

An aerial, black and white photograph of the Missouri Western State College campus. The image shows several large, rectangular academic buildings with flat roofs, interspersed with open spaces, parking lots, and a winding road. The campus is surrounded by trees and a fence line is visible in the background.

Catalog 1984 – 85

**MISSOURI
WESTERN
STATE COLLEGE**
Saint Joseph, Missouri

A decorative border consisting of numerous small, white silhouettes of horses in various poses, arranged in a grid-like pattern around the central text.

Materials within the Special Collections and Archives may contain images, language, or other content that could be offensive to modern users. The content may be disturbing and offensive, but should be viewed within the context of that period. The material is being presented as part of a historical record and in no way reflects the values of Missouri Western State University.

Academic Calendar

Fall Semester 1984

Plan Days Aug 16-17, Thr-Fri
Registration Aug 20-21, Mon-Tue
Classes begin Aug 22, Wed, 7am
Labor Day (holiday) Sep 3, Mon
Mid-term grades due Oct 16, Tue, 1:30pm
Student Activity Day Oct 19, Fri
Thanksgiving vacation
begins Nov 20, Tue, 10pm
Classes resume Nov 26, Mon, 7am
Classwork ends Dec 10, Mon, 10pm
Final exams begin Dec 11, Tue, 7am
Final exams end Dec 17, Mon, 10pm
Final grades due Dec 19, Wed, 1:30pm

Spring Semester 1985

Registration Jan 10-11, Thr-Fri
Classes begin Jan 14, Mon, 7am
Presidents' Day
(holiday) Feb 18, Mon
Mid-term grades due Mar 8, Fri, 1:30pm
Spring Recess Mar 18-22, Mon-Fri
Classes resume Mar 25, Mon, 7am
Classwork ends May 6, Mon, 10pm
Final exams begin May 7, Tue, 7am
Final exams end May 13, Mon, 10pm
Commencement May 14, Tue
Final grades due May 15, Wed, 1:30pm

Summer Session 1985

Registration Jun 3, Mon
Classes begin Jun 4, Tue, 7am
Holiday Jul 4, Thr
Classes End Jul 30, Tue, 10pm
Final grades due Jul 31, Wed, 4:30pm

Fall Semester 1985 (tentative)

Plan Days Aug 15-16, Thr-Fri
Registration Aug 19-20, Mon-Tue
Classes begin Aug 21, Wed, 7am
Labor Day (holiday) Sep 2, Mon
Student Activity Day Oct 11, Fri
Mid-term grades due Oct 16, Wed, 1:30pm
Thanksgiving vacation
begins Nov 27, Wed, 7am
Classes resume Dec 2, Mon, 7am
Classwork ends Dec 9, Mon, 10pm
Final exams begin Dec 10, Tue, 7am
Final exams end Dec 16, Mon, 10pm
Final grades due Dec 18, Wed, 1:30pm

Spring Session 1986 (tentative)

Registration Jan 9-10, Thr-Fri
Classes begin Jan 13, Mon, 7am
Presidents' Day
(holiday) Feb 17, Mon
Mid-term grades due Mar 7, Fri, 1:30pm
Spring Recess Mar 24-28, Mon-Fri
Classes resume Mar 31, Mon, 7am
Classwork ends May 5, Mon, 10pm
Final exams begin May 6, Tue, 4:30pm
Final exams end May 13, Tue, 4:30pm
Commencement May 14, Wed
Final grades due May 15, Thr, 1:30pm

Summer Session 1986 (tentative)

Registration May 30, Fri
Classes begin Jun 2, Mon, 7am
Holiday Jul 4, Fri
Classes end Jul 24, Thr, 10pm
Final grades due Jul 25, Fri, 4:30pm



Missouri Western State College

Catalog 1984-85

4525 Downs Drive
St. Joseph, Missouri 64507
Telephone (816) 271-4200

Contents

The College	7
Goals of the College	7
Academic Calendar	inside front cover
Campus Map	inside back cover
General Information	9
Admission	11
Registration	16
Financial Aid	18
Student Affairs	28
Academic Policies and Regulations	34
Requirements for Graduation	41
Degree Programs	42
Academic Programs	49
The Division of Career Programs	50
Department of Agriculture	51
Program in Automotive Technology	56
Department of Business and Economics	58
Department of Criminal Justice	68
Department of Engineering Technology	71
Program in Lawyers' Assistant	76
Department of Military Science	78
Department of Nursing	80
Program in Pilot Training	82
Program in Secretarial Science	83
General Electives	84

In keeping with the requirements of Title IX of the Education Amendments Act of 1972 in regard to sex discrimination and Section 504 of the Rehabilitation Act of 1973 in regard to handicap discrimination as well as other applicable federal and state laws and regulations, Missouri Western State College follows a policy of nondiscrimination in regard to all employment practices and to the awarding of student financial aid as well as to recruitment, admission, housing, placement, and retention of students. The Affirmative Action Officer is Judith Tryon, Title IX Coordinator is Kenneth Hawk, and Section 504 Coordinator is Robert Hines.

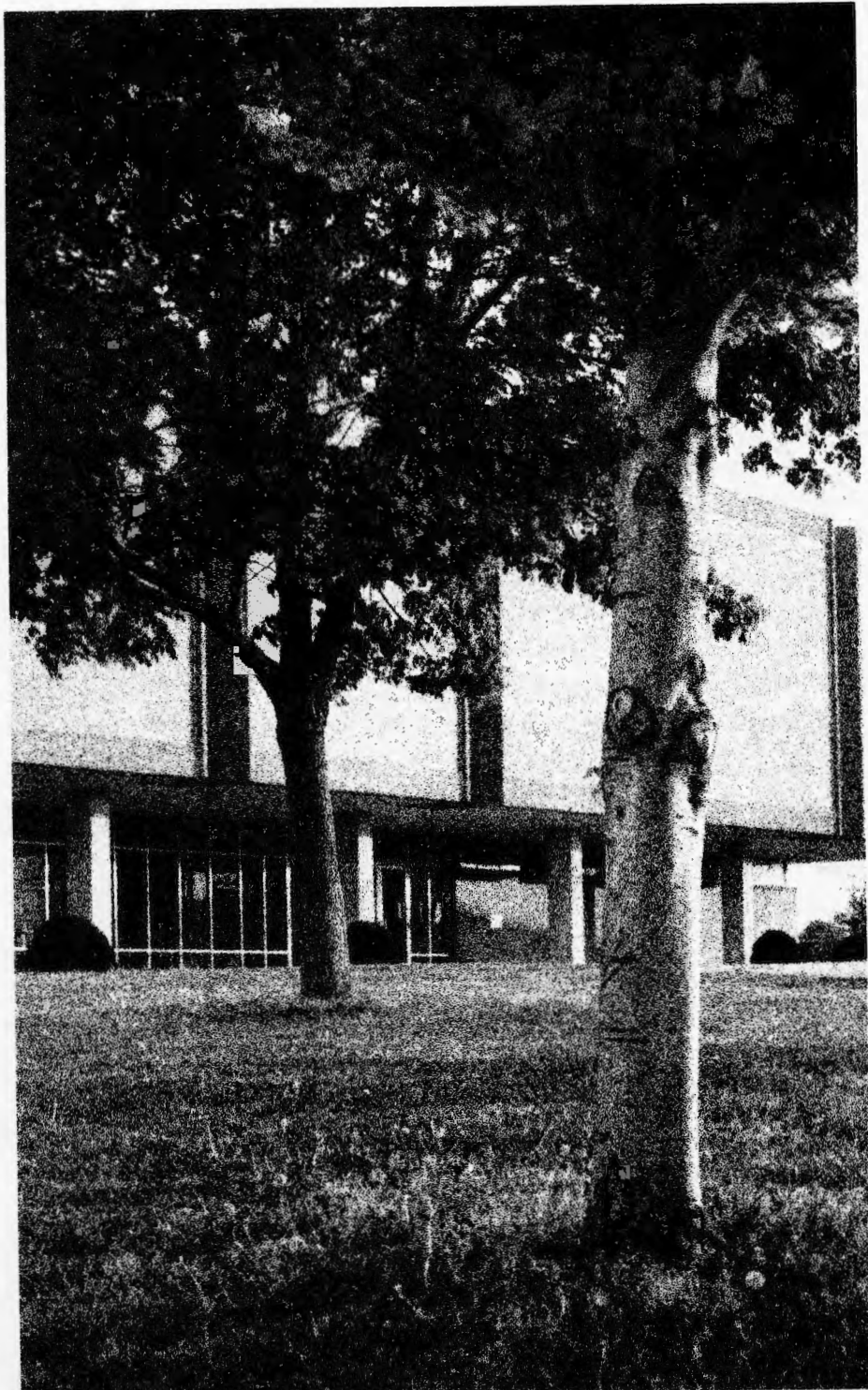
Contents

The Division of Education and Psychology	85
Department of Education	86
Elementary Education	88
Secondary Education	93
Department of Health, Physical Education, and Recreation	95
Department of Psychology	103
The Division of Liberal Arts and Sciences	107
Department of Art	108
Department of Biology	111
Department of Chemistry	115
Department of English and Modern Languages	119
Department of Mathematical Sciences	126
Department of Music	131
Department of Social Sciences	137
Department of Speech, Theatre, and Humanities	143
Women's Studies	148
Office of Continuing Education	149
Evening and Saturday Program	150
Summer Session	150
Appendices	151
Appendix A: Course Abbreviations	152
Appendix B: The Board of Regents	153
Appendix C: Administrative Staff	154
Appendix D: Faculty 1984-85	156
Index	164



COVER

Historic Saint Joseph was the jumping off point for the Pony Express. Missouri Western State College is proud of its association with and service to the Saint Joseph region. The beautiful modern campus glimmers in the setting sun.



