—Elementary Medical Microbiology or BIOL 317—Principles of Microbiology. Theory and correlated nursing care of individuals from infancy throughout the life span who have interferences with one or more of their basic needs. The scope includes nursing aspects of major interferences with homeostasis during illness requiring hospitalization. Utilizing the systems approach, the focus is upon major health problems of the child or adult and ways these problems interfere with meeting basic human needs. The use of the nursing process is continued. Concomitant clinical experiences are required.

NUR 301. Child-Adult Nursing II. (5-15-10); I, II. Prerequisite: successful completion of the first three semesters of the nursing curriculum. Corequisites: NUR 310—Trends in Nursing and ENG 102—English Composition II. A continuation of Child-Adult Nursing I with an emphasis on more in-depth assessments and more complex interventions. Increased clinical experiences are required.

NUR 310. Nursing Trends. (2-0-2); I, II. Prerequisite: successful completion of the first three semesters of the nursing program. Consideration of issues in nursing and the relationship of nursing to the social order. The problem, responsibilities, and challenges of the registered nurse as a member of the nursing profession and the community.

OFFICE ADMINISTRATION

OADM 111. Beginning Typewriting. (3-0-3); I, II. Mastery of the keyboard and machine techniques. Emphasis on development of rapid and accurate typewriting skills and application of these skills to fundamental communication forms, manuscripts, and tabulation.

OADM 112. Intermediate Typewriting. (3-0-3); I, II. Prerequisite: OADM 111 or equivalent, or consent of instructor. Development of speed and accuracy. Business letter styles, manuscripts, and various business forms emphasized.

OADM 131. Shorthand I (3-0-3); I. Prerequisite: OADM 111 or equivalent. Fundamental principles of Gregg Shorthand. The development of skill in reading, writing, and transcribing. Designed for students with no previous shorthand instruction.

OADM 136. Business Calculations. (3-0-3); I, II. Business problem solutions with aid of calculating machines. Payroll, banking, credit, insurance, investments, depreciation, amortization, weights and measures, distribution of goods, statistics.

OADM 139. Cooperative Study I. (1 to 8 hrs.); on demand. Work experience in a field relevant to the student's career objectives and academic preparation. Experience is usually analogous to a freshman level course.

OADM 190. Office Accounting. (3-0-3); I, II, III. Accounting systems and financial records for professions, small businesses, and institutions. Practice sets simulate accounting cycle.

OADM 199. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various office administration subjects will be presented periodically to supplement the basic course offerings in office administration. Credit toward degree programs must be approved by the student's advisor.

OADM 210. Word Processing I. (3-0-3); I. Prerequisites: OADM 111, ENG 101. Introduction to word processing concepts, review of English mechanics, editing and proofreading applications, filing rules and systems.

OADM 213. Advanced Typewriting. (3-0-3); II. Prerequisite: OADM 112 or equivalent. Production typewriting stressed. Emphasis on typing business letters, memorandums, manuscripts, statistical reports, and specialized business forms and reports.

OADM 220. Word Processing II. (3-0-3); II. Prerequisites: OADM 112 and OADM 210. Introduction to machine dictation/transcription; text-editing word processing application; electronic storage and retrieval.

OADM 232. Shorthand II. (3-0-3); II. Prerequisite: OADM 131 or equivalent. Mastery of principles of Gregg Shorthand emphasizing speed and accuracy in reading, writing, vocabulary, punctuation, spelling, and mailability.

OADM 234. Specialized Office Procedures. (3-0-3); II. Prerequisite: OADM 220. Medical secretarial studies student will also need AHS 302 as a prerequisite. Materials, methods, techniques for the legal and medical secretary, with emphasis on office routine, information processing, human relations. Students work on individualized basis.

OADM 239. Cooperative Study II. (1 to 8 hrs.); on demand. Work experience with an extension of exposure gained in OADM 139 or of a nature similar to a sophomore status course.

OADM 321. Business Communications. (3-0-3); I, II, III. Prerequisites: ENG 102 and typewriting competency. Current principles in business letter and report writing, stressing human relations approach.

OADM 331. Shorthand III. (3-0-3); I. Prerequisite: OADM 232 or equivalent. Accuracy and speed in writing and transcribing Gregg Shorthand. Emphasis on mailability.

OADM 339. Cooperative Study III. (1 to 8 hrs.); on demand. Work experience with an in-depth exposure representative of the student's academic level and experience analogous to a junior level status.

OADM 340. Simulated Office Education. (3-0-3); I, II. Prerequisites: OADM 112, OADM 136, and OADM 220. Bridging the gap between theoretical classroom learning and employment preparation through simulation of the real work involved in office occupations within a specific company.

OADM 363. Office Management. (3-0-3); I, II, III. Management of data; effects of environment as it relates to production in the office. Human relations, systems analysis, and implication of automated data processing.

OADM 398. Supervised Field Experience. (1 to 3 hrs.); I, II, III. To provide work experience in an occupational area. Student works under supervision in approved position. Credit commensurate with time worked, type of work, variety of work experience.

OADM 399. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various office administration subjects will be presented periodically to supplement the basic course offerings in office administration. Credit toward degree programs must be approved by the student's advisor.

OADM 431. Shorthand IV. (3-0-3); on demand. Prerequisite: OADM 331 or equivalent. Dictation and transcription of five-minute speed tests and mailable letters of increased difficulty. Office-style dictation and transcription.

OADM 439. Cooperative Study IV. (1 to 8 hrs.); on demand. Work experience with an in-depth exposure representative of the student's academic level and experience analogous to a senior level course.

OADM 475. Methods of Teaching Business Subjects. (4 to 5 hrs.); I. Prerequisites: senior standing and formal admission to teacher education program. Introduction to vocation business and office education; approaches, objectives, lesson plans, skill building techniques, methods, materials, teaching aids, testing, measurement, grading. Secretarial studies majors register for 4 hrs. credit and basic business majors register for 5 hrs. credit.

OADM 476. Special Problems in Office Administration. (1 to 3 hrs.); I, II, III. Prerequisite: open to majors and minors in office administration with prior consent of advisor. This course is an independent study of office administration problems of special interest. Students must present in writing a suggested problem and justification for the study prior to registration. Each request will be considered on its own merit in relation to the special needs of the student.

OADM 539. Cooperative Study V. (1 to 8 hrs.); on demand. Work experience providing advanced specialized exposure in a career-related position. Available to upper division undergraduate and graduate students.

OADM 599. Selected Workshop Topics. (1 to 4 hrs.); on demand. Workshops on various office administration subjects will be presented periodically to supplement the basic course offerings in office administration. Credit toward degree programs must be approved by the student's advisor.

PERSONAL DEVELOPMENT INSTITUTE

PDI 100. Personal Development. (1-0-1); I, II. This is an elective course structured in the Institute format. The course covers such areas as: personality enhancement, attitude improvement, psychology of achievement, visual poise, sharpening social skill, the art of entertaining, voice improvement, speech and conversation, vocabulary expansion, interview preparation, and improved interpersonal relationships.

PHILOSOPHY

PHIL 200. Introduction to Philosophy. (3-0-3); I, II, III. Alternative views concerning the nature of reality, knowledge, truth, God, man, art, and the good life.

PHIL 300. Philosophy of Science. (3-0-3); II. Scientific methods and explanation; the role of mathematics in empirical science; and theories of matter, space, time, motion, and causality.

PHIL 303. Social Ethics. (3-0-3); I, II, III. Theoretical and practical problems of moral conduct and proposed solutions to them.

PHIL 306. Logic. (3-0-3); I, II. Informal fallacies, the methods of constructing deductive and inductive arguments, and the ways of justifying or testing them.

PHIL 307. Philosophy of Religion. (3-0-3); II. Proposed sources of religious knowledge and the meaning of God, Jesus, sin, and salvation in four major theories of the universe.

PHIL 308. Philosophy of the Arts. (3-0-3); I. Major theories of art, aesthetic experience, the structure of art, problems in aesthetics, and art criticism.

PHIL 309. Existentialism. (3-0-3); I. Theories of the nature of reality, knowledge, and the good life from the point of view of those who appeal to our "existing situation" rather than reason.

PHIL 310. Analysis of Ideas. (3-0-3); on demand. Prerequisite: PHIL 200 or consent of the department. Analysis of statements and the application of this technique to basic statements in the various sciences.

PHIL 311. Ordinary Language Philosophy. (3-0-3); on demand. Prerequisite: any one of the following courses: PHIL 200, 505, 506. An introduction to a contemporary philosophy which attempts to solve philosophical problems by appealing to language as ordinarily used.

PHIL 312. Symbolic Logic. (3-0-3); on demand. Prerequisite: permission of instructor. Introduction to methods of constructing and justifying deductive arguments as they have been developed by the use of modern symbols.

PHIL 313. American Philosophy. (3-0-3); on demand. Prerequisite: PHIL 200 or consent of the department. A survey of philosophical thought in America from the eighteenth century to the present with special attention given to the Pragmatists.

PHIL 389. Honors Seminar in Philosophy. (3-0-3); I. Prerequisite: membership in the Junior-Senior Honors Program. Contemporary moral issues are examined, discussed, and evaluated. The topics may vary from semester to semester.

PHIL 410. Contemporary Philosophy. (3-0-3); II. An examination, interpretation, and evaluation of the philosophic ideas of leading representatives of twentieth-century philosophies.

PHIL 476. Special Problems. (1 to 3 hrs.); I, II. Prerequisite: 12 hours in philosophy or consent of the department. The student selects an approved topic in philosophy on which to do a directed study.

PHIL 505. History of Philosophy I. (3-0-3); I. Ancient and Medieval philosophy; a history of Western philosophy from Thales (624-546 B.C.) to the beginning of the Renaissance.

PHIL 506. History of Philosophy II. (3-0-3); II. Modern and contemporary philosophy; a history of Western philosophy from the Renaissance to the present.

PHYSICAL EDUCATION

PHED 100. Golf. (0-2-1); I, II, III. Emphasis on skill, knowledge, and techniques for individual participation.

PHED 101. Tennis. (0-2-1); I, II, III. Emphasis on skill, knowledge, tactics, and techniques for individual participation.

PHED 102. Badminton. (0-2-1); I, II, III. Emphasis on skill, knowledge, tactics, and techniques for individual participation.

PHED 103. Archery. (0-2-1); I, II, III. Emphasis on skill, knowledge, tactics, and techniques for individual participation.

PHED 104. Gymnastics. (0-2-1); I, II. Emphasis on self-testing activities.

PHED 106. Wrestling. (0-2-1); I, II. Holds, escapes, and conditioning necessary to perform skills.

PHED 107. Bowling. (0-2-1); I, II, III. Basic movement skills involved in bowling.

PHED 108. Restricted Physical Education. (0-2-1); I, II. Students with either a structural or functional problem. (May be repeated one time for credit.)

PHED 109. Elementary Horsemanship. (0-2-1); I, II. (Same as AGR 109.)

PHED 110. Judo. (0-2-1); II. Throws used in sport judo.

PHED 111. Angling. (0-2-1); I, II, III. Skills used in fly and bait casting.

PHED 112. Handball. (0-2-1); I, II. Emphasis on knowledge, tactics, skill, and techniques for individual participation.

PHED 113. Soccer. (0-2-1); I, II. Techniques and participation in soccer.

PHED 114. Track and Field. (0-2-1); I, II. Emphasis on skill, knowledge, and techniques for individual participation.

PHED 115. Apparatus. (0-2-1); I, II. Skills used in self-testing activities.

PHED 116. Lacrosse. (0-2-1); I. Basic skills in lacrosse.

PHED 117. Stunts and Tumbling. (0-2-1); I, II. Skills that promote strength, individual control and development, and group perfection.

PHED 118. Volleyball. (0-2-1); I, II, III. Rules, techniques, and participation in volleyball.

PHED 119. Intermediate Horsemanship. (0-2-1); I, II. Prerequisite: PHED 109 or equivalent. (Same as AGR 119.)

PHED 120. Basic Rhythms. (0-2-1); I, II, III. Skills and knowledge in fundamentals of dance.

PHED 121. Modern Dance. (0-2-1); I, II. Movement as means of self expression.

PHED 122. Social Dance. (0-2-1); I, II. Steps and combination of popular dances.

PHED 123. Folk and Square Dancing. (0-2-1); I, II. Movements of American square dance.

PHED 124. Canoeing. (0-2-1); I, III. Emphasis on skill, knowledge, and tactics in all types of streams.

PHED 125. Basketball Skills. (0-2-1); I, II. Skills of basketball.

PHED 127. Racquetball. (0-2-1); I, II. Emphasis on skill, knowledge, and strategy.

PHED 130. Beginning Swimming. (0-2-1); I, II, III. Learning to swim well enough to care for one's self under ordinary conditions.

PHED 131. Intermediate Swimming. (0-2-1); I, II, III. Perfection of standard strokes, diving.

PHED 132. Life Saving. (0-2-1); I, II, III. Rescue methods in all types of water.

PHED 133. Instruction to Water Safety. (0-2-1); I, II. Prerequisite: current Senior Lifesaving Certificate. Teaching methods and techniques in lifesaving.

PHED 135. Field Hockey. (0-2-1); II. Skills and techniques in field hockey.

PHED 138. Fencing. (0-2-1); I, II. Emphasis on skill, knowledge, and strategy.

PHED 150. Introduction to Physical Education. (2-0-2); I, II, III. Principles and basic philosophy, aims, and objectives; standards; and significance in profession of physical education.

PHED 204. Officiating. (2-0-2); I, II. Interpretation of rules for major sports. Methods and techniques of officiating; laboratory experience in officiating.

PHED 205. Lifetime Fitness (A Scientific Approach). (2-2-3); I, II. Prerequisite: complete physical examination within last year. Designed to provide the student with scientifically-based knowledge concerning practical application of physical fitness training and evaluation procedures while participating in a fitness program.

PHED 206. Rhythmical Activities in the Elementary School. (1-1-2); I, II. Body mechanics and posture taught to rhythmical patterns.

PHED 207. Training Room Modalities. (1-1-2); I, II. Prerequisites: PHED 203, 302. Emphasis on participation and use of machinery.

PHED 208. Medical Aspects of Athletic Training. (1-1-2); I, II. Prerequisite: PHED 302. Relationships existing between training programs and medical society, including case history studies.

PHED 209. Training Room Practice. (1-1-2); I, II. Prerequisite: PHED 302. Work-participation situation involving student in training room work.

PHED 210. Diagnostic Techniques of Athletic Injuries. (1-1-2); I, II. Prerequisite: PHED 302. Diagnosis of athletic injuries.

PHED 222. Individual Sports I. (1-1-2); I, II. Emphasis on development of performance skills, teaching techniques, and officiating in tennis, badminton, and racquetball.

PHED 223. Individual Sports II. (1-1-2); I, II. Emphasis on development of performance skills and teaching techniques in cycling-exercise program, archery, and golf.

PHED 300. Physical Education in the Elementary School. (2-0-2); I, II, III. Prerequisite: admission to the teacher education program. Selection and organization of materials and techniques of instruction for elementary school program. (Laboratory experiences are integral part of course.)

PHED 301. Evaluation in Health, Physical Education, and Recreation. (3-0-3); I, II, III. Methods, techniques, and procedures used in evaluation of students in health, physical education, and recreation.

PHED 302. Athletic Injuries. (2-0-2); III. Theory and practice of massage, bandaging, taping, and caring for athletic injuries.

PHED 303. Physical Education in the Secondary School. (2-0-2); I, II, III. Prerequisite: admission to teacher education program. Selection and organization of materials and techniques of instruction for secondary school program.

PHED 304-305. Affiliation in Physical Education. (0-2-1); I, II. Students will observe and assist a staff member in one or more of the service classes.

PHED 308. Baseball Techniques. (2-0-2); I, II. Theoretical and practical aspects of baseball theory.

PHED 309. Team Sports I. (1-1-2); I, II. Emphasis on development of performance skills, teaching techniques, and officiating in volleyball and soccer.

PHED 311. Movement Exploration. (2-1-3); I, II. Child-centered program and demonstrate methods whereby a child may learn to move experimentally, expressively, and efficiently.

PHED 312. Individual and Team Games for Elementary School. (2-3-4); I, II. Emphasis on development of individual skills in team game atmosphere.

PHED 319. Team Sports II. (2-0-2); I, II. Emphasis on development of performance skills, teaching techniques, and officiating in basketball and softball.

PHED 401. Organization and Administration of Physical Education. (3-0-3); I, II, III. Arrangement of units making up physical education program, and process of leadership by which serious aspects are brought together in a functioning whole.

PHED 402. Kinesiology. (3-0-3); I, II, III. Study of human action.

PHED 409. Team Sports III. (2-0-2); I, II. Emphasis on development of performance skill and teaching techniques in football.

PHED 419. Team Sports IV. (2-0-2); I, II. Emphasis on the development of performance skills and teaching techniques in cross country, track and field, and field hockey.

PHED 420. Administration of School Athletic Programs. (3-0-3); I, II. Administrative principles and procedures applicable to school athletic program.

PHED 422. Coaching Inter-Scholastic Athletics. (3-0-3); I, II. Emphasis on coaching techniques of inter-scholastics.

PHED 432. Physiology of Exercise. (3-0-3); I, II, III. Prerequisite: PHED 402. Study of response of the body to muscular activity; work and efficiency, cardiorespiratory adjustment, training, and fitness. (Laboratory experiences are integral part of course.)

PHED 475. Adapted Physical Education. (2-0-2); I, II. Problems of exceptional students and means whereby these students can be aided through physical education.

PHED 576. Special Problems in Physical Education. (1 to 3 hrs.); I, II. Prerequisite: upper division or graduate classification. Course to meet the special needs of individual students.

PHED 599. Workshop. (1 to 3 hrs.); I, II, III. Workshop for specifically designated task orientation in physical education. May be repeated in additional subject areas. Maximum of six semester hours may be earned under this course number.

PHYSICS

PHYS 199. Selected Topics. (1 to 6 hrs.); on demand.

PHYS 201. Elementary Physics I. (3-0-3); I, II, III. Prerequisite: working knowledge of algebra and trigonometry. Mechanics and heat; Newton's law of motion, energy and momentum, and heat transfer.

PHYS 201A. Elementary Physics I Laboratory. (0-2-1); I, II, III. Must take concurrently with PHYS 201. Laboratory for PHYS 201.

PHYS 202. Elementary Physics II. (3-0-3); I, II, III. Prerequisite: PHYS 201. Electricity and magnetism, light, nuclear and atomic physics.

PHYS 202A. Elementary Physics II Laboratory. (0-2-1); I, II, III. Must take concurrently with PHYS 202. Laboratory for PHYS 202.

PHYS 211. Circuits. (3-2-4); II. Prerequisite: MATH 275; corequisite: PHYS 232. Linear circuits consisting of passive and active circuit elements; sinusoidal-forcing functions and phasors; steady-state response.

PHYS 212. General Physics Problems. (2-0-2); I. Prerequisite: PHYS 202. Corequisite: MATH 275. Selected problems from engineering physics. Application of elementary calculus to the solution of general physics problems. (This course is designed exclusively for students who have completed PHYS 201 and 202 and are interested in taking additional upper-division physics courses. For courses for which PHYS 231 and 232 are the recommended prerequisites, the sequence PHYS 201, 202, and 212 is acceptable in lieu of PHYS 231 and 232 except for students in the pre-engineering program.)

PHYS 221. Statics. (3-0-3); II. Corequisite: MATH 276. Vector algebra, moments of force, equivalent force systems, equilibrium, trusses, frames, friction, centroids, and center of mass.

PHYS 231. Engineering Physics I. (4-0-4); I. Corequisite: MATH 275. Introduction to physics for scientists and engineers. Statics, kinetics, and dynamics of linear and rotational motion, gravitational fields; thermal properties of matter and heat transfer.

PHYS 231A. Engineering Physics I Laboratory. (0-2-1); I. Must be taken concurrently with PHYS 231. Laboratory for PHYS 231.

PHYS 232. Engineering Physics II. (4-0-4); II. Prerequisite: PHYS 231. Electromagnetism, optics, atomic and nuclear physics.

PHYS 232A. Engineering Physics II Laboratory. (0-2-1); II. Must be taken concurrently with PHYS 232. Laboratory for PHYS 232.

PHYS 250. Light, Color, Cameras, and Perception. (3-0-3); I, II. A non-mathematical study of the phenomena of light and perception. Applications of light and color are presented in art, psychology, photography, and other areas.

PHYS 299. Selected Topics. (1 to 6 hrs.); on demand.

PHYS 320. The Science of Music. (3-0-3); I, II. Properties of sound, the hearing process, musical scales, production of music by wind and stringed instruments, electronic recording and reproduction, and architectural acoustics.

PHYS 332. Electricity and Magnetism. (4-0-4); II in alternate years. Prerequisite: PHYS 232. Classical electricity and magnetism, Maxwell's equations, Lorentz force equation; electrodynamics, electrostatics, and magnetostatics; circuit theory, electromagnetic waves, and radiating systems.

PHYS 340. Experimental Physics. (1-4-3); I. Prerequisite: PHYS 232. Selected experiments from classical and modern physics. Computer analysis and simulation.

PHYS 350. Nuclear Science. (3-2-4); II. Prerequisite: PHYS 202 or 232. Interdisciplinary course in nuclear science for students in pre-medicine, environmental studies, physics, chemistry, geology, pre-dentistry, and pre-veterinary medicine.

PHYS 352. Concepts of Modern Physics. (3-0-3); I. Prerequisite: PHYS 232. Special relativity, quantum mechanics, atomic and molecular structure, solid state and nuclear physics.

PHYS 361. Fundamentals of Electronics. (2-2-3); I. Prerequisite: PHYS 202-202A or 232-232A. A survey of electronics: components, basic circuits such as amplifiers and oscillators, feedback, op-amps, digital circuits, and interfacing.

PHYS 381. Computer Solutions to Engineering and Science Problems. (3-0-3); II. Prerequisites: PHYS 232 and DATA 260. Applications of computer programming to problems in engineering and physics. Problems will be selected from statics, dynamics, mechanics of materials, thermodynamics, and electricity and magnetism, with an extended problem selected from the student's major area of interest.

PHYS 391. Dynamics. (3-0-3); I. Prerequisite: Physics 221 or 231. A study of motion of bodies. Kinematics and dynamics of particles and rigid bodies; work and energy; impulse and momentum.

PHYS 399. Selected Topics. (1 to 6 hrs.); on demand.

PHYS 410. Solid State Physics. (3-0-3); on demand. Prerequisite: PHYS 352. Lattice dynamics, electrons in metals, semi-conductors, and dielectric and magnetic properties of solids.

PHYS 411. Thermodynamics. (3-0-3); II. Prerequisite: PHYS 231. First and second laws of thermodynamics, power and refrigeration cycles, statistical thermodynamics, relations among properties, and equations of state.

PHYS 412. Light and Physical Optics. (3-0-3); on demand. Prerequisite: PHYS 232. Dualistic nature of light; interference, refraction, reflection, diffraction, polarization, laser action, and spectra.

PHYS 452. Nuclear Physics. (3-0-3); on demand. Prerequisite: PHYS 232. Binding energies, nuclear forces, transmutation of nuclei; natural and artificial radioactivity.

PHYS 481. Mathematics for Engineers and Scientists. (3-0-3); I. Prerequisite: MATH 276. Fourier series, ordinary and partial differential equations, special functions, and integral transforms. See MATH 481.

PHYS 493. Quantum Mechanics. (3-0-3); on demand. Prerequisite: PHYS 391 or consent of instructor. The wave function; Hermitian operators and angular momentum; Schrodinger's equation, barriers, wells, harmonic oscillators, and the hydrogen atom.

PHYS 499. Selected Topics. (1 to 6 hrs.); on demand.

PSYCHOLOGY

PSY 154. Introduction to Psychology. (3-0-3); I, II, III. Course concerning application of psychological theories and principles in area of personality, abnormal psychology, clinical psychology, psychodiagnostics, developmental psychology, psychotherapy and counseling; includes some understanding of methods used in personality and clinical research.

PSY 156. Life-span Developmental Psychology. (3-0-3); I, II. Prerequisite: PSY 154 or consent of instructor. Covers developmental theories, principles, and characteristics of individuals across three major developmental periods: infancy and childhood, adolescence, and adulthood.

PSY 157. Psychology of Adjustment. (3-0-3); I. Prerequisite: PSY 154 or consent of instructor. Overview of processes and adaptation and personal adjustment in family, group, and work settings. Personality theories of Erikson, White, and others applied to process of developing for the individual a sense of competence and means of resolution of crises during life cycle.

PSY 199. Workshop (1 to 3 hrs.); I, II, III. Workshop for specifically designated task orientation in psychology. May be repeated in additional subject areas. Maximum of 6 sem. hrs. may be earned under this course number.

PSY 276. Independent Study (1 to 3 hrs.); I, II, III. Professional problem in psychology.

PSY 353. Industrial Psychology. (3-0-3); II. Prerequisite: PSY 154. Applied experimental and engineering psychology. Surveys of basic engineering data with emphasis on experimental procedure, receptive and motor capacities, and their application to equipment design and other problems.

PSY 354. Introduction to Social Psychology. (3-0-3); I. Prerequisite: PSY 154. Scientific study of individual's relationship with social environment. Emphasis on attitudes, personality, prejudice, discrimination, dominance, role theory, social learning, social and interpersonal perception, and social movement.

PSY 381. Experimental Psychology I. (2-2-3); I. Prerequisites: PSY 154 and EDSP 581 or MATH 353. Study of experimental methods and design related to sensation, perception, discrimination, learning, forgetting, and retention. (Laboratory experiences are integral part of course.)

PSY 390. Psychology of Personality. (3-0-3); I, II. Prerequisite: PSY 154. Introduction to major approaches, methods, and findings in field of personality, including overview of basic theories, strategies, issues, and conclusions; attention to assessment and personality change.

PSY 399. Workshop. (1 to 3 hrs.); I, II, III. Workshop for specifically designated task orientation in psychology. May be repeated in additional subject areas. Maximum of six semester hours may be earned under this course number.

PSY 422. Comparative Psychology. (3-0-3); II. Prerequisite: PSY 154. Theory and application of field and laboratory techniques used in understanding behavior of animals. Areas include: instinct, learning, motivation, sensory discrimination, heredity, and perception.

PSY 470. Research Problems. (1 to 3 hrs.); I, II, III. Independent research study of professional problem. Conferences with instructor by arrangement.

PSY 521. Physiological Psychology. (3-0-3); II. Prerequisite: PSY 154. Physiological mechanisms of normal human and animal behavior. Anatomy and physiology relevant to study of sensory and motor functions, emotion, motivation, and learning.

PSY 554. Seminar in Social Psychology. (3-0-3); II. Prerequisite: PSY 154 or consent of instructor. Intensive examination of research methods and theory in modern social psychology.

PSY 555. Environmental Psychology. (3-0-3); II. Prerequisite: PSY 154. Study of ways in which social and physical environments affect human behavior. Direct effects of physical settings on behaviors, individual utilization of various physical settings, analysis of personal space utilization, and other non-verbal behaviors examined.

PSY 556. Introduction to Clinical Psychology. (3-0-3); I. Prerequisite: PSY 154. Survey of basic theoretical issues and research in areas of assessments and psychotherapy. Consideration of ethical, legal, and other professional problems in clinical psychology. Emphasis on clinical aspects of school psychologist's functions in working with school age children.

PSY 558. Psychological Testing. (3-0-3); II. Prerequisite: PSY 154. General introduction to psychological testing. Topics include interest inventories, measurement and evaluation of personality, measurement of proficiency, performance, attitudes, temperament, aptitude, capacity, and intelligence through use of group assessment instruments used in psychological research, guidance, education, social research, business, and industry.

PSY 559. Behavior Modification. (2-2-3); II, III. Prerequisite: PSY 154. Operant learning principles that govern human behavior applied to modification of behavior in school setting. Course is designed to give experience in dealing with behavioral problems in classroom and other settings. (Laboratory experiences are integral part of course.)

PSY 575. Selected Topics. (2-2-3 to 6 hours); I, II, III. Prerequisite: consent of instructor. Various methods courses in instrumentation and data reduction, innovation and research design, directed study of special problems in psychology, various application courses and others.

PSY 576. Seminar in Developmental Research. (3-0-3); II. Prerequisite: PSY 156 or permission of instructor. Intensive examination of research and contemporary developmental psychology. Emphasis on reading and evaluating current journal articles and designing research projects.

PSY 582. Experimental Psychology II. (2-2-3); II. Prerequisite: PSY 381 or consent of instructor. A seminar course in experimental psychology emphasizing content areas of learning, motivation, perception, and physiological psychology. Course is designed to give student practice in critical thinking, evaluation of experimental design, and original research, and affords student an opportunity to present and debate his or her own ideas. (Laboratory experiences are an integral part of course.)

PSY 583. Sensory Psychology. (3-0-3); I. Prerequisites: PSY 154 and EDSP 581 or MATH 353. Biological and physical bases of sensory experience. Presentation of psychophysical data and basic techniques for scaling of sensation. Coverage of all sensory systems with primary emphasis on vision and audition.

PSY 584. Perception. (2-2-3); III. Prerequisites: PSY 154. Examination of role of perception as an information extraction process. Includes constancies, space perception, illusions, and influence of learning and experience on development of perception. (Laboratory experiences are integral part of course.)

PSY 585. Systems and Theories. (3-0-3); I. Prerequisites: PSY 154 and EDSP 581 or MATH 353. Intensive study of most influential historical systems of psychology including structuralism, functionalism, associationism, behaviorism, Gestalt psychology, and psychoanalysis, and a treatment of contemporary developments.

PSY 586. Motivation. (2-2-3); II. Prerequisite: PSY 154. Consideration of bases of human and animal motivation in relation to other psychological processes. (Laboratory experiences are integral part of course.)

PSY 589. Psychology of Learning. (3-0-3); I, III. Prerequisite: PSY 154. Fundamental principles of learning, including acquisition, retention, forgetting, problem solving, and symbol formation; experimental studies; application of principles to practical problems in habit formation, development skills, remembering, and logical thinking.

PSY 590. Abnormal Psychology. (3-0-3); I, II, III. Prerequisite: PSY 154. Psychology, behavior, and treatment of individuals having superior or inferior mental abilities, perceptual handicaps, orthopedic problems, and behavioral disorders; general methods used in therapy, and research in this area.

PSY 591. Application on SPSS to the Life Sciences. (1-1-1); I. Prerequisite: MATH 353 or EDSP 581 or consent of instructor. Application of descriptive and inferential statistics by SPSS computer package for data analyses in life sciences.

PSY 592. Application of BMD to the Life Sciences. (1-1-1); I. Prerequisite: MATH 353 or EDSP 581 or consent of instructor. Application of descriptive and inferential statistics by BMD computer package for data analyses in life sciences.

PSY 593. Application of SAS to the Life Sciences. (1-1-1); I. Prerequisite: MATH 353 or EDSP 581 or consent of instructor. Application of descriptive and inferential statistics by SAS computer package for data analyses in life sciences.