Entrance to the Warren E. Hearnes Learning Resources Center

The College



Students install a painting for an exhibition.

The College

Missouri Western State College is a four-year, state-supported institution providing a blend of traditional liberal arts and newer career-oriented degree programs. MWSC is authorized under Missouri statute to offer one-year certificates, two-year associate degrees, and four-year baccalaureate programs. In addition, the college offers some three-year preprofessional transfer programs.

Accredited by both the Commission on Institutions of the North Central Association of Colleges and Secondary Schools and by the National Council for Accreditation of Teacher Education, Missouri Western State approaches its third decade with an enrollment of over 4,000 students, with over 150 faculty, and with contemporary instructional and recreational facilities complemented by a beautifully landscaped campus.

Established by act of the General Assembly in 1965, the college has its roots in the eighth oldest junior college in the nation. St. Joseph Junior College, when it was established in 1915, was a liberal arts institution for area students usually preparing to transfer to the state university or the regional teacher colleges.

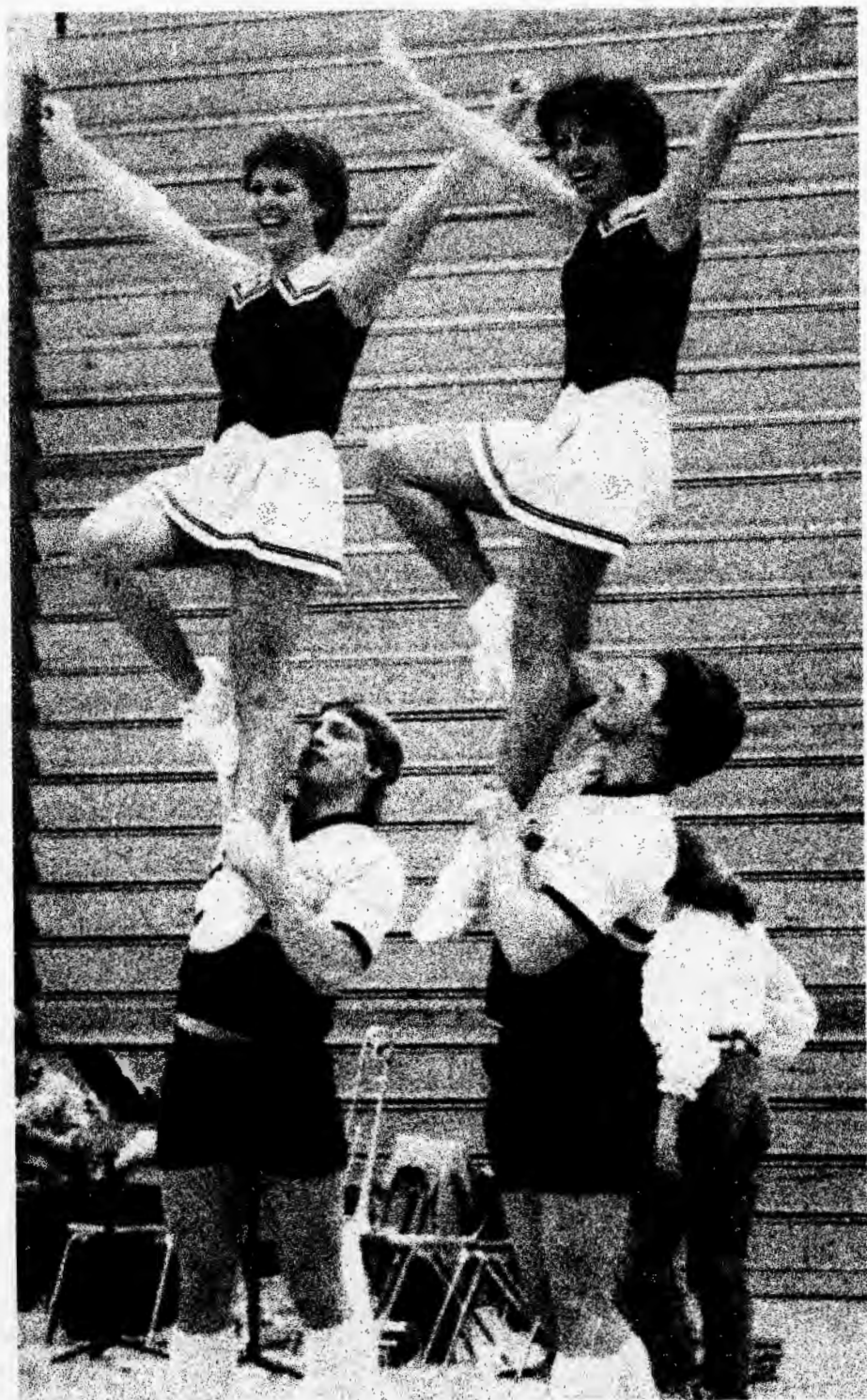
Today, Missouri Western State enjoys an expanding enrollment and the strong support of its local community. In the 1980's, Missouri Western State continues serving both the needs of its traditional students, who enter upon their graduation from high school, and of older students, who are seeking the opportunity to continue their education or develop their talents.

This mix in the student body — of persons with experience in the world of work and young men and women entering directly from high school — provides an exciting and dynamic learning environment. It affords all Missouri Western State students the opportunity to learn from one another. It brings life to the classroom and challenge to our faculty. Above all, it provides the student with a special experience intended to expand horizons and provide rich career opportunities.

Goals of the College

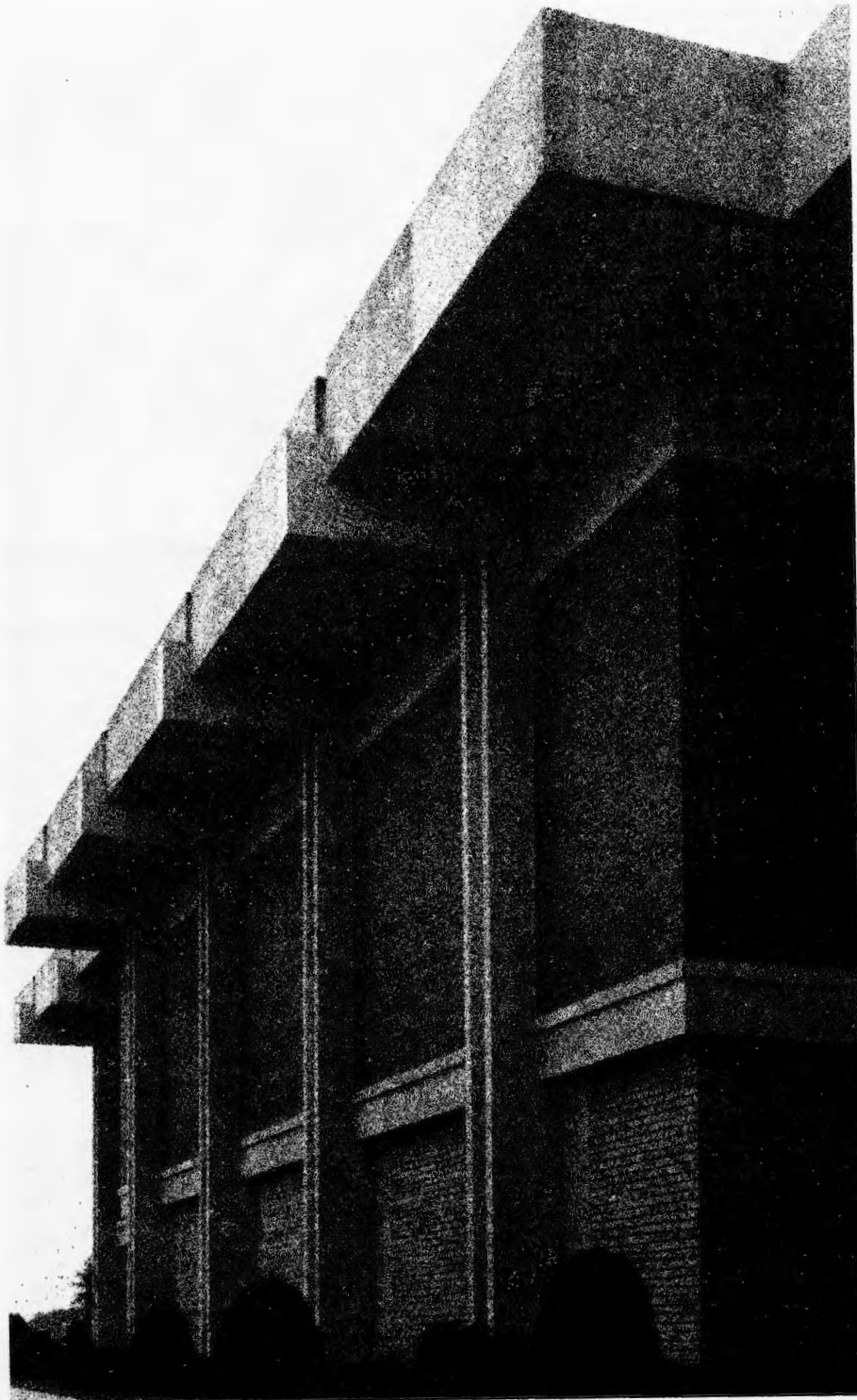
Aware of its obligations to the state, to the student as a person and a seeker of knowledge, and to itself as an academic community committed to the increase of knowledge, Missouri Western State College, through its Board of Regents, has the following goals:

1. To provide educational opportunities suited to varying needs by developing:
 - Bachelor-degree programs in selected fields of the arts and sciences, education, technology, and business administration;
 - One-year certificates and two-year associate degree programs in selected vocational and technical fields;
 - Preprofessional and transfer programs in designated fields; general education components in all degree and certificate programs;
 - Continuing and adult education courses, workshops, seminars, and programs suited to the capabilities of the college and the needs of the community.
2. To provide an appropriate learning environment through the development of proper facilities and a strong faculty, and by supplying necessary auxiliary services and recreational and cultural opportunities.
3. To promote, within limits defined by the prior claim of regularly enrolled students, the welfare of the community, not only through work in continuing education, but also through cultural and recreational opportunities and appropriate services.