PSY 599. Workshop. (1 to 3 hrs.); I, II, III. Workshop for specifically designated task orientation in psychology. May be repeated in additional subject areas. Maximum of six semester hours may be taken.

RADIO-TELEVISION

R-TV 110. Introduction to Mass Communications. (3-0-3); I. (See Journalism 101.)

R-TV 150. Introduction to Broadcasting. (3-0-3); I, II. Basic conditions of the broadcasting industry from regulation to advertising. Students will also learn the basics of everyday station operations.

R-TV 151. Introduction to Broadcast Techniques. (2-0-2); I, II. Familiarization with radio, television, and film equipment utilized in studio and remote broadcast productions.

R-TV 155. Broadcast Performance. (3-0-3); I, II. Fundamentals of broadcast announcing, emphasis on vocal communication skills of enunciation, pronunciation, inflection, and pacing.

R-TV 240. Writing for Broadcast. (3-0-3); I, II. Techniques used in writing commercials and programs for radio and television. Emphasis is placed on storyboards and advertising presentation.

R-TV 250. Audio Production and Direction. (3-2-4); I, II. Discussion of all areas of audio production, including radio, television, audio, and film audio with practical work in radio production.

R-TV 283. Photographic Design. (2-2-3); I, II. Experimental and standard photographic processes and techniques are approached with an aesthetic view of the medium.

R-TV 320. Broadcast Advertising/Sales. (3-0-3); I. Provides a foundation in both practical and theoretical aspects of broadcast advertising. Principles of sales will be examined from the perspective of the advertising copywriter.

R-TV 338. Radio Operating Practices. (1-0-1); I, II. (See IET 338). Basic Law, technical operating practices, meter reading, and electronic fundamentals necessary in the operation of a broadcast facility.

R-TV 340. Video Production and Direction I. (2-2-3); I, II. Prerequisite: R-TV 151 and 240 or permission of instructor. Basic television production techniques and introduction of directing skills in a laboratory situation.

R-TV 344. Broadcast News and Public Affairs. (3-0-3); I, II. Prerequisite: 9 hours of undergraduate radio-TV or consent of the instructor. Theory and practice of news and public affairs writing and reporting as it applies to the broadcast media.

R-TV 357. Sportscasting. (2-2-3); I. Philosophy and techniques utilized in developing style of presentation in sports broadcasts. Theory practically applied in play-by-play description, interviewing, and presentation of copy. (Cross referenced as JOUR 357.)

R-TV 358. Sports Writing. (3-0-3); II. Philosophy and techniques in writing sports news and sports analysis or commentary for mass media. Same as JOUR 358.

R-TV 379. Field Study Experience. (3-0-3); III. (May be repeated for credit when topics vary.) Prerequisite: consent of instructor. Participants will travel to a major broadcasting center and tour commercial network, major independent, public cable, and satellite broadcast facilities. Will also include related media facilities, news services, public relations and advertising agencies, government facilities and agencies; discussions and informal seminars with practicing professionals and officials in their fields of expertise.

R-TV 383. Photographic Design II. (2-2-3); I, II. Prerequisite: R-TV 283. Advanced work in the use of photographic concepts and techniques.

R-TV 420. Feature and Documentary Writing for Broadcast. (3-0-3); I. Prerequisite: R-TV 240. Advanced theory and practices of writing for the broadcast medium. Emphasis placed on writing and producing features and documentaries for radio and television.

R-TV 423. Advanced Commercial and Continuity Writing. (3-0-3); II. Prerequisite: R-TV 240. Script writing techniques for the advanced broadcast copywriter. Practice in writing various types of commercials, continuities, and formats for radio and television.

R-TV 440. Video Production and Direction II. (3-3-4); I, II. Prerequisite: R-TV 340. Junior standing and consent of instructor. Extension of R-TV 340, with advanced instruction in studio operations. Emphasis upon the opportunity to produce and direct several program types and to serve on crews for such production.

R-TV 445. Electronic Field Production. (3-0-3); III. Prerequisite: R-TV 340 and consent of instructor. Theory and practice in the production of commercial and feature production outside the studio using a single-camera technique, including post-production electronic editing and production techniques.

R-TV 450. Broadcast Management. (3-0-3); II. Prerequisite: 18 hours of undergraduate radio-television or consent of instructor. Examination of administrative decision-making in radio and television with attention to programming, research, audience, sales, regulatory, and personnel concerns. Special attention is given to the purpose and basic idea of programs in relation to audience composition.

R-TV 451. Professional Audio Practices. (2-2-3); II. Prerequisite: R-TV 250—Audio Production and Direction I and consent of instructor. Experience and advanced study in areas such as music recording and sound, its relation to television, film, multi-media, and radio production.

R-TV 459. Broadcast Law and Regulation. (3-0-3); I. Basic regulatory law and policy examined in terms of application to daily station operation and from historical and socio-economic perspectives.

R-TV 550. Problems in Contemporary Broadcasting. (3-0-3); I. Prerequisite: junior standing and consent of instructor. Treatment of current problems within the broadcasting industry.

R-TV 558. Public Broadcasting. (3-0-3); I. Prerequisite: junior standing and consent of the instructor. Study of the development of public broadcasting from both theoretical and operational standpoints.

R-TV 560. History of Broadcasting. (3-0-3); I. Prerequisite: junior standing and consent of instructor. Historical study of radio-television as a communication service and its development in America.

R-TV 562. Broadcast Criticism. (3-0-3); II, IV. Prerequisite: junior standing and consent of instructor. Examination of broadcasting in sociological, aesthetic, historical, psychological, and humanistic terms.

R-TV 580. New Technology Policy and the Communications Industry. (3-0-3); II. Prerequisite: junior standing and consent of instructor. Examines both broadcast media, cable, common carriers, the sources of policy and influence which guide them, and public interest issues affected by communications media policy.

R-TV 582. American Popular Culture and Communications Technology. (3-0-3); II. Prerequisite: junior standing and consent of instructor. Examination of the role and effects of major advances of communications technology on the course of American popular culture and society in the past, present, and future.

R-TV 583. Photographic Design III. (2-2-3); I, II. Prerequisite: R-TV 383. Individual problems in photographic design.

RADIOLOGIC TECHNOLOGY

RAD 110. Radiographic Anatomy and Positioning I. (3-2-4); I. Corequisites: BIO 331, AHS 302. Introduction to radiographic positioning, including basic terminology relating to the structure of the human body and discussion of the physiological systems, with a thorough explanation of positioning nomenclature. Emphasis will be given to chest and abdominal radiography which will include the routine examinations demonstrating the various visceral structures of the gastro-intestinal tract, including radiological examinations of the gallbladder, bile ducts, and the urinary system. This course will prepare the students to assist or perform fluoroscopic studies, and will also cover routine positioning for the upper extremity, shoulder girdle, sternum, ribs, and clavicle.

RAD 120. Radiologic Technology I. (3-2-4); I. Corequisites: RAD 110. An introduction to radiologic technology, including the history of the field. Professional and medical ethics and the legal implications. Nursing procedures that are pertinent to radiology. An introduction to the production and control of ionizing radiation used in medical diagnosis with the main emphasis placed upon the x-ray tube and protection. An introduction to technical factors affecting radiographic quality. Other topics include the radiograph and image formation, as well as film processing and darkroom chemistry.

RAD 130. Clinical Internship I. (0-40-10); II. Prerequisites: RAD 110, 120. Clinical experience in an affiliated hospital's radiology department is specifically designed to introduce the student to areas of professional practice in radiologic technology. Departmental orientational emphasis will be placed on patient management, patient care, and transporting responsibilities, radiological equipment knowledge, office procedures, and darkroom processing procedures. Technological emphasis will require the student to successfully achieve at least 25 clinical competencies in areas which include chest, abdominal, and gastro-intestinal radiography, as well as radiological examinations of the upper extremity, thorax, and shoulder girdle. Students will be assigned to rotate through specialty areas of radiology as available to them.

RAD 131. Special Problems—Nursing Procedures (Directed Study). (2-0-2); II. Prerequisites: RAD 110, 120. Nursing procedures and techniques used in the general care of the patient while in the radiology department, emphasizing the role of the radiologic technologist in performing such tasks as setting up sterile trays, preparing and transporting a patient in isolation, performing one-person or two-person C.P.R., etc. Students will be evaluated on how well they carry out the skills.

RAD 210. Radiographic Anatomy and Positioning II. (2-2-3); III. Prerequisites: RAD 110. This course is designed to be a continuance of RAD 110 which will emphasize the radiographic anatomy and positioning of the lower extremity, hips, pelvis, sacroiliac joints, and the entire vertebral column. Related radiographic anatomy will be demonstrated for each area reviewed.

RAD 220. Radiographic Anatomy and Positioning III. (2-2-3); III. Prerequisites: RAD 110, RAD 120. Corequisite: BIO 332. A continuance in the study of radiographic anatomy and positioning, with primary emphasis in skull radiography. Also included is an in-depth study of the radiographic procedures for examination of the facial bones, nasal bones, mandible, orbits and optical foramina, paranasal sinuses, mastoids, eye localizations, and sialography. Skull radiography of the trauma patient shall be incorporated within the subject material.

RAD 230. Clinical Internship II. (0-40-10); I. Prerequisites: RAD 130, 210, 220. Clinical assignment in an affiliated hospital's radiology department will provide the student with further application experience in professional knowledge. Students will be expected to continue to exhibit competencies previously acquired, and must successfully achieve 25 additional competencies in other radiographic procedures. Demonstrated competency emphasis will be placed in areas of the lower extremity, pelvic girdle, and the entire

vertebral column. Students who have not had prior opportunity will be assigned to rotate through specialty areas available to them.

RAD 231. Special Problems—Radiographic Quality (Directed Study). (2-0-2); **I. Prerequisite:** RAD 120. This course takes the theory that has been examined in previous courses and shows why and how radiographic quality is important to the radiology department. Radiographic quality experiments will be done in the clinical affiliate to provide the student with the education in analyzing the radiographs by independently examining each of the multiple factors that contribute to the appearance of the image. Emphasis is placed on quality assurance used in the radiology department.

RAD 240. Radiologic Technology II. (2-2-3); **II. Prerequisites:** RAD 120, 231. A course designed to advance the study of radiographic processing, x-ray production, and image formation. Medical ethics will be explored further with specific case studies in radiologic technology. Different types of image modalities will be examined as well as quality assurance, protection, radiographic exposure, equipment maintenance, and proper usage.

RAD 250. Radiation Physics and Electronics. (2-2-3); **II. Prerequisite:** RAD 120. A study of radiation physics and electronics necessary to understand the circuitry of an x-ray machine and how x-rays are generated and produced. Topics will include the structure of matter, electrostatics, magnetism, electrodynamics, electromagnetism, rectification, and the x-ray tube.

RAD 260. Advanced Radiographic Procedures. (3-0-3); **II. Prerequisites:** RAD 110, 210, 220. An introduction into the areas of specialized radiological procedures such as cerebral angiography, with discussion of the "Seldinger Technique," catheters and guidewire, and special procedure trays and equipment. Myelography, lymphangiography, hysterosalpingography, with discussion of contrast media utilized for "special procedures." CAT scanning with some cross-sectional anatomy, discussion of the newer imaging modalities, including nuclear magnetic resonance, digital radiography, and advancements in nuclear medicine, xeroradiography and endoscopic procedures assisted by technologists, and ultrasonography.

RAD 320. Radiation Biology and Pathology. (3-0-3); **II. Prerequisite:** RAD 120. This course will integrate film evaluation with radiologic pathology. An overall picture of how pathological conditions can be determined by a good quality radiography. Classifications of diseases by etiology and by organ systems will be examined as well as methods of diagnosis of disease. Radiation biology will also be studied as it affects the public right to minimal radiation exposure. An overall view of the effects of ionizing radiation to all the biological systems.

RAD 330. Clinical Internship III. (0-40-4); **III. Prerequisites:** RAD 130, 230. Clinical education experience in an affiliated hospital's radiology department has been individually assigned to encourage the students in assuming their roles as new entry-level technologists. Educational advancement in special procedures, mammography, arthrography, pacemaker insertions, and tomography is emphasized. Students are expected to continue demonstration of previously earned procedural competencies, and must successfully acquire competency level in 13 additional radiographic procedures. Students who have not had prior opportunity will rotate through specialty areas available to them.

RAD 340. Clinical Internship IV. (0-40-4); **III. Prerequisites:** RAD 130, 230. Clinical education experience in an affiliated hospital's radiology department has been assigned by the faculty of the Radiologic Technology Program to provide the student with a deeper knowledge of radiography. The student must continue to exhibit procedural competencies learned previously and must successfully achieve competency in 12 more radiological examinations. Special emphasis will be placed on advanced cranial procedures and trauma radiography. Students who have not had prior opportunity will rotate through specialized areas within the field such as special procedures, radiation therapy, ultrasonography, nuclear medicine, mammography, xerography, and CAT scanning.

REAL ESTATE

REAL 105. Principles of Real Estate. (3-0-3); **I, II.** A general introduction to real estate as a business and profession. Acquaints the student with a wide range of subjects necessary to the practice of real estate, include license law, ethics, listing and purchase agreements, brokerage, deeds, financing, appraisal, mortgages, and property management.

REAL 139. Cooperative Study I. (1 to 8 hrs.); **on demand.** Work experience in a field relevant to the student's career objectives and academic preparation. Experience is usually analogous to a freshman level course.

REAL 199. Selected Workshop Topics. (1 to 4 hrs.); **on demand.** Workshops on various real estate subjects will be presented periodically to supplement the basic course offerings in real estate. Credit toward degree programs must be approved by the student's advisor.

REAL 239. Cooperative Study II. (1 to 8 hrs.); **on demand.** Work experience with an extension of exposure gained in REAL 139 or of a nature similar to a sophomore status course.

REAL 303. Real Estate Market Analysis. (3-0-3); **I. Prerequisite:** REAL 120 or consent of instructor. Designed to develop skills in analysis of real estate markets and to implement the results of this analysis in real estate sales and marketing management. Students should become proficient in the use of quantitative tools and interpretation of data output in real estate fields.

REAL 309. Real Estate Land Planning and Development. (3-0-3); **on demand.** **Prerequisite:** REAL 105 or permission of instructor. A comprehensive course on the specialized field of land planning and development, emphasizing the field of home construction. Neighborhood analysis, house design, mechanical systems, and blueprint reading are stressed. Provides important background for developers, appraisers, brokers, and property managers.

REAL 310. Real Estate Law. (3-0-3); **II. Prerequisite:** REAL 105 or permission of instructor. Overview of real estate law, focusing on legal fundamentals including contracts, concepts of title, title examination.

REAL 320. Real Estate Marketing. (3-0-3); **I. Prerequisite:** REAL 105 or permission of instructor. Designed to help real estate professionals with listing, prospecting, showing, negotiating, and closing. Furthermore, qualifying them, organizing, and promotional package design will be discussed. Marketing skill development is emphasized.

REAL 325. Appraisal of Residential Property. (3-0-3); **I. Prerequisite:** REAL 105 or permission of instructor. An introduction to the current theory and practice of real estate appraisal as taught by the professional appraisal societies. Insight into the direction of appraisal and feasibility in the future.

REAL 330. Real Estate Property Management. (3-0-3); **II. Prerequisite:** REAL 105 or consent of instructor. Introduction to basic organization, administrative operation, and management of residential and commercial projects of various sizes. The financial considerations, staffing, training, and evaluation of personnel, sales methods, and promotional techniques in property management.

REAL 331. Real Estate Finance. (3-0-3); **I. Prerequisite:** REAL 105 or permission of instructor. Introduction to the mechanisms of real estate finance, sources of funds, principles of mortgage risk analysis, governmental agency roles, and cash flows.