Spirit for athletics

General Information



Admission

Missouri Western State College serves the student who is a graduate of a high school accredited by the appropriate state agency, or holds an equivalency certificate awarded upon successful completion of the General Education Development Test (GED) or is an academically talented high school senior at an accredited high school. Missouri high school graduates, as well as those from other states, are admitted under the same guidelines. A student desiring to take credit courses must first be admitted to one of the following categories:

1. **First Time In College** — a student seeking a degree who has not previously attended any college or university.
2. **College Transfer** — A student transferring from another college or university or transferring from the **Special Student** category.
3. **Special Student** — a student who is not seeking a degree but satisfies the general admission criteria stated under **Admission** above.

First Time In College

To be admitted in this category, the applicant must provide:

1. A \$10 nonrefundable application fee,
2. An application for admission form,
3. Results of the American College Test (ACT), and
4. A high school transcript documenting graduation, or a high school transcript with seven semesters of work and confirmation of high school graduation, or a GED equivalency certificate.
5. The foreign student must contact the Registrar's office for additional admission criteria which includes a minimum score of 500 on the Test of English as a Foreign Language (TOEFL). The deadline for admissions materials from foreign students is forty-five days prior to the first day of classes.

College Transfer

To be admitted to this category, the applicant must provide:

1. A \$10 nonrefundable application fee,
2. An application for admission form
3. An official transcript from each college and university attended.
4. The foreign student must contact the Registrar's office for information regarding additional admission requirements. The deadline for admission materials for foreign students is forty-five days prior to the first day of classes.
5. Transfer students who hold an Associate of arts degree from an accredited Missouri public institution are considered to have satisfactorily completed MWSC's general studies requirements, and will be admitted at the junior-year level.

For the bachelor's degree a minimum of 60 semester hours of senior college credit must be included within the 124 semester hour credit requirement. At least 30 of the last 45 credits (exclusive of credit by examination) must be earned at MWSC. A minimum of nine resident credits must be in the major field. Education majors must also include student teaching in the residence requirement.

For the associate degree the last 15 credits (exclusive of credit by examination) must be earned from MWSC. A minimum of six resident credits must be in the major field.

Special Student

This category is for the student who is not seeking a degree at MWSC. The student must have graduated from a high school accredited by the appropriate state agency or have successfully completed the GED or have demonstrated academic capability and be a high school senior at an accredited high school. A student under suspension is not allowed to be admitted under this category.

To be admitted in this category, the applicant must provide:

1. A \$10 nonrefundable application fee,
2. An application for admission form
3. — Self enrichment student must provide proof of high school graduation or a college transcript (if appropriate)
 - Visiting high school student must provide certification from high school principal
 - Visiting college student must provide letter of *good standing* from parent institution.

Those who enroll as special students and later decide to seek a degree must reapply for admission under the appropriate admissions category. Consult the Registrar's office for more information. Nontraditional credit, credit by examination and transfer credit will not be entered on the permanent record of a special student until he or she reapplies as a degree-seeking student and has met all admission requirements under the *College Transfer* category.

Nontraditional Credit

Missouri Western State College may accept a total of 30 hours of work (maximum applicable to a degree) obtained through nontraditional credit or credit by examination.

Credit earned through the United States Armed Forces Institute (USAFI) in accordance with the recommendation of the Commission on Accreditation of Service Experiences of the American Council on Education, extension work from regionally accredited institutions of higher education, and correspondence work from regionally accredited institutions of higher education are generally recognized if documented by written records from the U.S. government and institutions of higher education.

Credit by Examination

If travel, employment, extensive reading, or other unique educational experience appears to have given proficiency in courses required in the curriculum equivalent to that ordinarily attained by the traditional classroom manner, the applicant may be granted permission to attempt college credit through examination. College credit by examination is available for most courses required in general education and in some courses required by majors.

Credit for general studies courses may be obtained by taking the College-Level Examination Program (CLEP) General Examinations. Credit for major field courses may be obtained by taking a CLEP Subject Matter Examination or a comprehensive test designed by the department. The department determines which courses are appropriate for credit by examination and the test instrument to be used.

If the applicant should take subject exams which are not normally employed for the test-out program, the result will be reviewed by the appropriate department, and credit may or may not be awarded.

Applicants are eligible to receive credit by examination only if they

- have applied for admission to MWSC and paid the application fee,
- have earned traditional college credit at MWSC before credit by examination is awarded,

- are not enrolled in a course for which an examination is requested,
- are granted written permission by the director of counseling and testing before taking the exam (unless it is the CLEP General for a first-time college student).

If the student is a transfer, he or she must have complete transcripts of previous college credit in the Registrar's office before written permission for the test-out will be granted. Students are ineligible to take a test for credit by examination if the credit they would earn on that test makes them eligible for graduation at the end of that semester.

Students are not eligible to receive credit by examination if they have:

- earned prior credit in the course,
- audited the course,
- attempted the course and received a grade assessment of W or F, or taken a college course or courses which contain the same basic material.

Normally, students request credit by examination early in their college career to avoid ineligibility at a later date. Transfer students must earn a minimum of 30 credit hours of resident credit excluding any credit by examination.

The CLEP General Examinations are administered through the Office of Counseling and Testing on the Missouri Western State College campus. In addition to this on-campus test site, the CLEP is administered at various locations throughout the nation. Applications should be completed and returned to the Office of Counseling and Testing four weeks prior to the test dates (for a list of dates and fee information, write to the Office of Counseling and Testing, MWSC, SS/C 112).

A minimum of a 500 scaled score must be attained on the CLEP General Examinations for the student to receive credit, except in English which requires a 600 scaled score. High school seniors should take the CLEP General Examinations before the end of April. The table on page 14 lists the five CLEP General Examination areas and indicates how credit earned is awarded in the general studies program at Missouri Western State College.

Credit by examination also may be received in specific subjects. A list of courses for which subject tests are available may be obtained from the Office of Counseling and Testing. Successful performance on a subject test is determined by the academic department which administers the course.

Applications for subject examinations may be acquired from the Office of Counseling and Testing. The test dates are:

- November 3, 1984 (application deadline October 5, 1984)
- April 13, 1985 (application deadline March 15, 1985)
- June 8, 1985 (application deadline May 10, 1985)

CLEP Subject Examinations are accepted by some departments. For many courses, however, they are not available or may be considered inappropriate. In such cases, a college examination is used. Students should contact the Office of Counseling and Testing before taking a CLEP subject examination to determine whether or not that particular examination is acceptable for obtaining credit.

Permission to take examinations for credit at times other than the regularly scheduled test dates will be granted only in exceptional cases. Such requests should be directed to the Office of Counseling and Testing.

- The department chairperson will decide whether or not the petition is justified and may ask for verification.
- If the circumstances warrant it, the department may set up a special test time.

The two types of subject examinations are:

- Single-level subject-matter tests: The student is required to take a separate test for each course for which he or she desires to obtain credit. For additional information, the student should contact the Office of Counseling and Testing.

- Multilevel subject-matter tests: In the case of sequence courses, an academic department may offer a single test to determine proficiency in the skills and knowledge demanded by the courses in that sequence. The student will be given credit for each course in the sequence for which he or she demonstrates the minimum standards of proficiency as designated by the academic department.

CLEP General Tests and Credit Hours

<i>Credits</i>	<i>Credits</i>
English	
<i>General studies requirement met</i>	
ENG 100 and	3
ENG 104	3
Humanities	
<i>Subscores</i>	
High in Fine Arts	
<i>General studies requirement met</i>	
Groups 1 and 3 in Humanities	6
<i>Subscores</i>	
Relatively equal subscores	
<i>General studies requirement met</i>	
Groups 2 and 3 in Humanities	6
<i>Subscores</i>	
High in Literature, Low in Fine Arts	
<i>General studies requirement met</i>	
Groups 1 and 2 in Humanities	6
Mathematics	
<i>General studies requirement met</i>	
MAT 101 and	3
MAT 105	3
Natural Science	
<i>Subscores</i>	
Higher in Biological, lower in Physical	
<i>General studies requirement met</i>	
BIO 101	6
<i>Subscores</i>	
Lower in Biological, higher in Physical	
<i>General studies requirement met</i>	
One of the following:	
CHE 101 or	6
PHY 101	6
Social Science and History	
<i>General studies requirement met</i>	
Groups 1 and 2 of	
Social Science and History	6

If the student should decide not to take a test after the petition for test-out has been processed, a refund request may be initiated in the Office of Counseling and Testing. However, \$5 of the original fee paid will be retained for processing.

ACT Test Schedule 1984-85

<i>Test dates</i>	<i>Registration deadlines</i>
October 27, 1984	September 28, 1984
December 8, 1984	November 9, 1984
February 9, 1985	January 11, 1985
April 20, 1985	March 22, 1985
June 8, 1985	May 10, 1985

English Honors

Entering students who score 24 or above on the English section of the American College Test (ACT) are ordinarily placed in ENG 112, Honors Composition and Rhetoric, and upon its successful completion are also awarded 3 hours' credit in ENG 104, Composition and Rhetoric. This process fulfills the college's written composition requirements in general studies. The English major who successfully completes this program enters ENG 224, Advanced Composition and Literature, a course required of all English majors.

Nonresident Credit

Transfer, test-out, and extension credit may be evaluated and recorded on a transcript only during the time a student is enrolled at Missouri Western State College, except when special arrangements have been made with the academic vice president, division dean, or department chairperson and a copy of the agreement is on file in the Registrar's Office.

Registration

Missouri Western State College complies with the Family Educational Rights and Privacy Act of 1974.

Residence

It is the student's responsibility to register under the proper residence and pay proper fees. Petition forms and rules of residency are available in the Registrar's Office. A student requesting a change of residency classification for fee purposes must submit a petition to the Registrar's office two weeks prior to the term for which it is being made. Students filing such a petition will be required to furnish evidence in support of the claim.

Schedule of 1984-85 Fees

(Subject to change without notice)

Fees include a Student Government Association fee of \$10 for full-time students and \$5 plus 50¢ per credit hour for part-time students.

Fall and Spring Semesters

State Residents		Nonresidents	
No. of credit hours	Fees	No. of credit hours	Fees
1	\$ 55	1	\$101
2	105	2	197
3	155	3	293
4	205	4	389
5	255	5	485
6	305	6	581
7	355	7	677
8	405	8	773
9 or more	440	9 or more	835

Other Fees

(Subject to change without notice)

Application fee (nonrefundable)	\$ 10
New student registration/orientation fee	5
Applied music fee (per credit hour)	20
Audit fee	same as regular fee
College credit by examination (single-level, per test)	28
College credit by examination (multilevel, per sequence)	38
Dormitory fee (room and board, per semester, double room, 20 meals)	783
Broadmoor apartment (per semester, room and 20 meals)	998
Dormitory security deposit (subject to refund)	50
Graduation fee (all candidates)	15

Laboratory materials and/or breakage	cost
Physical education facility fee	4
Transcript fee	1

Payment of Fees

Fees are payable at registration, and registration will not be considered complete unless all have been paid.

Refund of Fees

Refunds are given only if the student drops out of college entirely; no refund is given if the student drops individual classes or makes schedule changes that result in a reduced semester-hour class load.

Refunds

	Percent of fee
<i>Fall and spring semester DAY students</i>	
Withdrawal during first week of classes	80
Withdrawal during third week of classes	50
Withdrawal after third week of classes	no refund
<i>Fall and spring semester NIGHT students</i>	
Withdrawal before meeting of second class	80
Withdrawal before meeting of fourth class	50
Withdrawal after meeting of fourth class	no refund
<i>Summer DAY students</i>	
Withdrawal during first week of classes	80
Withdrawal during second week of classes	50
Withdrawal after second week of classes	no refund
<i>Summer NIGHT students</i>	
Withdrawal before meeting of second class	80
Withdrawal before meeting of third class	50
Withdrawal after meeting of third class	no refund

Veterans

Missouri Western State College is approved for training veterans and eligible persons. Students who have completed a minimum of one year of active military service may be granted 4 hours of physical education credit and 2 hours of hygiene credit. The general education credit will be granted upon presentation of the DD214 or NGB55 form to the Office of the Registrar.

Veterans application forms and general information are available in the Office of Veterans Affairs.

Financial Aid

The college's financial aid program is designed to assist those students who would not otherwise be able to attend Missouri Western State College. Scholarships, fee waivers, or other forms of financial aid are not applicable to courses numbered under 100 or to courses taken without regular college credit. Federal financial aid is awarded on the basis of evidence of financial need. The college requires all applicants to submit the American College Test (ACT) Program's Family Financial Statement. This statement provides the college with the information needed to determine to what extent financial assistance might be needed.

Students are expected to assist by using previous savings, earnings from summer employment, and, if it should be necessary, a part-time job in conjunction with other financial aid at Missouri Western State. Parents are expected to contribute funds from their income and assets. The amount expected from parents is the difference between the student's total expenses and the amount of anticipated student earnings and financial aid.

Application Procedure

- The student should obtain ACT's Family Financial Statement and Missouri Data forms from his or her high school guidance office or from the MWSC Office of Financial Aid. These forms are made available January 1 of each year.
- The forms must be completed and mailed to ACT as per instructions provided on the forms. This should be done by March 1 to ensure that the April 1 deadline is met.
- ACT will forward the required information to the college and other agencies as instructed on the forms. This process takes approximately four weeks.
- On or before April 1 of each year, the student should complete the federal financial aid process by submitting to the MWSC Office of Financial Aid copies of state and federal 1040 or 1040A tax forms (including W-2 forms) used to complete the ACT forms.

This procedure should be started in the early spring before the school year for which financial aid is needed. Four weeks should be allowed for processing. Returning students must complete the process each year to be eligible for aid.

The institution budgets used to calculate the educational cost of Missouri Western State College for the current school year are given below.

Estimated Cost for Two Semesters

Based on estimated current tuition, fees, room, and board

Missouri Residents

	<i>on-campus residence hall</i>	<i>off-campus housing</i>	<i>living at home</i>	<i>college-leased Broadmoor Apt.</i>
Tuition and fees	\$ 880	\$ 880	\$ 880	\$ 880
Room and board	1,660	1,600	1,100	2,000
Books and supplies	280	280	280	280
Travel	400	600	400	600
Personal	400	400	400	400
Miscellaneous	400	400	400	400
Total	\$4,020	\$4,160	\$3,460	\$4,560

Nonresidents

	<i>on-campus residence hall</i>	<i>off-campus housing</i>	<i>living at home</i>	<i>college-leased Broadmoor Apt.</i>
Tuition and fees	\$1,670	\$1,670	\$1,670	\$1,670
Room and board	1,660	1,600	1,100	2,000
Books and supplies	280	280	280	280
Travel	400	600	400	600
Personal	400	400	400	400
Miscellaneous	400	400	400	400
Total	\$4,810	\$4,950	\$4,250	\$5,350

Awarding of Financial Aid

April 1 of each year is the deadline date when the completed application must be in the Office of Financial Aid at Missouri Western State College. At that time applications are considered, awards made, and the student notified. Applications will be accepted after April 1, but chances of receiving financial assistance will be much less since most institutionally awarded aid will have already been disbursed.

A financial aid application is considered complete when the Office of Financial Aid has received the following:

1. ACT analysis
2. Missouri Student Data Sheet
3. Copy of appropriate tax returns:
 - a. Federal (1040 or 1040A) including W-2 forms
 - b. State(s)
 - c. Local (if applicable)

In packaging financial aid, the Office of Financial Aid considers (1) grants, (2) work-study, and (3) loans (in that order). The office tries to meet each student's needs without the use of loans whenever possible. Since the amount of aid awarded is a reflection of the financial position of the student's family, it is regarded as confidential. The amount awarded is determined on the basis of need, and any additional prizes or awards received from outside agencies must be reported to the Office of Financial Aid.

Financial aid is packaged for the academic year. Aid is therefore distributed in equal amounts at the beginning of each semester unless otherwise indicated.

Student Aid Programs

Federal

Pell Grant (Basic Educational Opportunity Grant): The Pell Grant (Basic Grant) program is the government's largest student aid program, and is the starting point for most students seeking financial aid. Awards range from \$120 to \$1,670. The actual amount the student receives depends on the financial information reported on the application.

Supplemental Education Opportunity Grant (SEOG): These grants are awarded on the basis of need and may range up to \$2,000 depending on need and availability of funds.

College Work-Study Program: A student may be employed part time while attending college. Prospective students who qualify under the guidelines of the College Work-Study Program may be employed in the summer months preceding the academic year. The number of hours of employment per week is determined by the financial need of each qualified student, academic schedule, and amount of other assistance. Eligibility is determined by the Family Financial Statement. Work-study funds are usually divided equally throughout the year. To receive these funds, a student must work

the hours allowed each month. Time sheets are submitted monthly, and the student will be paid at least minimum wage for hours worked that month.

National Direct Student Loan (NDSL): The NDSL is a low-interest (5 percent) long-term loan program from which eligible students may be granted substantial loans to supplement other income for educational purposes. The federal NDSL award is made possible by a matching grant from the MWSC Foundation.

Guaranteed Student Loan (GSL): GSL is a low-interest (7 or 9 percent) long-term loan made to the student by a lender such as a bank, credit union, or savings and loan association. Need must be established for the student to be eligible to receive this loan.

PLUS Loans (Parent Loans): PLUS loans are meant to provide additional funds for educational expenses. The interest rate for these loans is 14 percent; the loans are made by a lender such as a bank, credit union, or savings and loan association.

State

Missouri Student Grant Program: The Missouri Student Grant Program is a financial assistance program enabling qualified full-time students to receive educational services in a public or private institution of higher education of their choice. The grant will not exceed one-half of tuition and fees. The deadline for filing for this grant is April 30.

College

Institutional Loans: The college has various student loan funds available to enrolled and prospective students. These funds are used to loan worthy and needy individuals the money necessary for tuition, fees, and books, not to exceed \$300. The interest charge for the use of these funds is minimal. Liberal repayment schedules are available; however, the loan is a short-term emergency loan and must be paid back the same semester. Students should contact the Office of Financial Aid for further information.