REAL 335. Real Estate Investment. (3-0-3); **II. Prerequisite:** REAL 105 or consent of instructor. Theory and practices of real estate investments and the wide range of topics in this area. Reasons for and against investing, homes and business properties, sale and lease-backs, and the real estate investor.

REAL 339. Cooperative Study III. (1 to 8 hrs.); **on demand.** Work experience with an in-depth exposure representative of the student's academic level and experience analogous to a junior level status.

REAL 345. Appraisal of Income Property. (3-0-3); **II. Prerequisite:** REAL 125. Introduction to current theory and practice of income property appraisal and appraisal techniques.

REAL 399. Selected Workshop Topics. (1 to 4 hrs.); **on demand.** Workshops on various real estate will be presented periodically to supplement the basic course offerings in real estate. Credit toward degree programs must be approved by the student's advisor.

REAL 400. Real Estate Brokerage. (3-0-3); **on demand.** **Prerequisite:** REAL 105 or consent of instructor. An examination of the establishment and operation of a real estate broker's office; concentrating on the unique problems of staff recruitment and training, sales activities, marketing practices and policies, budget establishment, analysis and control, data handling, personnel policy, and professional ethics in such an agency.

REAL 410. Urban Land Use Analysis. (3-0-3); **on demand.** **Prerequisite:** REAL 105 and 125 or consent of instructor. Introduction to the responsibility of planning agencies to bring plans into closer harmony with the basic currents of economic development in the relationship between urban form and human behavior and activity patterns. Theory development, the use of models in planning, transportation systems, and other urban activities.

REAL 439. Cooperative Study IV. (1 to 8 hrs.); **on demand.** Work experience with an in-depth exposure representative of the student's academic level and experience analogous to a senior level course.

REAL 476. Special Problems in Real Estate. (1 to 3 hrs.); **I, II, III. Prerequisites:** senior standing and prior consent of head of department. Self-directed independent study on a specific problem, based on written proposal and justification submitted by student prior to registration. Each request will be considered on its own merit in relation to the special needs, interest, and abilities of the student.

REAL 539. Cooperative Study V. (1 to 8 hrs.); **on demand.** Work experience providing advanced specialized exposure in a career-related position. Available to upper division undergraduate and graduate students.

REAL 599. Selected Workshop Topics. (1 to 4 hrs.); **on demand.** Workshops on various real estate subjects will be presented periodically to supplement the basic course offerings in real estate. Credit toward degree programs must be approved by the student's advisor.

RECLAMATION TECHNOLOGY

RCL 301. Reclamation Laws and Regulations. (3-0-3); **I.** A study of federal and state regulatory agencies and regulations affecting the reclamation of disturbed land.

RCL 302. Reclamation Management and Systems Planning I. (2-4-4); **II.** Studies of current surface mining procedures and reclamation methods. Laboratory and field studies devoted to surface mining permit application procedures and site evaluation.

RCL 303. Reclamation Management and Systems Planning II. (2-4-4); **on demand.** **Prerequisite:** approval of instructor. An emphasis on evolving concepts in surface mining. Laboratory and field studies devoted to advanced site evaluation, environment testing procedures, and land use planning.

RECREATION

REC 201. Outdoor Recreation. (3-0-3); II, III. Scope and history of outdoor recreation. Development of camp craft skills.

REC 209. Recreational Sports. (2-1-2); I, II, III. Prerequisite: Three of five activities. History, knowledge of rules, proficiency of skills, and teaching ability of bowling, archery, volleyball, soccer, and squash-handball. (Laboratory experiences are integral part of course.)

REC 285. Community Recreation. (2-0-2); I, II, III. Emphasizes general aspects of community recreation, place of school and other social institutions in recreation.

REC 286. Recreation Leadership. (2-0-2); I, II, III. History, theory, and philosophy of recreation. Practical techniques of leadership for low organization activities.

REC 288. Recreational Arts and Crafts. (1-2-2); I, II, III. Methods and materials, techniques of producing all types of crafts suitable for playground, community centers, hospital, school, camp, and club programs.

REC 290. Field Experience I. (1-1-1); I, II, III. Designed to give student practical experience under guidance of qualified leadership. (Laboratory experiences are integral part of course.)

REC 305. Social Recreation. (2-0-2); II. Practical application of planning, demonstrating, and conducting activities and programs for various social events and gatherings.

REC 310. Youth Organizations. (2-0-2); II. History, principles, and purposes of major youth service organizations with emphasis on leadership techniques and programming.

REC 375. Creative Dramatics. (3-0-3); II, III. Analysis and application of principles of creative dramatics as applied to classroom teaching recreation activities. (Same as THEA 375.)

REC 388. Community Centers and Playgrounds. (3-0-3); I, III. Leadership techniques, programming, and operation related to planning and administration of community centers and playgrounds.

REC 471. Seminar. (1-0-1); I, II. Discussion and reporting of current issues and problems in recreation profession.

REC 475. Therapeutic Recreation. (3-0-3); II, III. Philosophy, objectives, and basic concepts of therapeutic recreation. Emphasis on rehabilitation needs within institutional and community settings.

REC 477. Recreation Internship. (4 to 8 hrs.); Planning, leadership, supervision, and program evaluation experience in community and recreation public agency program under qualified administrative leadership and University faculty supervision. (Laboratory experiences are integral part of course. Application made through Coordinator of Professional Laboratory Experiences.)

REC 490. Field Experience II. (1-1-1); I, II, III. Designed to give student practical experience under guidance of qualified leadership. (Laboratory experiences are integral part of course.) (Application made through Coordinator of Professional Laboratory Experiences.)

REC 522. Park Management and Resource and Operation. (3-0-3); I, II. Prerequisite: senior standing. Theory and current practices involved in effective management and operation of parks and recreation areas, with emphasis on management policies and procedures for efficient operation. Practical work with local, state, and federal park systems and personnel to apply theoretical knowledge in a practical situation.

REC 526. Fiscal Management in Parks and Recreation. (3-0-3); I, II. Prerequisite: senior standing. Things peculiar to recreation and park administration such as tax structures, budgets, budget preparation procedure, projecting financial aspects of recreation, and things necessary to handle properly the financial affairs in recreation and park field.

REC 528. Camping Administration. (2-0-2); I, II. Prerequisite: senior standing. Successful administration and organization of the camp.

REC 576. Special Problems in Recreation. (1 to 3 hrs.); I, II. Prerequisite: upper division or graduate classification. Designed to meet special needs of individual students. Intensive study of approved specific problems from area of recreation under direction of instructor.

REC 580. Outdoor Interpretation. (2-2-3); II, III. Procedures for conducting and supervising naturalist and outdoor interpretive programs.

REC 585. Programs and Materials for Therapeutic Recreation. (0-2-3); I, II. Prerequisite: senior standing. In-depth study of programs and materials used in therapeutic recreation. Considers various devices, activities, and materials used in programs for individuals. Practical work with individuals in therapeutic situations is stressed.

REC 599. Workshop. (1 to 3 hrs.); I, II, III. Workshop for specifically designated task orientation in recreation. May be repeated in additional subject areas. Maximum of six semester hours may be earned under this course number.

RELIGION

NOTE: Credit in philosophy is not given for any of the courses in religion.

REL 221. World Religions I. (3-0-3); I. Prerequisite: PHIL 200—Introduction to Philosophy, is recommended. Origin, development, assumptions, values, beliefs, practices, great leaders, and principal events of Judaism, Christianity, Islam, and Zoroastrianism.

REL 222. World Religions II. (3-0-3); II. Prerequisite: PHIL 200—Introduction to Philosophy, is recommended. Origin, development, assumptions,

values, beliefs, practices, great leaders, and principal events of Hinduism, Buddhism, Confucianism, Taoism, Jainism, Sikhism, and Shintoism.

REL 321. Early and Medieval Christian Thought. (3-0-3); on demand. Prerequisite: PHIL 200—Introduction to Philosophy, is recommended. Ideas concerning the nature of God, Jesus, the church, man, sin, salvation, the good life, and other issues presented by Jesus, Paul, John, and the early and medieval church fathers or leaders to the beginning of the Reformation.

REL 322. Modern Christian Thought (1500 to 1900). (3-0-3); on demand. Prerequisites: REL 321 and/or PHIL 200 recommended. Ideas concerning the nature of God, Jesus, the church, man, sin, salvation, the good life, and other issues presented by theologians and religious leaders from the beginning of the Reformation to the twentieth century.

REL 323. Twentieth-Century Christian Thought. (3-0-3); on demand. Prerequisite: REL 322 or PHIL 200 or consent of instructor. Ideas concerning the nature of God, Jesus, the church, man, sin, salvation, the good life, and other ideas presented by major twentieth-century theologians such as Barth, Bultmann, Tillich, Niebuhr, Wieman, Hartshorne, A.T. Robertson, Karl Rahner, Karl Adam, Thomas Altizer, and Dietrich Bonhoeffer.

REL 476. Special Problems. (1 to 3 hrs.); on demand. Prerequisite: 12 hours in religious studies or consent of the Department of Philosophy. The student selects an approved topic in religion on which to do a directed study.

ROBOTICS

ROB 170. Fundamentals of Robotics. (3-0-3); II. An introduction to the operations and applications of robots. Android and industrial robots; emphasis on the history, development, sociological implications, and future trends. As survey class appropriate for any college major.

ROB 270. Robotics Systems Engineering. (2-2-3); I. Prerequisite: ROB 170. Systems engineering for variable sequence, playback, numerical control, and intelligent industrial robots. Economic justification, application, safety, maintenance, and programming. Laboratory activities will include problem-solving assignments with robots.

ROB 370. Robotics Interfacing Engineering. (2-2-3); II. Prerequisites: ROB 270 and EET 345. Electronic, digital, and mechanical interfacing of robots in industrial manufacturing cells. Topics will include open and closed loop feedback control systems, various sensing devices, tactile sensing, vision systems, and voice synthesis.

ROB 470. Robotics Applications Engineering. (0-6-3); I. Prerequisite: consent of instructor. Engineering design of a specific manufacturing problem and implementation in the laboratory. Emphasis on industrial engineering techniques, end-of-arm tooling, part orientation, and control devices for unmanned machine cells. An interdisciplinary approach will be used.

RUSSIAN

RUS 101. Beginning Russian I. (3-0-3). An introduction to Russian grammar beginning with the learning of the Cyrillic alphabet and progressing through a brief introduction of conjugation of verb forms and declension of adjectives and nouns.

RUS 102. Beginning Russian II. (3-0-3). Prerequisite: RUS 101 or one year of high school Russian. A continuation of RUS 101. An analysis of Russian grammar with emphasis on writing and speaking.

RUS 201. Intermediate Russian I. (3-0-3). Prerequisite: RUS 102. A continuation of Russian grammar with emphasis on vocabulary building and language structure. Russian lecture and elementary translation exercises are introduced in this course.

RUS 202. Intermediate Russian II. (3-0-3). Prerequisite: RUS 201. A continuation of RUS 201 with additional emphasis on Russian literature, translation, conversation, and writing.

RUS 301. Readings in Russian Literature. (3-0-3). Prerequisite: RUS 202. Directed study in Russian literature. The short story, poetry, prose, and essays. Review of Russian grammar as necessary. Oral practice.

RUS 302. Advanced Readings in Russian Literature. (3-0-3). Prerequisite: RUS 301. Readings in Russian from Lermontov, Turgenev, Tolstoy, Gogol, Dostoyevski, and others. Assigned readings on Russian culture and history. Review of Russian grammar as necessary.

SCIENCE

SCI 103. Introduction to Physical Sciences. (3-0-3); I, II, III. Measurements, energy, states of matter, nature and processes of physical sciences. An interdisciplinary approach to astronomy, chemistry, earth science, and physics.

SCI 107. Introduction to Geoscience. (3-0-3); I, II, III. A general survey of Earth; its astrophysical setting, its fluid portion, its solid part, its active processes, its history, the role of geology in preserving Earth's resources. See GEOS 107.

SCI 199. Selected Topics. (1 to 6 hrs.); on demand.

SCI 200. Descriptive Astronomy. (3-0-3); I, II, III. A non-mathematical presentation of methods and results of astronomical exploration of the solar system, our stellar system, and the galaxies.

SCI 299. Selected Topics. (1 to 6 hrs.); on demand.

SCI 360. Science of Aviation. (3-0-3); I, II, III. A study of airplane systems, meteorology, navigational procedures, the medical aspects pertinent to flying,

and the development of aviation. With the completion of the course, the student should be able to perform successfully on the FFA examination, one of the requirements for the private pilot's license.

SCI 389. **Honors Seminar in Sciences and Mathematics.** (3-0-3); I, II. A study of current environmental problems and issues, and possible solutions to these problems. In future semesters the topics and times may vary.

SCI 399. **Selected Topics.** (1 to 6 hrs.); on demand.

SCI 471. **Seminar.** (1-0-1); I, II. **Prerequisite:** senior standing. An introduction to research and literature in the sciences and mathematics.

SCI 476. **Special Problems.** (1 to 6 hrs.); I, II, III. **Prerequisite:** consent of instructor. Topic to be approved prior to registration. Credit available in the sciences and mathematics.

SCI 490. **Science for the Elementary Teacher.** (2-2-3); I, II, III. **Prerequisite:** completion of the minimum general education requirements in sciences and mathematics. A study of teaching scientific concepts to elementary children.

SCI 499. **Selected Topics.** (1 to 6 hrs.); on demand.

SCI 570. **Earth Science.** (3-0-3); I, II, III. **Prerequisite:** selected topics from the geological sciences. (Especially designed for in-service and pre-service teachers.)

SCI 580. **History of Science.** (3-0-3); I, II, III. An interdisciplinary approach to the development of the scientific traditions, discoveries, and concepts from the time of ancient Egypt to the present. See BIOL 580.

SCI 591. **Science for the Middle School Teacher.** (2-2-3); on demand. Pedagogy, science content, and techniques applicable to the teaching of science to middle school and junior high children.

SCI 592. **Science for the Secondary Teacher.** (2-2-3); on demand. **Prerequisite:** permission of instructor. Concepts of teaching high school science with emphasis on laboratory techniques, test preparation, questioning, presentation methods, and care of equipment.

SCI 599. **Selected Topics.** (1 to 6 hrs.); on demand.

SOCIAL WORK

SWK 210. **Orientation to Social Welfare.** (3-1-4); I, II. An introduction to the philosophy and early development of social welfare services, and exploration of the organization and function of social work practices in both the primary and secondary settings.

SWK 230. **Social Work Values and Social Policy.** (3-0-3); I, II. A study of values and policy formulation. Dominant values of the American society which influence social welfare policy will be compared with professional social work value commitment and social policy development and implementation.

SWK 310. **Field Experiences in Social Work.** (3-0-3); I, II. Observation and work experience in a social work agency under the supervision of a professional worker. Required for associate degree only.

SWK 315. **Child Welfare Services.** (3-0-3); I. Local, state, and national policies and programs designed to provide for the care, protection, and support of children.

SWK 322. **Human Behavior in the Social Environment.** (3-0-3); I, II. A study of the development of human behavior in the context of social systems. Special emphasis is placed on the development of physical and social functioning of the individual in the various stages of the life cycle.

SWK 325. **Social Work Practice I.** (3-0-3); I, II. The student will master at the beginning level the social work principles, practice methods, and processes essential to facilitating changes in various social systems.

SWK 330. **Applied Medical Sociology.** (3-0-3); II. (See SOC 330.)

SWK 425. **Social Work Practice II.** (3-0-3); I, II. This course is designed to enable the student to become a beginning practitioner who has integrated the knowledge and values of the profession as these apply to the interaction of persons and their social environment.