Part-Time Employment: Each year there are opportunities for students to find part-time employment on the campus or in the community. Information concerning job opportunities may be secured from the office of part-time job location and development.

Academic Fee Waivers

Academic Scholarship: Awarded by MWSC annually to all Missouri students who rank in the top 33 percent of their Missouri high school graduating class, the academic scholarship is restricted to full-time students entering college for the first time. This award must be used in the student's first two regular semesters (excluding summer session) of full-time attendance (semesters need not be consecutive). The student must maintain a 3.0 GPA or better each semester to remain eligible. The scholarship is for \$100 each semester.

Community College Scholarship: Awarded by MWSC annually to Missouri students who have completed 57 hours at a junior or community college with a cumulative grade-point average of 3.0 or above, the award is restricted to full-time students entering MWSC for the first time, and must be used in the student's first four regular semesters (excluding summer sessions) of full-time attendance (semesters need not be consecutive). The student must maintain a 3.0 GPA or better each semester to remain eligible. The scholarship is for \$130 each semester.

G.E.D. Award: Awarded by MWSC annually to all Missouri residents who score 265 points or higher on the General Education Development Test, the G.E.D. Award is restricted to full-time students entering college for the first time. This award must be used in the student's first eight regular semesters (excluding summer sessions) of full-time attendance (semesters need not be consecutive). The student must maintain a 3.0 GPA or better each semester to remain eligible. The award is for \$130 per semester.

President's Academic Scholarship: This scholarship is awarded to the top twenty first-time entering students who are ranked in the upper 10 percent of their high school graduating class and who have scored a composite of 23 or above on their ACT test. The scholarship is a \$340-per-semester

waiver of fees and is automatically retained with a 3.5 GPA or better each semester.

Regents Scholarship: Awarded by MWSC annually to all Missouri students who rank in the top 20 percent of their Missouri high school graduating class, the Regents Scholarship is restricted to full-time students entering college for the first time. This award must be used in the student's first eight regular semesters (excluding summer session) of full-time attendance (semesters need not be consecutive). The student must maintain a 3.0 GPA or better each semester to remain eligible. The scholarship is for \$130 per semester.

Academic Fee Waiver Terms

- The college reserves the right to limit the number of fee waiver scholarships awarded each year by scholarship categories.
- Applications for new or renewable fee waiver scholarships must be made annually to the college by May 1 and written acceptance of the scholarship received by July 1.
- Students who apply for a fee waiver scholarship will be notified of the status of the scholarship by June 15.
- Fee waiver scholarships are awarded only to students carrying 12 or more semester hours each semester.
- Students must have made application for admission to MWSC to receive a scholarship.
- Fee waiver scholarships are valid for eight semesters provided all requirements are met each semester. The eight semesters must be completed within six years of the date of matriculation.
- When qualified applicants exceed the number of fee waiver scholarships to be awarded, the application date will be the determining factor.

Departmental Fee Waivers

Art Department: Tuition waivers are awarded by the Department of Art on the basis of scholastic merit and financial need. Students are required to submit a formal application and a portfolio of their recent artwork for consideration by the faculty. To be eligible, the student must be a declared art major having previously filed a major-minor form. Tuition waivers are renewable but the student must reapply by submitting an application and portfolio.

Band

Marching Band: Fee waivers are available for students participating in Marching Band. Students must successfully complete 12 credit hours with a 2.0 GPA for the waiver to be renewed.

Special Performance: Special performance waivers are granted to band students based upon auditions and musical skills. Incoming freshmen and transfer students must have a GPA of at least 2.5. Students applying for renewal must have successfully completed 12 credit hours the previous semester with a GPA of 2.5.

Banking and Finance: Missouri Western State College offers fee waiver scholarships to eligible nonresident students from Kansas and Nebraska enrolled in courses leading to a major in banking and finance. To be eligible, a student must be a full-time employee of a banking institution and a member of the American Institute of Banking. The scholarship will include a waiver of the difference between in-state and out-of-state tuition and may be used only during the semester when the individual is enrolled in at least one of the following courses: BAN 250, 251, 252, 253. An official of the banking institution in which a prospective student is employed should write a letter of nomination to the director of financial aid no later than ten days prior to class registration. The scholarship must be renewed each semester with a letter of nomination.

Business Education: Fee waivers are awarded to first-place winners and ties for the eleven divisions in the Northwest Business Education Contest. These waivers are for one semester and are not renewable.

Business and Economics Department: Fee waivers are awarded to upper-level business students for the coordination of laboratories for ECO 260, ECO 261, ACC 230, and ACC 261. Students will be selected based upon their knowledge of the required subjects and for their desire to aid others.

Cheerleaders: Fee waivers are awarded to students selected to serve as cheerleaders for Missouri Western State College.

Chemistry Department: Fee waivers are awarded to the three division winners in the Chemathon. The waivers are for one semester and are not renewable.

English Department

Outstanding sophomore: One fee waiver is awarded to the sophomore student with the best record in English. The selection will be made by the Awards Committee of the Department of English and Modern Languages.

Paraprofessional assistants: Fee waivers are awarded to students working as paraprofessional assistants in foreign language laboratories for French, Spanish, and German classes. Students will be selected based upon their fluency in the required languages and ability to work with other students. Major duties will include working individually and in small groups with students having difficulty with French, German, or Spanish pronunciation and grammar; assisting students working independently in the language laboratory; preparing and maintaining tapes and other laboratory materials; stimulating student interest in French, German, and Spanish.

Griffon News: Fee waivers are awarded to students for assistance in publishing the *Griffon News*. Students will be selected based upon financial need and past performance on the paper.

Griffon yearbook: Fee waivers are awarded to students for assistance in publishing the *Griffon* yearbook. Students will be selected based upon financial need, scholastic ability, and assistance on the yearbook.

Intramural: Fee waivers are awarded to students for assisting in the operation of the college's intramural program. Students will be selected based upon previous intramural and recreational experience, previous leadership position, ability to relate to philosophy of intramural programs and participants, and recommendations from references.

Learning Skills Center: Fee waivers are awarded to students for assistance in operating programs in the Learning Skills Center. Students will be selected based upon academic standing, personality, ability to relate well to peers, and ability to learn the task of coordinating and distributing materials, tests, and audiovisual equipment.

Military Science Department: Eight fee waivers are available each semester for newly enrolled students. The waiver is for one semester with possible renewal for one additional semester upon recommendation of the ROTC staff. Four fee waivers are available each semester for sophomore students. The waiver is for one semester with possible renewal for one additional semester upon recommendation of the ROTC staff. Selection for these waivers depends upon enrollment in military science courses.

Summer session: Waivers of all fees will be awarded to students enrolling for ROTC Summer Camp credit only. In-state fees will be charged all out-of-state students taking ROTC courses during the summer session.

Missouri National Guard: Fee waivers are awarded to Missouri National Guard members attending MWSC. Selection criteria include ACT score of 18, letter of approval from the company commander, and maintenance of a 2.3 cumulative GPA.

Music Department: Fee waivers are awarded to music students for solo performance, ensemble performance, or accompanying. There are minimum audition requirements for each category. Incoming freshmen and transfer students must have a minimum GPA of 2.5. Students applying for a renewal of the waiver must have successfully completed 12 credit hours with a GPA of 2.5.

MWSC Dance Company: Fee waivers are awarded to students participating in the MWSC Dance Company. Six waivers are given to newly enrolled students during the current academic year; two waivers are given to currently enrolled students.

Speech, Theatre, and Humanities Department: Fee waivers are awarded to students participating in forensics or drama production. Forensic waivers require active participation in the MWSC forensic program (competition in forensics tournaments, work at MWSC forensics tournament, and judging at high school tournaments as suggested). Drama waivers include a stipulation to work at least 36 hours on one production during the semester. All waivers require a 2.0 GPA during the student's freshman year and a 2.5 GPA thereafter.

Departmental President's Academic Scholarship: Each department has one President's Academic Scholarship to award annually. The student must rank in the upper 10 percent of his or her high school graduating class and have scored a composite of 23 or above on the ACT test. The award is a \$340-per-semester waiver of fees and is automatically retained with a 3.5 GPA or better each semester.

Departmental Fee Waiver Terms

Departmental fee waivers are not available for summer sessions unless a major production is scheduled. They do not cover special fees (music lessons, physical education, or laboratory fees). They may be awarded to an out-of-state student with the approval of the departmental chairperson. Students must be enrolled for at least 12 hours to qualify.

Departmental Scholarships

Agriculture Scholarships: Applications for these scholarships are obtained through the Department of Agriculture.

Outstanding Freshman Award: Production Credit Association has given a scholarship of \$200 to be awarded to a freshman student majoring in agriculture. The recipient, selected by the Agriculture Scholarship Committee, must be an outstanding freshman. This scholarship will be awarded to a student upon completion of the first year in the agriculture department who shows financial need and academic excellence.

Outstanding Sophomore Award: Hall Implement Company has given a scholarship of \$200 to be awarded to a sophomore student majoring in agriculture. The recipient, selected by the Agriculture Scholarship Committee, must be an outstanding sophomore. This scholarship will be awarded to a student upon completion of the sophomore year in agriculture who has demonstrated leadership abilities, academic excellence, and financial need.

Outstanding Junior Award: Ed Lawrence, Jr., has given a scholarship of \$200 to be awarded to a junior majoring in agriculture. The recipient, selected by the Agriculture Scholarship Committee, must be an outstanding junior. This scholarship will be awarded to a student upon completion of the junior year who has demonstrated leadership abilities, academic excellence, and financial need.

American National Bank Scholarship: The American National Bank in St. Joseph has given \$400 to make one or two scholarships available for students majoring in agriculture. The recipients shall demonstrate leadership ability, academic excellence, and financial need.

Buchanan County Soil and Water Conservation Scholarship: This scholarship of \$200 is to be given to a junior student with a 2.75 cumulative GPA or a senior student with a 3.0 cumulative GPA, majoring in agriculture and interested in pursuing a career in the general area of soil and water conservation. The recipient must be a full-time resident of Buchanan County.

St. Joseph Stockyards Award: This award is made to a student selected by the Agriculture Scholarship Committee. The student must be an agriculture student majoring in animal science; other criteria are determined by the committee.

Veterinary Medical Center Award: This award is presented to a student selected by the Agriculture Scholarship Committee. The student should be a declared animal science major who has shown financial need and academic excellence.

Army ROTC Scholarship: One-, two-, three-, and four-year scholarships are awarded each year to selected students who are enrolled or will enroll in the Army ROTC Program. The scholarships provide payment of all tuition, fees, textbooks, and a monthly tax-free stipend of \$100 for the duration of the scholarship, not to exceed ten months for each year of the scholarship.

ROTC Subsistence: Students enrolled in the junior and senior military science courses automatically receive a tax-free stipend of \$100 per month for the duration of each school year, not to exceed ten months per year.

Athletic Scholarships: The governing board has agreed to give a number of athletic scholarships to students who plan to participate in athletics. These athletic scholarships are awarded at the recommendation of the director of athletics and with the approval of the Scholarship Committee. The scholarship is a waiver of all or part of fees incurred.

Biology

The Mike Sonnenmoser Biology Scholarship: An endowment has been established by the family of Mike Sonnenmoser. The endowment will fund a \$250 per semester scholarship to be awarded annually to a freshman student declaring biology as a major.

The scholarship is renewable for eight semesters upon maintaining a 3.0 GPA (both cumulative and in the major).

The student should rank in the upper 10% of their high school graduating class and have scored an ACT composite of 22 or above.

Applications may be obtained through the Biology Department and must be returned by May 1. The recipient will be named by a Departmental Selection Committee.

Business and Economics Scholarships

Academic Excellence Scholarship: Business and economics majors who have accumulated 75 hours, 21 of which are in business and economics with at least 12 of the 21 hours completed at Missouri Western, and who have a minimum GPA of 3.0 with a 3.5 GPA in business and economics courses, are eligible to apply for this \$200-a-year scholarship. Applications may be obtained through the Department of Business and Economics between February 1 and March 15.

Northwest Chapter of Missouri Society of Certified Public Accountants Scholarship: Students who have good academic skills, show some financial need, are presently in the junior year and will be a senior the following fall, possess leadership qualities, and are enrolled in a four-year accounting program are eligible for this scholarship, to be presented each spring semester. Applications are available from the Department of Business and Economics, and must be filed no later than December.

Frank H. Gee Chemistry Scholarship: A \$320 scholarship has been established by Frank H. Gee to be awarded to a freshman student in the field of chemistry. The student must maintain a GPA of 3.0 the first semester to remain eligible to receive the full scholarship. The recipient will be named by a department selection committee.

Willis H. McCann Scholarship: This scholarship is awarded to a first- or second-semester senior majoring in psychology who has and maintains a 3.0 GPA, both cumulative and in the major. The award will be made on the basis of financial need and vocational aspirations. Applications should be made to the Department of Psychology by April 1.

Philips Roxane, Inc., Scholarship: This award was established by Philips Roxane, Inc., for one or more students who have demonstrated academic excellence in the field of chemistry. Recipients must be declared chemistry majors and have at least a 3.0 GPA in the major. Application should be made to the Department of Chemistry. Recipients will be named by a departmental selection committee.

Opal Kearby Scholarship Award: Students majoring in social science are eligible to apply for one of these awards. Information concerning eligibility factors and application blanks are available from the Department of Social Sciences.

V. Fran Quammen Scholarship: This award was established by friends and relatives of Fran Quammen, a former Missouri Western State College instructor in the speech department. The interest from the trust fund is used each year to award a scholarship to encourage potential in the area of forensics. Applicants will be screened by a panel of judges selected from the speech faculty.

Competitive Scholarships

Scholarships are available to Missouri Western State College students who qualify. Applications for scholarships may be picked up in the Office of Financial Aid, and should be returned to that office by April 1. Copies of the applications will be distributed to all members of the Scholarship Committee for review. The Scholarship Committee will meet on or before April 15, and will notify all applicants of its decisions by May 1. Generally, students applying for scholarships should have at least a 2.0 GPA and be a full-time student. Scholarships are broken down into two general categories, those having specific requirements and those with no specific requirements.

Scholarships Having Specific Requirements for Eligibility

Buchanan County Medical Society Nursing Scholarship: A \$6,000 scholarship-endowment fund was established by the Buchanan County Medical Society to provide one or more scholarships for students enrolled in a nurses' training program. Application should be made to the Scholarship Committee.

Culver-Gettys Memorial Scholarship: This scholarship is given in memory of Lt. Col. Charles M. Culver and Capt. Hugh M. Gettys. The scholarship is awarded to a young man or woman who

has completed a minimum of 28 college hours. The student should have a cumulative GPA of 2.5 or better and show evidence of financial need. The scholarship shall be in the amount of \$100 for the first semester, and, if the student continues to achieve a cumulative GPA of 2.5, may be continued for the second semester. Preferably, the student should be planning a career in education.

DeSoto McCabe Memorial Scholarship: The DeSoto McCabe Memorial Scholarship has been established to fund one \$300 scholarship to a student who demonstrates financial need through the ACT's Family Financial Statement analysis, is a graduate from the St. Joseph, Missouri, School District (all other things being equal, preferably a graduate of Lafayette High School), and is reasonably capable of completing college-level work to a baccalaureate degree. The scholarship will be awarded for one semester at a time; the recipient is selected by the Scholarship Committee.

Eastside Rotary Club: The Eastside Rotary Club has established a scholarship of \$225 per semester for a qualified individual majoring in a field leading to a career in business, industry, public service, or health care. Once awarded, the scholarship may be retained as long as the student maintains a 2.5 cumulative GPA. Selection will be made by the Scholarship Committee.

Feeney Construction Company Scholarship: This scholarship was first awarded to a member of the 1962 graduating class. It is expected to be made available to graduates of one of the St. Joseph high schools, in accordance with provisions established by the donor. Students may apply to the Scholarship Committee.

Robert C. Ferguson Scholarship: This scholarship shall be awarded annually, on the basis of merit in performance, to one incoming student woodwind player. The scholarship shall pay for the applied music fees for as long as the recipient remains at MWSC, subject to annual review by appropriate instrumental instructors and juries. Students shall be selected by the music department faculty.

First National Bank Scholarships: These scholarships were established in 1961 by the First National Bank of St. Joseph as an expression of its interest in the importance of higher education and in appreciation of the contribution Missouri Western State College is making to the betterment of St. Joseph and surrounding area. The scholarships cover fees. Ordinarily, the scholarships are for one year only and new recipients are named for a year. Should conditions warrant, a student may be awarded the scholarship for a second year; however, the recipient must reapply. Application is made to the Scholarship Committee. The committee selects the two students who are best qualified from the standpoint of scholarship and financial need.

Mr. and Mrs. Clark C. Glaze Scholarship: A \$7,500 scholarship fund has been established by Mr. and Mrs. Clark C. Glaze, the interest from which is to be awarded as a scholarship. If used by a student taking a premedical course, the scholarship is to be known as the Emily B. Glaze Scholarship. If used by a student in preengineering, the scholarship will be known as the Clark C. Glaze Scholarship. Application is to be made to the Scholarship Committee.

Elliott Goldman and Libbie Loraine Goldman Scholarship: This endowed scholarship fund, established in 1980 by Elliott Goldman and his sister Libbie Loraine Goldman in memory of their parents, Dora and Ruben Goldman, and of their brothers, Dr. Nathan L. Goldman and Abe Goldman, is to be awarded annually to students who demonstrate leadership abilities, academic excellence, and financial need. Each scholarship will be in the amount of current annual in-state tuition and fees. Recipients must be full-time residents of Buchanan County and full-time students. All students may apply. However, preference will be given to junior and senior students who plan to apply for admission to law school and students majoring in art or business administration. Recipients will be selected by the Scholarship Committee.

Paul F. Kees Trust Fund: This scholarship is given in memory of Paul F. Kees and is awarded by the Scholarship Committee upon recommendation of the Department of Education. Applicants should be full-time students in good standing with a definable hearing loss. Students with other exceptionalities or who have demonstrated an interest in special education may also be considered.

Kiefer Scholarship Fund: Bequests by Miss Katherine Kiefer and Miss Josephine Kiefer established this fund to benefit young men and women living in the St. Joseph or Wathena, Kansas, area. Interest from the fund is available annually and is awarded from the Scholarship Committee.

Midland-Moorehead Scholarship: The Midland-Moorehead Company established a trust fund in 1967. The interest from the investment of the funds is awarded each year by the Scholarship Committee to a student whose major area of study is engineering or technology.

William Roesle Memorial Scholarship Fund: Family and friends of William Roesle have established a memorial scholarship fund to benefit chemistry students. The recipient is selected by the Scholarship Committee upon recommendation by the Department of Chemistry.

Southside Sertoma of St. Joseph: Southside Sertoma presents a \$200 scholarship each year to a deserving student selected by the Scholarship Committee. In keeping with Sertoma's work in areas of speech and hearing correction, the scholarship will be awarded to a student working in special education.