SWK 450. **Research Methodology.** (3-0-3); I, II, III. (See SOC 450.)

SWK 490. **Senior Seminar.** (1-0-1); I, II. A seminar providing an integrative capstone in preparation for entering the field of employment.

SWK 500. **Special Problems.** (1 to 3 hrs.); I, II, III. **Prerequisite:** Consent of instructor and social work coordinator. Arranged with department to study a particular topic in the social work field.

SWK 510. **Practicum in Social Work.** (4 to 8 hrs.); I, II. Actual work experience in the various agencies of social welfare under supervision of a trained and certified professional worker.

SWK 515. **Correctional Counseling.** (3-0-3); II. (See COR 515.)

SWK 520. **Social Work Administration and Management.** (3-0-3); on demand. The history, nature, organizational structure, and philosophy of the administration of public programs of income maintenance and other welfare services; consideration of the role of voluntary agencies.

SWK 525. **Social Work Practice III.** (3-0-3); I, II. The student will master advanced social work practice methods as they are applied to social systems and special populations.

SWK 530. **Social Policy and Planning.** (3-0-3); I, II. An analytical study of social welfare policy formulation, funding, and delivery systems and planning processes.

SWK 535. **Group Dynamics.** (3-0-3); I. This course is designed to give the student an understanding of group methods and the theories underlying the use of groups in the helping process. Special emphasis will be given to the processes that affect the development and functioning of all types of groups.

SWK 540. **Gerontology.** (3-0-3); II. (See SOC 540.)

SWK 545. **Death and Dying.** (3-0-3); I. (See SOC 545.)

SOCIOLOGY

SOC 101. **General Sociology.** (3-0-3); I, II, III. The nature and dynamics of human society. Basic concepts include: culture, groups, personality, social institutions, social processes, and major social forces.

SOC 170. **Rural Sociology.** (3-0-3); I. The cultural and social organizations of rural and urban societies with emphasis on the impact of economic changes and population movements.

SOC 201. **Sociology of Corrections.** (3-0-3); I, II. (See COR 201.)

SOC 203. **Contemporary Social Problems.** (3-0-3); I, II, III. A systematic and objective interpretation of contemporary social problems such as crime, delinquency, poverty, race relations, family problems, problems with emphasis on societal conditions under which deviance emerges, and the alleviation of such deviant behavior.

SOC 205. **The Family.** (3-0-3); I. The family in cross-cultural and historical perspective; as a social institution; the impact of economic and social conditions on family values, structure, functions, and roles.

SOC 302. **Population Dynamics.** (3-0-3); II. The U.S. population; social and economic characteristics; migration, mortality, and fertility trends; influence of social factors on population processes; basic techniques of population analysis; survey of population theories; data on international migration.

SOC 304. **Social Change.** (3-0-3); on demand. Change theories from early to contemporary scholars. Antecedents and effects of change; function, structure, and ramifications of change; normality of change in modernization, social evolution contrasted with social revolution.

SOC 305. **Cultural Anthropology.** (3-0-3); I, II. A study of literate and nonliterate cultures using the ethnographic approach. Universal aspects of human experience, including the family, economic, political and religious systems examined in cross-cultural perspective.

SOC 306. **Juvenile Delinquency.** (3-0-3); I, II. The extent, ecological distribution, and theories of delinquency in contemporary American society, including a critical examination of trends and methods of treatment of delinquency.

SOC 310. **The Sociology of Deviance.** (3-0-3); I. Designed to introduce the student to the sociological perspective with respect to the definition, courses, and social consequences of deviance.

SOC 312. **Sociology of Sports.** (3-0-3); on demand. The role of sports and games in the shaping and maintaining of values in the American culture. An examination of sport as expressed in aggression displacement, human welfare, patriotism, religion, group cohesion, sex, competition, and leisure.

SOC 323. **Urban Sociology.** (3-0-3); on demand. The rise of modern cities; theoretical explanations of urbanization; and the analysis of modern urban problems.

SOC 330. **Applied Medical Sociology.** (3-0-3); II. An examination of social, cultural, and psychological factors which influence health behaviors; an overview of health care delivery systems and policies; and an analysis of the role of social workers and other health professionals.

SOC 354. **The Individual and Society.** (3-0-3); I, II, III. The influence of group processes on individual behavior. Topics covered include personality formation and change; small group behavior and leadership patterns.

SOC 374. **American Minority Relations.** (3-0-3); I, II. Examines various processes of social and cultural contact between peoples; theories dealing with the sources of prejudice and discrimination; basic processes of intergroup relations; the reactions of minorities to their disadvantaged status; and means by which prejudice and discrimination may be combated.

SOC 375. **The Teaching of Social Studies.** (3-0-3); I. (See HIS 375.) (Does not count in the major or minor.)

SOC 376. **Industrial Sociology.** (3-0-3); on demand. Modern industrialization as social behavior. Social conditions in the rise of industrialism and effects on the worker; collective bargaining and industrial conflict; the industrial community social classes and the industrial order.

SOC 401. **Criminology.** (3-0-3); on demand. Cause, treatment, and prevention of crime.

SOC 405. **Sociological Theory.** (3-0-3); I, II, III. An introduction to basic theoretical approaches to the study of society and a survey of contributions to the field by major theorists.

SOC 420. **Seminar in Criminal Behavior.** (3-0-3); II. (See COR 420.)

SOC 450. **Research Methodology.** (3-0-3); I, II, III. Fundamental assumptions underlying sociological research; some practical experience in research design, data collection, techniques, and data analysis.

SOC 476. **Special Problems.** (1 to 3 hrs); I, II, III. **Prerequisite:** Consent of instructor and department head. Arranged with the department to study some particular aspect of the field of sociology.

SOC 510. **Principles of Sociology.** (3-0-3); on demand. This course is designed to give sociology majors an integrated perspective of the discipline and to provide an advanced introduction to graduate students entering sociology from related disciplines.

SOC 515. **Family Dynamics.** (3-0-3); II. An intensive analysis of the family in its social context. Emphases are placed upon social interaction within the family, socio-cultural and socio-economic factors which bear influence upon it, and the relationship of the family to the total social system.

SOC 525. **The Community.** (3-0-3); I. The general character of community relations in society, the structure and function of the community as a social system, the processes of balancing community needs and resources, and planned and unplanned social change.

SOC 540. **Gerontology.** (3-0-3); II. An analysis of aging designed to provide the student with a knowledge of the special factors involved in the aging pro-

cess as well as the social work techniques designed to aid such individuals to cope with the changes inherent in the aging process.

SOC 545. Death and Dying. (3-0-3); I. The analysis of death and dying as social processes and problems; strategies for working with dying persons.

SPANISH

SPA 101. Beginning Spanish I. (3-2-3); I, II. Practice in hearing and speaking through patterns.

SPA 102. Beginning Spanish II. (3-2-3); I, II. For those who have had a year of Spanish in high school or have passed 101. A continuation of SPA 101; practice hearing and speaking with patterns. Essentials of grammar.

SPA 201. Intermediate Spanish. (3-1-3); I. Prerequisite: SPA 102 or permission of the instructor. A reading course. Selections from famous modern authors to develop understanding and interpretation of the written language.

SPA 202. Advanced Conversation. (3-1-3); II. Prerequisite: SPA 102 or permission of the instructor. Intensive training in conversation. Films, magazines, and books used to practice different kinds of language.

SPA 220. Grammar and Composition. (3-0-3); I. Prerequisite: SPA 202 or permission of the instructor. Study and analysis of speaking and writing styles. Emphasis on written composition.

SPA 301. Spanish Literature. (3-0-3); I. A survey of the major periods and tendencies of Spanish literature from its beginning through the twentieth century.

SPA 302. Spanish American Literature. (3-0-3); II. A survey of major periods and tendencies of Spanish American literature from its beginning through the twentieth century.

SPA 311. Spanish and Spanish American Poetry. (3-0-3); II. A study of *Juglares*, *Cantares de Gesta*, *Romances*, *Mística*, *Poesía del Siglo de Oro*, *Romanticismo*, *Post Romanticismo*, *Modernismo*, *Siglo XX*.

SPA 312. Spanish Theatre. (3-0-3); on demand. A study of the evolution of the theatre from Juan Del Encina to Garcia Lorca.

SPA 313. Spanish Novel. (3-0-3); on demand. A survey of the novel from the thirteenth century, la *Novela de Caballería*, la *Picaresca*, la *Morisca*, la *Pastoral*, *Cervantes*, el *Costumbrismo*, la *Generación del 98*, el *Siglo II*.

SPA 405. Linguistics and Language Teaching. (3-0-3); III. For Spanish majors and minors. A seminar in various foreign languages requiring projects appropriate to the specialty of each.

SPA 501. Advanced Grammar. (3-0-3); on demand. Compulsory for those who plan to teach Spanish. A thorough study of the verbs and the structure of the language. Based on the Royal Academy Grammar.

SPA 523. Don Quixote de la Mancha. (3-0-3); on demand. A study of the masterpiece of Spanish literature.

SPA 532. Contemporary Spanish and Spanish American Literature. (3-0-3); on demand. A survey of significant characteristics of twentieth century Hispanic literature, including the novel, short story, drama, essay, and poetry.

SPA 540. Seminar in Hispanic Literature. (3-0-3); on demand. Group instruction and practices in research methods peculiar to Hispanic literature.

SPA 545. Spanish Drama from the Generation of 1898 to the Present. (3-0-3); on demand. A study of the major dramatists of dramatic trends from Benavente and his contemporaries through Garcia Lorca, Casona, and Buero Vallejo.

SPA 550. The Spanish Essay from the Eighteenth Century to the Present. (3-0-3); on demand. A study of the major essayists from Feijoo through Madariga.

SPA 555. Lope de Vega. (3-0-3); on demand. A study of the major dramatic and nondramatic works of Lope de Vega.

SPEECH

SPCH 100. Voice and Articulation. (3-0-3); I, II. Essentials of distinct utterance, phonetic transcription, and uses of the vocal mechanism.

SPCH 101. Voice Production I. (1 to 3 hrs.); upon demand. Competency-based individual voice production experiences and study with goals of increasing proficiency of student vocal production.

SPCH 102. Voice Production II. (1 to 3 hrs.); upon demand. Continued competency-based individual voice production experiences and study with goals of increasing proficiency of student vocal production.

SPCH 110. Basic Speech. (3-0-3); I, II, III. Development of proficiency in the use of oral language presentations.

SPCH 200. Oral Interpretation. (3-0-3); I. Communicating the meanings of prose, poetry, and dramatic literature through the use of body, voice, thought, and emotion.

SPCH 210. Listening. (3-0-3); I, II. The study and practice of skills in both retentive and empathic listening.

SPCH 220. Introduction to Communication Theory. (3-0-3); I (alternate years). A survey of communication theory with emphasis on the interpersonal aspects.

SPCH 300. Oral Communications. (3-0-3); upon demand. Development of appropriate classroom voice through study, exercise, practice in reading, describing, and motivating. Designed for elementary teaching majors.

SPCH 301. Advanced Voice and Articulation. (3-0-3); II (alternate years). Prerequisite: SPCH 100. Advanced training in voice production for the purpose of developing professional proficiency and flexibility beyond the scope of

the prerequisite first course. Students may be assessed a fee for materials distributed in class.

SPCH 305. Readers Theatre. (3-0-3); (alternate years). Prerequisite SPCH 200 or permission of the instructor. Applying the theories of oral interpretation to an audience-oriented production.

SPCH 310. Interpersonal Communication. (3-0-3); I. Conceptual elements and dynamics of informal person-to-person communication in both theory and practice. Students may be assessed a fee for materials distributed in class.

SPCH 315. Verbal Survival. (3-0-3); upon demand. The process of communication "action-reaction." Specific skills for recognition and defense from forms of daily manipulative communication.

SPCH 318. Nonverbal Communication. (3-0-3); II (alternate years). Components of nonverbal communication.

SPCH 320. Introduction to Corrective Speech. (3-0-3); I, II. Speech Correction for the classroom teacher.

SPCH 342. Instructional Communication. (3-0-3); upon demand. Study and practice of the oral communication skills required for effective secondary school teaching.

SPCH 370. Business and Professional Speech. (3-0-3); I, II, III. Study and practice in techniques of committee work, interview, and other speech forms required in business and the professions.

SPCH 380. Debate Practicum. (0-2-1); upon demand. Prerequisite: consent of the instructor. Activity and research for students involved in intercollegiate debate. May be repeated for a total of 6 hours credit.

SPCH 382. Argumentation and Debate. (3-0-3); II (alternate years). Making rational decisions through the debate process. Analysis, evidence, briefing, and refutation.

SPCH 383. Group Discussion. (3-0-3); I (alternate years). Analysis of the roles of participants and leaders in problem solving with experience in conducting formal and informal groups.

SPCH 385. Persuasion. (3-0-3); II. Nature and methods of persuasion for influencing group opinion and action. Recommended for business majors.

SPCH 388. Speech Practicum. (1-2-2); I, II. Prerequisite: approval of the instructor. Independent guided study in specific areas of speech through participation in the Intercollegiate Individual Events program. May be repeated up to a maximum of 6 hours credit.

SPCH 470. Interviewing for Employment. (1-0-1); II. Theory and practice of preparing for and responding to employment interviewing.

SPCH 471. Speech-Dramatic Arts Seminar. (1-0-1); upon demand. Resources and research techniques in speech and dramatic arts.

SPCH 510. Advanced Public Speaking. (3-0-3); upon demand. Preparation and delivery of longer and more complex speeches.

SPCH 521. Classical Rhetorical Theory. (3-0-3); upon demand. In-depth study of the rhetorical theory of Plato, Aristotle, Cicero, and other writers of the Greek and Roman periods.

SPCH 522. Contemporary Rhetorical Theory. (3-0-3); upon demand. Prerequisite: SPCH 521 or permission of the instructor. Development of rhetorical and communication theory from the Renaissance to the present.

SPCH 523. Rhetorical Criticism. (3-0-3); upon demand. Application of classical and modern rhetorical theory; analysis and criticism of selected speeches.

SPCH 527. American Public Address. (3-0-3); upon demand. Major speeches, speakers, and movements in America from the Colonial Period to the New Deal.

SPCH 530. Contemporary Public Address. (3-0-3); upon demand. Major speeches, speakers, and movements from the 1930s to the present.

SPCH 567. Organizational Communication. (3-0-3); II. A study of the dynamic function of communication which occurs within various organizational structures and related professional environments. Students may be assessed a fee for material distributed in class.

SPCH 570. Parliamentary Procedure. (3-0-3); II (alternate years). Theory and application of procedures used by profit and non-profit organizations.

SPCH 571. Interviewing. (3-0-3); II (alternate years). A detailed study of the various business interview types, coupled with role-playing experiences.

SPCH 583. Small Group Communication. (3-0-3); upon demand. Prerequisite: SPCH 383 or permission of instructor. Current theory and related concepts regarding the discussion process.

SPCH 595. Administering the Communications Program. (3-0-3); I (alternate years). Development and management of communications programs, including co-curricular activities. Students may be assessed a fee for materials distributed in class. (Lab fees will be assessed for each student.)

SPCH 597. Administering and Supervising the Co-Curricular Communication Arts Program. (3-0-3); upon demand. Prerequisite: SPCH 110. Nature, objectives, and values of a forensics program. Traditional high school forensic events with a laboratory experience in each. Students may be assessed a fee for materials distributed in class.

THEATRE

THEA 100. Fundamentals of the Theatre. (2-2-3); I, II. An introduction to the theatre as an art form, its historic and organizational structure. For theatre majors and minors.