F. Gregg Thompson Memorial Scholarship: A scholarship fund has been established by a contribution from the F. Gregg Thompson Foundation. The interest from this fund will be awarded annually by the Scholarship Committee with preference given to a student in the premedical field. If a premedical student is not available, the committee may select a biological science student to receive the scholarship. Financial need is not necessarily the major element in the award of the scholarship; however, if applicants have equal academic standing, financial need will be the deciding factor.

Dr. Wayne Toothaker Scholarship: By the will of the late Dr. Wayne Toothaker, a sum of \$5,000 was invested, the interest from which is to be awarded to a student who expects to enter the medical profession and is taking the premedical course. Application should be made to the Scholarship Committee.

Scholarships Having No Specific Requirements

Andrews-Whitaker Memorial Scholarship: This scholarship is provided by Mr. and Mrs. Patrick H. Whitaker of St. Joseph in memory of their parents, Madeline Keil Andrews, George H. Andrews, Cora Ann Johnson Whitaker, and James W. Whitaker. Interest from the \$10,000 scholarship fund is awarded annually to students who have demonstrated academic excellence and financial need. Recipients will be selected by the Scholarship Committee.

First Trust Bank Scholarship: This scholarship was established in 1969 by the First Trust Bank of St. Joseph to express recognition for the contribution the college is making to northwest Missouri. The scholarship is awarded by the Scholarship Committee to the best qualified applicant who has financial need.

Melmed Scholarship: The income from the Melmed Trust Fund is to be used for annual scholarships of not less than \$100. Selection will be made by the Scholarship Committee.

Missouri Western State College Foundation Scholarship: Designated monies of the foundation will be used to award scholarships of not less than \$100 annually, the distribution to be made on a semester basis. Selection will be made by the Scholarship Committee.

Harry Monson Memorial Fund: The Harry Monson estate, through the Downtown Rotary Club of St. Joseph, donated \$2,500 to be used for scholarship purposes. Two thousand dollars of this total is invested and the earnings are used for a scholarship. Application should be submitted to the Scholarship Committee.

Alma Pletcher Endowment Trust Scholarship: A \$100 scholarship per year for upperclassmen is awarded to a full-time student in good standing.

Dr. Thompson E. Potter Memorial Scholarship: Friends and relatives of Dr. Thompson E. Potter have established a trust fund to be used for scholarship purposes. Dr. Potter served as president of both the Board of Regents and Board of Trustees of Missouri Western State College. The earnings from the trust fund are used each year to award a student a scholarship. Application is made through the Scholarship Committee.

Professional Food Service Management Scholarship: One \$250 scholarship for every 100 boarding students is awarded each year. Application should be submitted to the Scholarship Committee.

Frank R. Smith Memorial Scholarship Fund: Frank R. Smith served as director of public relations and of publications from 1967 to 1979. In his memory, a scholarship fund has been established to provide assistance to students based on satisfactory scholastic standing and their demonstrated need. Recipients will be selected by the Scholarship Committee, and interested students should contact the committee. Preference will be given to students with an interest in communications and journalism; however, the scholarships will not be limited to these academic fields and may include athletics.

Anne Lowell Wells Fund: This fund was created by the International Relations Club and furthered by the Cheshire Cheese Club in memory of Miss Anne Lowell Wells, a former member of the faculty. The interest from this fund is available to a deserving student. The selection of the recipient is made by the Scholarship Committee.

Scholarships Selected by Donors

American Association of University Women, St. Joseph Branch, Scholarship: The St. Joseph Branch of the A.A.U.W. offers a scholarship to a high-ranking woman with 60 or more hours. Application for this scholarship is made through the Office of Financial Aid or a member of the organization.

American Business Women's Association Award: Officers of the organization select the recipient. The award is made on the basis of scholastic achievement and financial need. Information concerning applicants is forwarded to officers of the organization who make the final selection and inform the student well in advance of the time for final registration at the college. Applications can be obtained from the Office of Financial Aid or from a member of the organization.

B'nai B'rith Women's Division Award: Selection is made from a list of eligible students by a committee from the organization. Applications can be obtained from the Office of Financial Aid or from a member of the organization.

East Hills Merchants Association Scholarships: These scholarships are awarded annually to athletes in any major sports field. Application should be made to the athletic director no later than May 1 of each year.

National Association of Power Engineers, Missouri Chapter no. 1, St. Joseph Scholarship: This organization has made a scholarship available to a preengineering student who is in the freshman year and who expects to complete the second year here. Application blanks are obtained from instructors who teach preengineering subjects. A committee made up of members of the society makes the final selection.

National Association of Women in Construction (NAWC) Scholarship: A \$100-per-year scholarship has been established by the St. Joseph Chapter no. 162 of the National Association of Women in Construction, to be awarded to a student majoring in a construction-related field, preferably a woman. This scholarship is available to any student who demonstrates financial need. The student must maintain standard academic progress. Applications will be accepted at the Office of Financial Aid; selection will be made by the local chapter.

Society for the Preservation and Encouragement of Barbershop Quartet Singing in America, Inc.: Annual scholarships are offered to students with financial need.

Carolyn B. Ullman Teacher Education Scholarship: The Missouri Congress of Parents and Teachers offers a scholarship to students wishing to prepare to teach in public elementary schools in the state of Missouri. The awards are based on character, scholastic record, aptitude for teaching, and sound health. Application forms may be obtained from the Office of Financial Aid.

United Missouri Bank of St. Joseph Scholarships: The Park Bank Scholarships were established in 1969 to assist students showing exceptional financial need while attending Missouri Western State College, so that these students may contribute to the betterment of St. Joseph and surrounding community, as well as to the college. Students may apply through the office of the superintendent of the St. Joseph Public School District.

Additional financial aid and scholarship information may be obtained upon request from the Office of Financial Aid, SS/C 101.

Student Affairs

Academic Advisement

Advisement is an important function when developing a career plan, selecting a major field, and scheduling classes. Because proper advisement can prevent errors in planning, MWSC requires advisement for first- and second-semester students before registration for classes. Freshmen receive advisement from the Office of Counseling and Testing or from a faculty member.

Counseling

Counselors are available to assist the student in becoming oriented to the college, selecting courses, making a career choice, and understanding and attempting to resolve any personal difficulties.

The Career Information Center has information to broaden the student's understanding of different careers which match individual student profiles evidenced by the interpretation of career planning instruments such as the Career Planning Profile, the computerized Career Guidance System ("Siggy"), the Strong-Campbell Interest Inventory, and the American College Test result.

Trained counselors are available to assist in resolving personal and social problems that may interfere with a college education.

New students may attend a one- or two-day orientation session designed to familiarize the student with the college and provide assistance with academic advisement and schedule planning. Subsequent interviews with a counselor may be arranged at any time thereafter. Counselors attempt to help the student reach a state of self-reliance through a clearer understanding of individual potential.

Freshman orientation dates are July 23 and August 3, 1984

Students with Disabilities

It will be to the advantage of students with handicaps creating special needs to contact the Counseling Center at least two months before enrollment.

Testing

The Office of Counseling and Testing administers and provides interpretation of several standardized exams. Major testing programs offered through the college include:

- American College Test (ACT)
- Career Planning Profile (CPP)
- General Educational Development (GED) test
- Graduate Record Exam (GRE)
- College-Level Examination Program (CLEP)
- Real Estate Exam (REE)
- Insurance Institute Exam
- Certified Professional Secretary's Exam (CPS)
- ICET (Institute for the Certification of Engineering Technicians)
- National Engineering Aptitude Search (NEAS)

- Strong-Campbell Interest Inventory (SCII)
- Minnesota Multi-Phasic Inventory (MMPI)

The Office of Counseling and Testing maintains a supply of current applications for several other standardized tests which are not administered at MWSC, such as the Medical College Application Service (MCAS), Law School Admissions Services (LSAS), Graduate Management Admissions Test (GMAT), and others.

Declaring a Major

Students are urged to formally declare their major early in their college career. The student officially declares a major by contacting the academic department offering the major and filing a *Major-Minor Application* form. In order to prevent misunderstandings, this formal declaration should be completed prior to the earning of 60 semester hours. Anyone who has earned 60 hours or more, but who has not declared a major will be required to register during lower-division registration. The college catalog in effect at the time of completion of the Major-Minor Application will be used to determine graduation requirements. The Major-Minor Application remains effective for no more than six years following its approval date. Students are responsible for the requirements of their educational programs and should work closely with their advisors.

Before the student formally declares a major, he or she should maintain close contact with those academic departments of particular interest and the Office of Counseling and Testing.

Student Conduct

As a condition to remaining at MWSC, the college expects all students to conduct themselves so as to maintain an effective environment for learning; to act responsibly in accordance with good taste; to observe college regulations and the city, state, and federal laws; and to respect fully the rights of others. The *Student Handbook* contains more specific information concerning student conduct and related disciplinary action, which may include dismissal in case of serious infraction.

Housing

The campus residence halls are contemporary in design. Each suite includes a large living room with two adjoining bedrooms on either side and two bathrooms. Each suite also has its own outside entrance, patio, and self-contained air-conditioning and heating units. For additional information concerning occupancy students should contact the housing office.

MWSC students also have an alternative lifestyle option at the college-leased Broadmoor Apartment complex. These apartments are completely furnished and offer the same advantages as residence hall life. Each apartment accommodates four students. The college provides supervision, meal options, and shuttle bus service to the campus.

A list of private off-campus housing is also maintained by the college to provide students another housing option.