THEA 110. Introduction to the Theatre. (3-0-3); I, II. Acting, set design, costume design, theatre architecture, lighting, playwriting, and make-up. For non-theatre majors and minors.

THEA 130. Summer Theatre I. (4-0-4); III. May be repeated. Prerequisite: acceptance to summer theatre or by permission. Practical experience in production with work in laboratory environment. A limit of four hours may be credited toward a degree program. Credit hours earned which exceed the limit may be applied to the minimum requirements for the A.B. degree.

THEA 200. Introduction to Dramatic Literature. (3-0-3); I, II. Representative dramatic literature from Greek antiquity to the present.

THEA 208. Beginning Ballet. (1-4-3); I. A study and application of basic ballet techniques.

THEA 210. Technical Production. (1-4-3); II. A study of the technical elements in theatrical production; set construction, lighting, and sound.

THEA 284. Acting Techniques. (3-0-3); I. A study of acting from both the aesthetic and the practical viewpoints; exercises in pantomime and vocal techniques.

THEA 300. Elements of Play Production. (3-0-3); I. Problems of play production; choice of script, casting production and backstage organization, and directing.

THEA 308. Intermediate Ballet. (1-4-3); II. Prerequisite: THEA 208 or permission of instructor. A further study of ballet techniques and profiles of famous dancers.

THEA 309. Tap Dancing. (1-4-3); I. A study and application of tap dance techniques.

THEA 310. Stage Movement. (2-0-2); upon demand. The study and practice of stage fighting and movement in various historical periods.

THEA 311. Theatre Practicum I. (1 to 3 hrs.); upon demand. May be repeated. Prerequisite: THEA 100 or approval of instructor. To provide independent guided study for the development of specialization in specific areas of the theatre.

THEA 312. Theatre Practicum II. (1 to 3 hrs.); upon demand. May be repeated. Prerequisite: THEA 311. A continuation of Theatre 311.

THEA 313. Theatre Practicum III. (1 to 3 hrs.); upon demand. May be repeated. Prerequisite: THEA 312. A continuation of Theatre 312.

THEA 315. Stage Make-up. (1-4-3); upon demand. Study and application of make-up and techniques for the stage.

THEA 316. Stage Properties. (1-4-3); upon demand. The study and practice of stage properties, their construction, acquiring, and repair; the study of furniture history.

THEA 317. Scene Painting. (1-4-3); upon demand. The study and practice of paints and painting techniques as they apply to the scenic artist.

THEA 320. Sceneographic and Drawing Techniques. (1-4-3); I. The study and practice of basic drawing techniques which uniquely apply to theatrical design and mechanical working drawing for stage scenery.

THEA 321. Stage Lighting. (3-0-3); upon demand. Prerequisite: THEA 210 and 320. The mechanical and artistic approach to stage lighting; study of electrical theory and instrument utilization.

THEA 322. Scene Design. (1-4-3); II. Prerequisite: THEA 210 and 320. The study of design theories with the creation and development of scene design projects and rendering techniques.

THEA 325. Stage Costume and History I. (1-4-3); upon demand. Creation of costume design with emphasis on the principles of design and rendering techniques related to historic design.

THEA 326. Stage Costume and History II. (1-4-3); upon demand. Creation of costume design with emphasis on the principles of design and rendering techniques related to historic design.

THEA 327. Creative Sewing for the Theatre I. (1-4-3); upon demand. A course in creating original patterns for stage costumes and construction techniques.

THEA 328. Creative Sewing for the Theatre II. (1-4-3); upon demand. An advanced course in creating original patterns for stage costumes.

THEA 330. Summer Theatre II. (4-0-4); III. Prerequisite: THEA 130 and acceptance to summer theatre company. Crew assignments in areas other than those completed in THEA 130. May be repeated. A limit of four hours may be credited towards a degree program. Credit hours earned which exceed the limit may be applied to the minimum requirements for the A.B. degree.

THEA 354. Theatre History. (3-0-3); I. A study of the origins and development of theatre.

THEA 375. Creative Dramatics. (3-0-3); I, II. An analysis and application of principles of creative dramatics as applied to classroom curricular activities.

THEA 380. Play Directing. (3-0-3); II. Prerequisite: THEA 100 and 210 or permission of instructor. Theories and principles of directing; director's interpretation; casting; planning action and making the prompt-book.

THEA 408. Advanced Ballet. (1-4-3); upon demand. Prerequisite: THEA 308 or permission of the instructor. Advanced study of ballet techniques and profiles of historic dances.

THEA 512. Playwriting. (3-0-3); on demand. Prerequisite: THEA 200, THEA 100, or by permission of instructor. An analysis of the structure of plays and the writing of original scripts.

THEA 513. Advanced Play Direction. (3-0-3); on demand. Prerequisite: THEA 380. To develop greater proficiency in techniques of directing as related to specific productions and staging problems.

THEA 530. Summer Theatre III. (4-0-4); may be repeated. Prerequisites: THEA 300 and acceptance to summer theatre company. Advanced assignments in set and costume design or advanced acting and directing.

THEA 552. Early Dramatic Literature. (3-0-3). A detailed study of representative plays from the Greeks to mid-nineteenth century.

THEA 553. Modern Dramatic Literature. (3-0-3); II. A detailed study of the drama from the growth of realism to the present day.

THEA 555. Dramatic Criticism. (3-0-3); on demand. Prerequisite: THEA 200, THEA 100, THEA 554, or by permission of instructor. Dramatic theory and criticism as developed through Aristotle, Horace, the middle ages, the Renaissance, and the twentieth century.

THEA 562. Advanced Acting. (3-0-3); II. Prerequisite: THEA 284. Advanced study of acting, including analysis and development of characters in acting situations.

THEA 563. Advanced Costuming. (3-0-3); I. Prerequisite: THEA 326 or permission of instructor. Designing costumes for theatrical production, making patterns, and the fabrication of garments for the stage.

THEA 564. Advanced Scene Design. (3-0-3); II. Prerequisite: THEA 210, 320, and 322 or permission of instructor. To develop greater proficiency in the skills of scenic design as applied to specific problems and theatrical productions.

THEA 565. Advanced Stage Lighting. (3-0-3); II. Prerequisite: THEA 210, 320, and 322 or permission of instructor. To develop proficiency in the skills of lighting specific productions; to research topics and special problems pertaining to stage lighting.

THEA 570. Children's Theatre. (3-0-3); II. Prerequisite: THEA 100. A concentrated study of the problems involved in organization and production of plays for and with children.

VETERINARY TECHNOLOGY

VET 102. Introduction to Veterinary Technology. (2-3-3); I. Prerequisite: acceptance into veterinary technology program. A course designed to acquaint the student with the profession of veterinary medicine and veterinary technology, professional ethics, jurisprudence, and medical terminology. The laboratory will emphasize utilization of lecture information while performing basic clinical tasks such as phone answering, client education, physical exams, restraint, and treatment procedures.

VET 105. Anatomy of Domestic Animals. (2-2-3); I. Prerequisite: acceptance into veterinary technology program. A course designed to acquaint the student with the anatomical structures of the animal body. Abnormal conditions and diseases will be discussed as a comparison to normal situations. Studied will be cell and tissue types, organs, and organ systems of the body, both in lecture theory and laboratory practical application, including cat dissection.

VET 106. Animal Science and Breeds Identification. (2-2-3); I. Prerequisite: acceptance into veterinary technology program. An introduction to animal care for large and small animals as it relates to the practice of veterinary medicine, including practical nutrition, animal breeding, animal products, animal shelter, genetics, and conformation. The breed identification portion of the course will consist of recognizing unique characteristics of the breed along with visual recognition.

VET 107. Laboratory Techniques I. (2-2-3); I. Prerequisite: acceptance into veterinary technology program. A study of the principles and practices of clinical pathology as they relate to the responsibilities of the technician. It is designed to develop the manual dexterity and clinical accuracy necessary to process medical samples from patients. Presentations include comparative hematology, heartworm, and fecal exams. Emphasis is placed on the clinical aspects of laboratory exams and the theory behind the tests utilized in a veterinary or biomedical laboratory.

VET 206. Physiology of Domestic Animals. (2-3-3); II. Prerequisite: VET 105. A course designed to acquaint the student with basic normal life processes and functions of the animal body. Abnormal conditions and diseases will be discussed as a comparison to normal situations. Studied will be cell and tissue types, organs and organ systems of the body, both in lecture theory and laboratory practical application.

VET 208. Laboratory Techniques II. (2-3-3); II. Prerequisite: VET 107. A continued study of clinical pathology designed to develop the laboratory ability and theory behind clinical blood chemistries, serological tests, urinalysis, cytology, and semen evaluation. The lab sessions are designed to enable the student to develop the techniques necessary to provide the DVM with accurate laboratory results. Presentations include blood chemistry exams and major organ involvement, urinalysis, vaginal cytology, and semen evaluation. Procedures for collection and shipment of laboratory specimens to reference labs is included. Emphasis is placed on the clinical aspects of lab tests and the theory behind the exams utilized in a veterinary or biomedical laboratory.

VET 210. Parasitology and Entomology. (2-0-2); III. Prerequisite: VET 107. A course designed to develop the theory behind laboratory exams for internal and external parasites. Studied will be common internal, external, and blood parasites of domestic animals as to etiology, life cycles, clinical signs, diagnosis, treatment, and control. Public health concerns will also be discussed. Laboratory exam of internal and blood parasites is covered in VET 107—Laboratory Techniques I. Exam of external parasites is covered in VET 210.

VET 215. Clinical Practices I. (1-3-2); II. Prerequisite: VET 102. A course designed to acquaint the student with the essential clinical tasks related to handling, care, and treatment of small animals and laboratory animals in a clinical situation. Surgical nursing and operating room procedures will also be emphasized.

VET 220. Clinic Rotation I. (0-6-1); II. Prerequisite: completion of all previous veterinary technology courses. Planned clinical experience to help

upgrade technical competence. It will consist of a minimum of 90 hours of on-the-job experience to be arranged by program instructors and the student.

VET 221. Clinic Rotation II. (0-6-1); **III. Prerequisite:** VET 220. Planned clinical experience to help upgrade technical competence. It will consist of a minimum of 90 hours of on-the-job experience to be arranged by program instructors and the student.

VET 222. Clinic Rotation III. (0-6-1); **III. Prerequisite:** VET 221. Planned clinical experience to help upgrade technical competence. It will consist of a minimum of 90 hours of on-the-job experience to be arranged by program instructors and the student.

VET 223. Clinic Rotation IV. (0-6-1); **I. Prerequisite:** VET 222. Planned clinical experience to help upgrade technical competence. It will consist of a minimum of 90 hours of on-the-job experience to be arranged by program instructors and the student.

VET 308. Laboratory Techniques III. (2-2-3); **III. Prerequisite:** VET 208. A continued study of clinical pathology, focusing on bacteriology and mycology, and an introduction to virology. Emphasis is on the practical clinical laboratory applications, including collection, handling, culture, identification, and sensitivity testing of cultures.

VET 315. Clinical Practices II. (1-3-2); **I. Prerequisite:** VET 215. A course designed to acquaint the student with the essential clinical tasks related to handling, care, and treatment of large animals in a clinical situation. Regulatory requirements for the movement of livestock, mastitis control programs, the performance of necropsies and principles of meat inspection are studied.

VET 333. Small Animal Diseases and Nutrition. (2-0-2); **III. Prerequisite:** VET 206. **Corequisite:** VET 308. A study of canine and feline diseases with emphasis on zoonosis, client education, and nutritional support of diseased animals.

VET 339. Pharmacology for the Veterinary Technician. (2-2-3); **III. Prerequisite:** VET 105. The study of pharmacology designed to acquaint the student with the basics of drugs used in current veterinary medicine. Emphasis is on classification of drugs based on effect and therapeutic usage, source of drug, standards and regulations, weights and measures, conversions, labeling, and pharmacy maintenance. Anesthetic drugs and principles of anesthesiology will be emphasized in the laboratory.

VET 340. Radiology. (2-3-3); **II. Prerequisite:** VET 102. Principles concerning techniques in radiology and safety are confirmed through repeated laboratory exercises. Instructional emphasis in radiological patients, exposed films, and process exposed radiographs of diagnostic value.

VET 346. Large Animal Diseases and Nutrition. (3-0-3); **I. Prerequisites:** VET 106, 206, and 308. A study of the diseases of large animals with emphasis on disease control, zoonosis, and nutritional support of diseased animals. Included are the equine, bovine, porcine, ovine, and caprine species.

VET 350. Laboratory Animal Medicine. (2-0-2); **I. Prerequisites:** VET 206 and VET 215. A study of the technical clinical aspects of laboratory animal care, including restraint and handling, common diseases, and nutrition. This course will help the student prepare for the American Association for Laboratory Animal Science (AALAS) provisional certification examination. Species studied will include rabbits, rats, mice, guinea pigs, hamsters, and primates.

VET 360. Preceptorship (0-40-10); **II. Prerequisite:** completion of all previous courses in veterinary technology. The preceptorship consists of two seven-week sessions of "on the job" training with a graduate licensed veterinarian in private practice. Visitation by staff and weekly written reports by the preceptor supervise the course. A two-week seminar at the completion of preceptorship is conducted by veterinary technology staff upon return to Morehead State University.

WELDING TECHNOLOGY

WEL 101. Oxyacetylene Welding. (3-0-3); **I.** Instruction on equipment, material, and supplies needed for oxyacetylene welding, including chemistry of gases, torches, regulators, and required techniques needed for ferrous and nonferrous materials.

WEL 101A. Oxyacetylene Welding Laboratory. (0-9-3); **I.** Application of theory, including preparation of equipment and welding of different materials in both in-position and out-of-position joints.

WEL 102. Arc Welding. (3-0-3); **II.** Principles of stick electrode welding, including power supplies, polarities, type electrodes, and techniques required for ferrous and nonferrous materials.

WEL 102A. Arc Welding Laboratory. (0-9-3); **II.** Application of theory, including weld joint design and fabrication techniques in the development of several required weld joint coupons and other media.

WEL 201. Inert Gas Welding. (3-0-3); **I.** Basic theory of inert gas consumable and nonconsumable welding techniques, including necessary equipment, power supplies, and inert gas.

WEL 201A. Inert Gas Welding Laboratory. (0-9-3); **I.** Application of theory through development of welds requiring machine set-up for proper techniques and required adjustments. Students will prepare joints on several types of metals using proper techniques.

WEL 202. Weld Joint Design and Testing. (3-0-3); **II.** Basic static and dynamic calculation for development of standard butt, fillet, t-joints, and others commonly used in industrial fabrication and manufacturing product design.

WEL 204. Welding Codes and Blueprint Reading. (3-0-3); **II.** Study of A.W.S. standard welding symbols and A.S.T.M. codes normally used in weld design engineering. Common engineering graphic techniques associated with weld joint design and structural engineering.

WEL 205. Welding Metallurgy. (3-0-3); **I.** Physical and chemical metallurgical characteristics commonly associated with phase changes during and after fusion techniques of ferrous and nonferrous metals.

WEL 307. Automated Welding Technology. (0-6-3); **II.** Metal inert gas welding techniques adapted to robots and other automated welding systems. Suitable for both welding technology students and other students involved with the robotics engineering technology option.

WEL 386. Welding I. (2-2-3); **I,II.** Pressure, non-pressure, and brazing processes for material fabrication. Arc, oxyacetylene, inert gas, and special welding techniques. Coupon analysis required for destructive and nondestructive testing.

Administrative Directory

Board of Regents

Robert M. Duncan, Inez
Lloyd Cassity, Ashland
Walter Carr, Morehead
Eunice Caston, Winchester
Forest M. Skaggs, Lynch
Harry LaViers Jr., Irvine
John Baird, Pikeville
James M. Richardson, Owingsville
John R. Duncan, Faculty
Michael Fox, Student

Officers of the Board

Robert M. Duncan, Chairman
Carol Johnson, Secretary

Office of the President

Herb. F. Reinhard Jr., President
Executive Assistant to the President (to be named)

Academic Affairs, Bureau of

Walter G. Emge, Vice President for Academic Affairs
Mike Mincey, Coordinator of Academic Support Services
Reedus Back, Dean of Graduate Programs
Terry W. Stewart, Coordinator of Regional Instruction
Patty Watts, Coordinator of Graduate Programs
John Kleber, Director of Honors Program
Jack Ellis, Director of Libraries
Stephen Taylor, Director of Counseling, Testing, and Evaluation Services
Gene Ranvier, Registrar
Dan Cornett, Associate Registrar
Wanda Bigham, Associate Dean of Academic Affairs
George W. Eyster, Director of Continuing Education
George Troutt, Coordinator of In-Service Education

Applied Sciences and Technology, School of

Charles Derrickson, Dean
Andrew Boston, Head, Department of Agriculture
Robert Newton, Head, Department of Industrial Education and Technology
Michael J. Shaner, Head, Department of Home Economics
Betty M. Porter, Head, Department of Nursing and Allied Health Sciences

Business and Economics, School of

William M. Whitaker III, Dean
M. Louise Hickman, Head, Department of Information Sciences
Robert E. Meadows, Head, Department of Management and Marketing
Bernard Davis, Head, Department of Accounting and Economics

Education, School of

Dean (to be named)
Paul R. McGhee, Head, Department of Curriculum and Instruction
Harold Rose, Head, Department of Leadership and Foundations
George Tapp, Head, Department of Psychology
Earl Bentley, Head, Department of Health, Physical Education, and Recreation

Humanities, School of

Robert L. Burns, Dean
Thomas Sternal, Head, Department of Art
Jack Wilson, Head, Department of Communications
Charles Pelfrey, Head, Department of Languages and Literature
William Bigham, Head, Department of Music
Frank Mangrum, Head, Department of Philosophy

Sciences and Mathematics, School of

Charles Payne, Dean
Glenn Johnston, Head, Department of Mathematical Sciences
Jerry Howell, Head, Department of Biological and Environmental Sciences
John Phillely, Head, Department of Physical Sciences

Social Sciences, School of

Alban Wheeler, Dean
Donald Flatt, Head, Department of History

Jack Bizzel, Head, Department of Government and Public Affairs
George Dickinson, Head, Department of Sociology, Social Work and Corrections

Gary Cox, Head, Department of Geography
Bruce Miller, Professor of Military Science

Fiscal Affairs, Bureau of

John Graham, Vice President for Fiscal Affairs
Glen Boodry, Director of Physical Plant
Frank Burns, Property Accounting Officer
Gene Caudill, Senior Accountant
Virginia Caudill, Director of Payrolls
John Collis, Manager of University Store
Lawrence Crum, Manager, Vending and Concessions
Bernard Ewers, Manager, Alumni Tower Cafeteria
Ron Jones, Collection Officer
Timothy Rhodes, Bursar
Sharon Roberts, Accountant
Steve Schafer, Senior Accountant
William Sloan, University Postmaster
Robert Stokes, Director of Purchases
Michael Walters, Controller
Ron Moss, Director of Personnel
Jean Wells, Manager, ADUC Cafeteria
Jim Wells, Manager, University Golf Course

Student Affairs, Bureau of

Buford Crager, Vice President for Student Affairs
Larry Stephenson, Director of Administrative Services
Anna Mae Riggle, Dean of Students
Clyde James, Director of Student Activities and Organizations
Susette Redwine, Associate Director of Student Activities and Organizations
Sue Wells, Associate Director of Student Activities and Organizations
Ronald Walke, Director of Student Financial Aid and Veteran Affairs
Ellen Carscaddon, Associate Director of Student Financial Aid and Veteran Affairs

James Morton, Director of Student Housing
Madonna Huffman, Associate Director of Student Housing
Kenneth White, Associate Director of Student Housing
Jack Henson, Director of University Center Services
Donny Crooks, Associate Director of University Center Services
Gary Messer, Director of Safety and Security
E.J. Music, Associate Director of Safety and Security
Milton Wright, Director of Student Health Services
Mary Jane Blair, Head Nurse, Student Health Services

University and Regional Services, Bureau of

Philip W. Conn, Vice President for University and Regional Services
Director of Admissions (to be named)
Patricia Needham, Associate Director of Admissions (Application and Processing)
Charles Myers, Associate Director of Admissions (Information and Orientation)
Donald L. Fogus, Director, Appalachian Development Center
Douglas Dotterweich, Assistant Director for Regional Research, ADC
James M. Gifford, Assistant Director for Appalachian Studies, ADC
Wilson C. Grier, Assistant Director for Business Development, ADC
Shirley P. Hamilton, Assistant Director for Human Services, ADC
Garry Barker, Communications Coordinator, ADC
Carole C. Morella, Director of Grants and Contracts
C. Victor Ramey, Associate Director of Grants and Contracts
William T. Rosenberg, Director of Media Services
James L. Cook, Coordinator of Media Engineering
Neal Wheeler, Coordinator of Audio-Visual Services
Richard Mackey, Coordinator of Television Production
Larry Netherton, General Manager of WMKY Radio
Myron Doan, Assistant Manager of WMKY Radio
Ray Roberts, Chief Engineer of WMKY Radio
Harry Ryan, Coordinator of Community Services
Margaret L. Shepherd, Coordinator of Placement Services

Athletics, Division of

G.E. Moran Jr., Director of Athletics

John Allen, Assistant Director of Athletics

**Alumni, Development, and Public Affairs,
Division of**

Keith Kappes, Director

George Burgess, Manager of Photographic Services

Mary Bragg, Publications Editor

Kath Wagar, Graphic Designer

Martin Huffman, Manager of Printing Services

David Miller, Printing Production Supervisor

William Redwine, Coordinator of Giving Programs

Dan Kiser, Athletic Development Officer

Craig Bohnert, Sports Information Director

Danny Wright, Coordinator of News Services

Tami Blong, Development Officer

Don Young, Coordinator of Alumni Relations

Lois Howell, Associate Coordinator of Alumni Relations

Pauline Davis, Alumni Records Specialist

Budgets, Division of

Porter Dailey, Director

Norma J. Froehlich, Budget/Policy Analyst

**Planning, Information Systems, and
Computing Services, Division of**

Charles Hicks, Director

Kathy Caskey, Computer Operator

Michael Gresham, Systems Manager

Debbie Atkinson, Systems Analyst

Lawrence Haffner, Assistant Manager for Academic Systems

Linda Higginbotham, Coordinator of Institutional Research

Kevin B. James, Programmer

William Mahaney, Manager of Applications

Jill P. Oddis, Research Assistant

Paula O'Daniel, Computer Operator

Jeanne Osborne, Research Analyst

Beth Patrick, Programmer

Guy Schuler, Communications Coordinator

C.B. McCoy, Programmer

Faculty

The date in parentheses after the name is that of first appointment to a position on the faculty of this university.

School of Applied Sciences and Technology

Department of Agriculture

Donald Lyn Applegate, associate professor (1984), D.V.M., Auburn University
 Joe F. Bendixen, professor (1971), Ph.D., Iowa State University
 Andrew C. Boston, professor (1982), Ph.D., Oklahoma State University
 Gene D. Carswell, instructor (1978), B.S., Middle Tennessee State University
 Charles M. Derrickson, professor (1965), Ph.D., Michigan State University
 Max F. Hawkins, assistant professor (1983), Ph.D., University of Tennessee
 Barbara Krakoff, instructor (1981), B.A., A.H.T., State University College of New York at Buffalo
 James C. Martin, associate professor (1975), Ph.D., University of Missouri
 Tamara A. McMillan, instructor (1979), B.S., William Woods College
 Martha Norris, associate professor (1976), Ed.S., Morehead State University
 Judith G. Willard, associate professor (1977), Ph.D., University of Kentucky
 Robert H. Wolfe, associate professor (1967), M.S., Virginia Polytechnic Institute and State University

Department of Home Economics

Jane C. Ellington, assistant professor (1981), M.S., University of Kentucky
 Nancy Graham, R.D., assistant professor (1975), M.S., University of Kentucky
 Roydell Osteen, instructor (1981), M.S., University of Arkansas
 Michael J. Shaner, associate professor (1984), Ph.D., University of North Carolina at Greensboro
 Carolyn Taylor, assistant professor (1974), Ed.S., Morehead State University
 Betty Fritz Woodard, instructor (1980), M.S., University of Kentucky

Department of Industrial Education and Technology

Richard Bradford, instructor (1981), M.S., Morehead State University
 Donal L. Hay, professor (1976), Ph.D., Texas A & M University
 Robert T. Hayes, assistant professor (1974), M.S., Eastern Kentucky University
 Richard Jinbo, assistant professor (1981), M.S., Bowling Green State University
 Dennis Karwatka, associate professor (1970), M.S., Indiana State University
 Bruce Kranc, instructor (1983), M.A., University of New Mexico
 Wayne Morella, assistant professor (1971), Ph.D., Southern Illinois University
 Jeff Murphy, instructor (1980), M.S., Morehead State University
 Edward G. Nass, associate professor (1963), M.S.Ed., Northwestern State College of Louisiana
 Robert E. Newton, professor (1963), Ed.D., Texas A & M University
 Gary Oakley, associate professor (1982), Ph.D., Southern Illinois University
 Meade S. Roberts, associate professor (1966), M.Ed., University of Cincinnati
 Dave Ross, assistant professor (1982), Ph.D., University of Cincinnati
 Sam Thompson, instructor (1981), B.S.-P.E., Morehead State University, and state of Wisconsin
 Ronald Tucker, professor (1968), Ed.D., Oklahoma State University
 Pepper A. Tyree, assistant professor (1973), M.S., Murray State University
 John VanHoose, assistant professor (1976), M.S., Morehead State University

Department of Nursing

Alta Blair, instructor (1984), B.S.N., University of Kentucky
 Janice Brumagen, assistant professor (1972), M.A.C.E., Morehead State University
 Barbara Crisp, instructor (1982), B.U.S., R.T.(R)A.R.R.T., Morehead State University
 Jacklynn K. Darling, instructor (1979), M.S., R.T.(R)A.R.R.T., Morehead State University

Brenda Henry, instructor (1982), B.S.N., Marion College
 Barbara Hensley, instructor (1983), M.S.N., University of Kentucky
 Mary Hoft, instructor (1983), B.S.N., University of Missouri
 Nancy Joseph, instructor (1983), B.S.N., University of Kentucky
 Sheryl Luchtefeld, instructor (1980), B.S.N., Southern Illinois University
 Leroy Overstreet, associate professor (1981), Ed.D., West Virginia University
 Betty Porter, associate professor (1971), M.S.N., University of Kentucky
 Pauline Ramey, assistant professor (1973), Ed.S., Morehead State University
 Rae P. Smith, assistant professor (1983), B.S.R.T.(R)A.R.R.T., Alderson-Broadus College
 Elizabeth Tapp, assistant professor (1972), M.A.C.E., Morehead State University
 Ronnie Tolley, associate professor (1982), D.N.Sc., Catholic University of America

Mining Technology Program

J. Wesley Blakely, chairholder (1983), B.A., Concord College
 Forrest Cameron, assistant professor (1978), M.B.A., Morehead State University
 Sampath Kumar, assistant professor (1978), M.S., Southern Illinois University

School of Business and Economics

Department of Accounting and Economics

John M. Alcorn, associate professor (1976), M.B.A., Georgia State University
 Roland Buck, assistant professor (1983), Ph.D., Texas A&M University
 Everett Campbell, professor (1983), Ph.D., Temple University
 Alex D. Conyers, associate professor (1958), M.B.A., University of Kentucky
 Bernard Davis, professor (1978), Ph.D., University of Kentucky
 John Graham III, assistant professor (1967), M.H.E., Morehead State University
 Louis S. Magda, professor (1966), Ph.D., Jozsef Nador University
 Vernon L. McGlone, assistant professor (1984), M.B.A., University of Kentucky
 Green R. Miller, assistant professor (1979), M.A., University of Oregon
 Thomas C. Morrison, professor (1969), Ph.D., North Carolina State University
 John W. Osborne, assistant professor (1977), M.B.A., Eastern Kentucky University
 Rosemary Peavler, instructor (1983), M.B.A., University of Kentucky
 William Sharp, instructor (1970), M.B.E., Morehead State University
 Larry Stephenson, assistant professor (1967), M.A., Morehead State University
 Gary L. Van Meter, associate professor (1976), M.B.A., Southern Illinois University
 William M. Whitaker III, professor (1975), Ph.D., University of Kentucky
 Lowell K. Williams, instructor (1982), M.B.A., Miami University

Department of Information Sciences

Bonnie H. Bailey, instructor (1979), M.B.A., Morehead State University
 Ray Bernardi, professor (1984), Ph.D., University of Oklahoma
 Herbert Berry, assistant professor (1980), Ph.D., New York University
 Kurt R. Gorham, systems analyst (1984), B.B.A., Morehead State University
 Jack Henson, assistant professor (1970), M.S.E., Arkansas State University
 M. Louise Hickman, professor (1968), Ed.D., University of Kentucky
 Clifford S. Hunt, instructor (1984), M.B.E., Morehead State University
 Sue Y. Luckey, professor (1963), Ph.D., Southern Illinois University
 Carole C. Morella, assistant professor (1966), M.A., Morehead State University
 Paul J. Mulcahy, systems analyst (1981), B.B.A., Morehead State University
 Helen A. Northcutt, assistant professor (1966), A.M., Morehead State University
 Gail C. Ousley, assistant professor (1969), M.B.E., Morehead State University
 William A. Rodgers, professor (1982), Ed.D., University of Virginia
 Helen Williams, instructor (1978), M.B.E., Morehead State University

Department of Management and Marketing

Sadia Al-Jibouri, assistant professor (1983), M.B.A., University of Texas at Austin
 Rodger D. Carlson, professor (1983), Ph.D., Claremont University College
 C. Dale Caudill, instructor (1980), M.B.A., Morehead State University
 Michael Harford, chairholder and assistant professor of Real Estate (1981), J.D., Wake Forest University
 Eugene Martin, professor (1972), Ed.D., University of Cincinnati
 Teresa McGlone, assistant professor (1984), M.B.A., Marshall University
 Robert E. Meadows, professor (1982), D.B.A., Kent State University
 Mary Peggy Osborne, instructor (1979), M.B.A., Morehead State University
 Jack W.R. Peters, associate professor (1979), Ph.D., University of North Dakota
 Bill B. Pierce, professor (1964), Ed.D., Wayne State University
 Margaret L. Robbins, assistant professor (1984), M.B.A., East Tennessee State University
 David L. Turnipseed, assistant professor (1983), M.B.A., University of Alabama
 Vinson Watts, adjunct assistant professor (1968), M.A., Eastern Kentucky University

School of Education

Department of Curriculum and Instruction

Shirley Blair, assistant professor (1970), A.M., Morehead State University
 Diane Cox, assistant professor (1978), Ed.S., Morehead State University
 Gretta Duncan, assistant professor (1968), A.M., Morehead State University
 Dennis L. Edinger, professor (1979), Ph.D., University of Florida
 Kent Freeland, associate professor (1977), Ph.D., University of Iowa
 Carol Ann Georges, assistant professor (1970), M.A., University of Kentucky
 Lawrence E. Griesinger, professor (1965), Ed.D., University of Cincinnati
 Coletta Grindstaff, assistant professor (1969), A.M., East Tennessee State University
 Karen Hammons, instructor (1972), M.A., Morehead State University
 Coleene Hampton, instructor (1973), A.M., Morehead State University
 Katherine Herzog, associate professor (1979), Ed.D., Florida State University
 Lois Huang, assistant professor (1969), M.A., University of Michigan
 Jessie Mangrum, assistant professor (1968), A.M., Morehead State University
 Paul R. McGhee, professor (1983), Ph.D., Syracuse University
 Rodney Don Miller, professor (1966), Ed.D., Indiana University
 Bill F. Moore, associate professor (1970), Ph.D., University of Iowa
 John W. Payne, professor (1969), Ed.D., University of Kentucky
 Mary Ann Pollock, assistant professor (1977), A.M.E.D., Morehead State University
 Diane Ris, S.P., associate professor (1977), Ed.D., Ball State University
 William T. Rosenberg, assistant professor (1970), A.M., Morehead State University
 Barbara E. Russell, assistant professor (1983), Ed.D., Arizona State University
 Layla Sabie, associate professor (1965), Ed.D., George Peabody College
 Patricia H. Turnipseed, assistant professor of education (1982), Ed.D., The University of Alabama
 Patricia Watts, adjunct assistant professor (1970), M.H.E., Morehead State University
 Randall Wells, professor (1968), Ph.D., Union Graduate School
 Sue Wells, assistant professor (1968), A.M., Morehead State University
 Charles Whitfield, assistant professor (1980), Ed.D., Texas Tech University
 Stephen Young, assistant professor (1968), Ed.D., Indiana University

Department of Health, Physical

Education, and Recreation

Palmer Adkins, assistant professor (1979), M.A., Morehead State University
 John E. Allen, assistant professor (1954), M.A., Morehead State University
 Earl J. Bentley, professor (1959), Ed.D., University of Southern Mississippi
 Laradean Brown, assistant professor (1972), M.A., Morehead State University
 W. Michael Brown, associate professor (1966), Ph.D., University of Southern Mississippi
 Rex Chaney, associate professor (1961), R.E.D., Indiana University
 Steve Hamilton, instructor (1976), M.A., Morehead State University
 Edward Lucke, professor (1969), Ed.D., George Peabody College
 Sue Lucke, assistant professor (1969), M.A., Morehead State University
 Michael Mincey, instructor (1975), M.A., Morehead State University
 G.E. Moran, associate professor (1974), M.A., West Virginia University
 Elizabeth Nesbitt, assistant professor (1973), M.Ed., University of Southern Mississippi
 Howard Nesbitt, professor (1973), Ed.D., Columbia University

Gretta Gaye Osborne, assistant professor (1965), M.A., Ball State University
 James Osborne, assistant professor (1967), M.A., Morehead State University
 Paul A. Raines, professor (1966), Ph.D., University of Iowa
 Mohammed Sabie, professor (1964), Ed.D., George Peabody College
 Harry F. Sweeney, associate professor (1969), Ed.D., University of Tennessee
 Charles B. Thompson, professor (1963), Ed.D., University of Southern Mississippi
 Robert M. Wells, assistant professor (1966), M.A., Morehead State University
 Larry Wilson, adjunct assistant professor (1968), M.A., Morehead State University

Coaches

Bill J. Baldrige, head football coach (1983), M.A., Morehead State University
 Wayne Martin, head basketball coach (1978), M.A., Morehead State University

Department of Leadership/Foundations

Reedus Back, professor (1962), Ed.D., University of Kentucky
 Wanda Bigham, assistant professor (1973), Ed.D., University of Kentucky
 Frank Burns, assistant professor (1973), M.A., Morehead State University
 Buford Crager, assistant professor (1967), M.H.E., Morehead State University
 Richard Daniel, professor (1976), Ed.D., North Carolina State University
 John R. Duncan, professor (1964), Ed.D., Indiana University
 George W. Eyster, associate professor (1968), Ed.S., Michigan State University
 Jerry Franklin, assistant professor (1969), M.Ed., Xavier University
 Charles Hicks, professor (1971), Ph.D., Southern Illinois University
 John T. Holton, associate professor (1980), Ph.D., Ohio State University
 John S. Klein, assistant professor of education (1982), Ph.D., Teachers College of Columbia University
 Harry C. Mayhew, associate professor (1963), Ed.D., Ball State University
 Ronald Mersky, associate professor (1979), Ed.D., Virginia Polytechnic Institution and State University
 Arden Thomas Miller, assistant professor of education (1982), Ph.D., Purdue University
 Robert C. Needham, professor (1961), Ed.D., University of Kentucky
 Morris L. Norfleet, professor (1962), Ph.D., Purdue University
 Dean Owen, associate professor (1977), Ph.D., University of Florida
 Gene A. Ranvier, instructor (1977), M.A., Ball State University
 Harold Rose, professor (1968), Ph.D., Florida State University
 Gary Silker, adjunct instructor (1980), Ed.D., Oklahoma State University
 Stephen Taylor, professor (1973), Ph.D., Florida State University
 Dan Thomas, professor (1969), Ph.D., University of Southern Mississippi
 William Weikel, professor (1975), Ph.D., University of Florida
 Jean Wilson, associate professor (1978), Ed.D., Indiana University

Department of Psychology

L. Bradley Clough, professor (1966), Ph.D., University of Connecticut
 James E. Gotsick, professor (1968), Ph.D., Syracuse University
 Anna Lee Demaree, associate professor (1971), Ph.D., University of Kentucky
 Bruce A. Mattingly, associate professor (1980), Ph.D., University of Kentucky
 Charles Morgan, associate professor (1979), Ph.D., University of Florida
 Francis Osborne, professor (1967), Ph.D., Syracuse University
 Russell A. Radenhausen, assistant professor (1984), Ph.D., University of South Florida
 George S. Tapp, professor (1968), Ph.D., University of Kentucky

School of Humanities

Department of Art

David Bartlett, associate professor (1980), M.F.A., University of Michigan
 Bill R. Booth, professor (1970), Ph.D., University of Georgia
 Louise Booth, adjunct professor (1971), M.A., George Peabody College
 Dixon Ferrell, associate professor (1980), M.F.A., University of Mississippi
 Robert Franzini, associate professor (1980), M.F.A., University of Iowa
 Ryan Howard, professor (1972), Ph.D., University of Michigan
 Roger H. Jones, professor (1965), Ed.D., Indiana University
 Joe D. Sartor, assistant professor (1968), M.A., University of Missouri
 Thomas Sternal, professor (1984), M.F.A., University of Montana
 Stephen Tirone, assistant professor (1982), M.F.A., University of Wisconsin

Department of Communications

Narain D. Batra, associate professor (1981), Ph.D., Gujarat University
 Michael Biel, associate professor (1978), Ph.D., Northwestern University

William David Brown, associate professor (1966), M.A., Louisiana State University
 George Burgess, assistant professor (1964), M.A., Morehead State University
 David Collins, instructor (1981), M.A., Marshall University
 Larry Dales, assistant professor (1974), M.A., Brigham Young University
 Richard Dandeneau, professor (1981), Ph.D., Southern Illinois University
 Dale Greer, instructor (1982), M.A., Morehead State University
 Harlan Hamm, associate professor (1965), M.A., Bowling Green State University
 Travis Lockhart, assistant professor (1982), Ph.D., University of Texas
 Phil Martin, instructor (1983), M.A., Ohio University
 Robert Paige, associate professor (1983), Ph.D., Southern Illinois University
 James E. Quisenberry, professor (1968), Ph.D., Ohio University
 Tom E. Scott III, assistant professor (1976), M.A., Morehead State University
 James T. Sellers, assistant professor (1984), Ph.D., University of Southern Mississippi
 Joyce E. Whiting, assistant professor (1975), M.A., Morehead State University
 Jack E. Wilson, professor (1967), Ph.D., Michigan State University
 Thomas L. Yancy, instructor (1977), M.A., Morehead State University

Department of Languages and Literature

Robert L. Burns, professor (1983), Ph.D., University of Louisville
 Glenna E. Campbell, associate professor (1966), M.A., Morehead State University
 Betty M. Clarke, assistant professor (1965), M.A., Morehead State University
 Barbara Dale Dillinger, assistant professor (1983), Ph.D., Indiana University
 G. Ronald Dobler, professor (1972), Ph.D., University of Iowa
 Marc D. Glasser, professor (1972), Ph.D., Indiana University
 Bernard G. Hamilton, assistant professor (1963), A.M., University of Mississippi
 Frances L. Helphinstine, professor (1966), Ph.D., Indiana University
 Joyce C. LeMaster, associate professor (1961), M.A., Morehead State University
 Ina M. Lowe, assistant professor (1970), M.A., Morehead State University
 George A. Mays, assistant professor (1969), M.H.E., Morehead State University
 Edward E. Morrow, assistant professor (1961), A.M., George Peabody College
 Mary M. Netherton, associate professor (1964), M.A., University of Kentucky
 Rose Orlich, professor (1970), Ph.D., Notre Dame University
 Essie C. Payne, assistant professor (1966), A.M., Auburn University
 Charles Pelfrey, professor (1962), Ph.D., University of Kentucky
 Betty H. Peters, assistant professor (1975), M.H.E., Morehead State University
 Glenn C. Rogers, professor (1967), Ph.D., University of North Carolina
 Judy Rogers, professor (1967), Ph.D., University of North Carolina
 M.K. Thomas, professor (1964), Ed.D., Tulsa University
 Victor A. Venetozzi, associate professor (1960), M.A., Morehead State University
 Eugene O. Young, associate professor (1984), Ph.D., University of Tennessee

Department of Music

David Anderson, assistant professor (1978), M.M., Indiana University
 Anne Beane, instructor (1978), M.M., Morehead State University
 James R. Beane, associate professor (1959), M.M., Louisiana State University
 William M. Bigham, professor (1965), Ph.D., Florida State University
 Harold Leo Blair, assistant professor (1975), M.F.A., Ohio University
 Suanne Blair, assistant professor (1969), M.M., University of Southern California
 James W. Bragg, associate professor (1963), M.M., New England Conservatory of Music
 R. Jay Flippin, associate professor (1969), M.M., Morehead State University
 E. Glenn Fulbright, professor (1960), Ph.D., Indiana University
 Christopher S. Gallaher, professor (1972), Ph.D., Indiana University
 JoAnne Keenan, instructor (1976), M.M., Morehead State University
 Larry W. Keenan, associate professor (1967), M.M., Indiana University
 Milford Kuhn, associate professor (1976), M.M., Miami University
 Earle L. Louder, professor (1968), D.M., Florida State University
 Edward Malterer, associate professor (1977), D.A., Ball State University
 Frederick A. Mueller, professor (1967), D.M., Florida State University
 Eugene C. Norden, assistant professor (1968), M.M., Morehead State University
 Frank Oddis, assistant professor (1977), M.M., East Carolina University
 Robert D. Pritchard II, assistant professor (1972), M.M., Duquesne University

Raymond Ross Jr., assistant professor (1978), M.M., North Texas State University
 John K. Stetler, associate professor (1959), M.M., Wichita State University
 Lucretia M. Stetler, assistant professor (1964), M.M., Morehead State University
 Vasil J. Venetozzi, associate professor (1966), M.M., Eastman School of Music

Department of Philosophy

Walter G. Emge, professor (1981), Ph.D., Yale University
 Betty R. Gurley, professor (1969), Ph.D., Southern Illinois University
 George M. Luckey, professor (1961), Ph.D., Southern Illinois University
 Franklin M. Mangrum, professor (1959), Ph.D., University of Chicago

Personal Development Institute

Carolyn Flatt, instructor (1971), M.A., Morehead State University

School of Sciences and Mathematics

Department of Biological and Environmental Sciences

David M. Brumagen, professor (1965), Ph.D., University of Kentucky
 Fred M. Busro, associate professor (1967), M.A., University of Virginia
 Gerald L. DeMoss, professor (1968), Ph.D., University of Tennessee
 Richard G. Eversole, assistant professor (1965), M.A., Morehead State University
 Jerry F. Howell Jr., professor (1972), Ph.D., University of Tennessee
 David T. Magrane, professor (1976), Ph.D., University of Arizona
 David L. McNeely, assistant professor, (1983), Ph.D., Oklahoma State University
 Leslie E. Meade, associate professor (1971), M.S., Morehead State University
 Ted Pass II, professor (1972), Ph.D., Virginia Polytechnic Institute and State University
 Madison E. Pryor, professor (1964), Ph.D., University of Tennessee
 David J. Saxon, professor (1967), Ph.D., Southern Illinois University
 Howard L. Setser, professor (1964), Ph.D., University of Kentucky

Clinical Faculty

Harry G. Browne, (1956), M.D., Cornell University Medical College
 Victor Y. Cabanas, (1966), M.D., Cebu City, Philippines
 Martha J. Cope, M.T. (ASCP) (1972), B.S., Murray State University
 LaVerne Floyd, (1972), M.A., Tennessee Technological University
 Astrid Force, M.T. (ASCP) (1979), M.Ed., University of Kentucky
 Marie M. Keeling, M.D. (Medical Director)
 Werner A. Laqueur, (1936), M.D., University of Hamburg
 Helen Layman, M.T. (ASCP) (1960), B.S., Spalding College
 Virginia L. McCormick, (1942), B.S., University of Illinois
 Kirit T. Patel, (1968), M.D., University of Baroda
 Helen Pater, M.T. (ASCP) (1962), B.A., Mt. St. Joseph College
 James Richard Roush, (1970), M.D., University of Indiana
 Henry T. Russell, (1972), Ph.D., Purdue University
 Marsha Starnes, (1972), B.S., Eastern Kentucky University
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Abbreviations (Course Prefixes)

ACCT	Accounting	MFT	Manufacturing Technology
AGR	Agriculture	MIN	Mining Technology
AHS	Allied Health Sciences	MKT	Marketing
ART	Art	MNGT	Management
BIOL	Biology	MS	Military Science
CHEM	Chemistry	MSCI	Marine Science
COMM	Communications	MUSC	Music Conducting
CON	Construction Technology	MUSE	Music Education
COR	Corrections	MUSG	Class Applied Music
DATA	Data Processing	MUSH	Music History & Literature
ECON	Economics	MUSM	Music Ensembles
EDAD	Education Administration	MUSP	Private Applied Music
EDAH	Adult and Higher Education	MUST	Music Theory
EDEC	Early Childhood Education	MUSW	Music Research
EDEL	Elementary Education	NUR	Nursing
EDF	Education Foundations	OADM	Office Administration
EDGC	Guidance and Counseling	PDI	Personal Development Institute
EDSE	Secondary Education	PHED	Physical Education
EDSP	Special Education	PHIL	Philosophy
EDUC	Professional Education	PHYS	Physics
EET	Electricity-Electronics Technology	PSY	Psychology
ENG	English	RAD	Radiologic Technology
FIN	Finance	RCL	Reclamation Technology
FNA	Fine Arts	REAL	Real Estate
FRN	French	REC	Recreation
GCT	Graphics Communications Technology	REL	Religion
GEO	Geography	ROB	Robotics
GEOS	Geoscience	R-TV	Radio-Television
GER	German	RUS	Russian
GOVT	Government and Public Affairs	SCI	Science
HEC	Home Economics	SOC	Sociology
HIS	History	SPA	Spanish
HLTH	Health	SPCH	Speech
IET	Industrial Education Technology	SWK	Social Work
JOUR	Journalism	THEA	Theatre
LAT	Latin	VET	Veterinary Technology
LSIM	Library Science and Instructional Media	VOC	Vocational Education
MATH	Mathematics	WEL	Welding Technology

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