Student Union

The Student Union houses the bookstore, cafeteria, the Griffon Place snack bar, Health Service, the Dean of Student Affairs office, Student Government Association, Campus

Activities Board, and the security and football offices. Recreational games and equipment are also available.

Bookstore

The college bookstore is on the first floor of the Student Union. It sells all college textbooks and supplies as well as accessories and personal items. A 5 percent discount is given on all student purchases.

Student Health Center

The Student Health Center is located in 203 Student Union. It provides primary health-care services to all MWSC students — whether on-campus residents or commuters.

Registered nurses are on duty in the Health Center from 8:00 a.m. to 5:00 p.m. Monday through Thursday and 8:00 a.m. to 3:30 p.m. Friday during the fall and spring semesters. They provide first aid, administer authorized medication, counsel on health-related problems, and make referrals to doctors, dentists, or public health offices.

A physician is available in the Health Center from 11:00 a.m. to 12:30 p.m. Tuesdays and Fridays; otherwise, a physician is on call to provide treatment for students who need a physician's attention.

All health records are strictly confidential. Clinical information will not be released to anyone without specific authorization from the patient.

Library

The library is located in the Hearnes Learning Resources Center, which houses over 140,000 volumes, periodicals for research and recreation, microform materials, films, records, filmstrips, tapes, and a variety of other print and nonprint material, making information available in the most suitable medium. Using a computerized system for interlibrary loan, the LRC also makes available ten million items in libraries across the United States. Professional librarians are available to give individual guidance and suggestions for locating resource materials. Service to patrons is of the highest importance to the staff. Computerized reference service provides access to the most current information on topics in all research fields. Individual study carrels allow for private study, while the student lounge offers a quiet relaxation area. Seminar rooms are available for group study.

Placement and Off-Campus Services

The director of placement and off-campus services interprets the college to high school and community college students, administrators, counselors, and the public. In this capacity, the director works with division deans, department chairpersons, and the offices of admissions and records, counseling and testing, financial aid, housing, and development and planning.

The office schedules school assemblies and staff visits off campus, arranges luncheons and meetings for area educators, supervises information centers, and consults with officials in business and industry in the college district regarding educational programs.

A placement service is maintained to assist new and former graduates of the college in finding employment. It makes available information concerning job openings, compiles registrants' credentials, and arranges interviews with prospective employers. The placement service assists employers by notifying them of qualified applicants, furnishing credentials, and arranging for interviews.

Students are encouraged to use the services by registering with the Placement Service in the first semester of the senior year. Alumni are urged to keep their records up to date.

Alumni Association

The MWSC Alumni Association, an independent, not-for-profit educational corporation, was established in 1970 to advance the educational interests of the college. The association is the catalyst for alumni to remain in contact with their alma mater.

Programs include sponsorship of the traditional Homecoming reception for alumni and friends following the Homecoming football game, the Commencement Breakfast for graduating seniors, and the "Griffon Globetrotters" travel program.

During the 1982-83 year, the Alumni Association provided a \$2,500 honorarium for writing the history of the college and underwrote publication of the book. Other projects included a \$1,000 contribution to the college for purchase of shrubbery for the new Fieldhouse and participation in a student recruitment project.

Members receive *alumnews*, a newsletter designed to keep former students informed of college news and activities and to report alumni news. Information on alumni activities and organized group travel opportunities is also sent to members. Special privileges are granted for use of the College recreational facilities; also, for a nominal rate, members may attend athletic events and have full circulation privileges from the library.

Membership is open to graduates and former students. Associate memberships are also available to friends of the college.

The association is governed by a twenty-four-member board of directors, with an executive director and a coordinator of alumni activities providing on-campus administrative support.

Foundation

The Missouri Western State College Foundation was established in 1969 as a separate entity to promote private giving, to help the college move into the forefront of public higher education. The Foundation encourages, holds, invests, and disburses private gifts of cash, securities, appreciated assets, and personal property, all toward the goal of providing services, programs, and facilities that cannot be provided through tax assistance and student fees.

Major gifts to the Foundation have contributed substantially toward the growth of the college and its continuous goal of excellence in such projects as the McGlothlan microbiology laboratory, Spratt Stadium, and the Fine Arts Gallery.

The Margin for Excellence Fund, initiated in 1980, has provided the college with over \$600,000, earmarked for faculty enrichment, student excellence, and program distinction. Hundreds of gifts — ranging from \$5 to well over \$10,000 — have contributed to the distinction of the college by providing scholarships, library books, equipment, summer grants for faculty, and sponsorship of programs and conferences.

The Foundation also makes available specialized estate planning services without obligation.

The MWSC Foundation is a tax-exempt corporation; therefore, all gifts made through it are tax deductible. Its activities are directed by an independent, volunteer board of twenty-five persons who work closely with the college administration to identify needs and allocate funds.

Activities

The student activities program is an important part of the educational philosophy at Missouri Western State College. While the information gained in the academic classroom is important in shaping the future of the student, the experience of participating as a citizen in an academic community is equally important.

Student Government

Composed of elected representatives from the student body, the Student Government Association (SGA) is the primary student governing body on the campus. All student committees, activities, regulations, and student-oriented decisions in general are to be formed or acted upon by SGA.

Athletics

The college's intercollegiate athletic program consists of four sports for men: football, basketball, baseball, and golf; and four sports for women: volleyball, basketball, softball, and tennis. The program falls under the auspices of the National Association of Intercollegiate Athletics (NAIA). Missouri Western's teams have been highly competitive at the conference, regional, and national levels, with five teams competing in national tournaments during the past two years.

The athletic program is supported by staff and students alike. As well as providing learning experiences for participants, the program offers a number of exciting activities for spectators, and plays a major role in campus life.

Intramurals

A full intramural sports program is offered to college personnel. The program of activities includes individual, dual, and team sports for men and women. The intramural program encourages the development of mental, physical, emotional, and social health. In general, Missouri Western State provides the opportunity for every individual, regardless of ability, to realize the fun of participation in a favorite sport against good competition.

Dramatics

At least two major productions are sponsored each year by the Department of Speech, Theatre, and Humanities. Readers' theater, oral interpretation, and forensic activities are also available to students.

Music

Musical groups include the Marching Band, Symphonic Band, Symphonic Winds Ensemble, Jazz Ensembles, Percussion Ensemble, String Ensemble, St. Joseph Symphony, various chamber instrumental ensembles, Concert Chorale, Choir, Renaissance Singers, Chamber Singers, Swing Choir, and Community Chorus. Student participation is organized through the Department of Music. All students may audition for membership in these groups, and the Department of Music invites their participation.

Social Life

The social life changes from year to year to meet the current needs and interests of the college community. Some of the traditional events are the Icebreaker Dance at the beginning of the year, the Homecoming Dance, the Christmas Dance, and the Spring Formal. Other types of social events include rock concerts, speakers and movies. Additional social events are developed and sponsored by the various organizations and interest groups on the campus.

Organizations

A list of organizations currently active on the campus appears below. More detailed information regarding all campus organizations listed will be found in the current issue of the *Student Handbook*. The office of the dean of students will assist in answering questions in this area.

Department Clubs

Agriculture Club
AlChemist Club
American Marketing Association
Association of Young Agronomists
Biology Club
Delta Phi Upsilon
Engineering Technology Society
Forensics Society
Griffon Guard
Griffon Rifles
Journalism Club
Kappa Delta Pi
Lawyers' Assistant Society
Le Circle Français
Mathematical Sciences Society
Music Educators National Conference
Organization of Student Social Workers
Phi Beta Lambda
Phi Mu Alpha Sinfonia
Pre-Law Club
Psychology Club
Sigma Alpha Iota
Sigma Tau Delta
Student Art League
Students Accounting Society
Students Nursing Association

Social Clubs

Inter-Greek Council
Lambda Chi Alpha
Panhellenic
Phi Mu
Phi Sigma Epsilon
Phi Sigma Epsilon Little Sisters
Sigma Kappa

Religious Clubs

Baptist Student Union
Campus Christian House
Fellowship of Christian Athletes
Newman Club
Wesley Foundation

Miscellaneous

Alpha Phi Omega
Black Student Union
Circle K Club
International Students Organization
MWSC Dance Company
MWSC Student Reading Council
Theata Nu Epsilon
Western Athletic Association

Academic Policies and Regulations

Change of Schedule

All class or schedule changes must be made by petition. In order to drop or add a course, the student must secure a Change of Study form and present the petition to the Office of the Registrar. Changes may be made during the following time periods:

Regular Semester: Add — During first week only.

Drop — First through tenth week.

Courses dropped through the first week will not appear on the transcript as attempted classes. Courses dropped from the second week through the tenth week will be assigned a grade of W. After the tenth week of classes and before the beginning of final examinations, a course may be dropped only by official, complete withdrawal from the college, in which case a W is recorded for each course in which the student was enrolled.

Summer Session (eight weeks): Add — First two days only.

Drop — First through fifth week.

Courses dropped through the first three days will not appear on the transcript as attempted classes. Courses dropped from the fourth day through the fifth week will be assigned a grade of W. From the sixth week through the end of the summer session, a course may be dropped only by official, complete withdrawal from the college, in which case a W is recorded for each course in which the student was enrolled.

Class Attendance

Regular class attendance is considered an essential part of the educational experience and a requirement for an adequate evaluation of academic progress. Each instructor will determine and make known to the class the requirement for attendance.

Class Auditors

A class auditor is a student registered for a course for no credit for informational instruction. A student may audit a course for a number of reasons, ranging from skills improvement through a review before registering for credit. Regardless of the purpose, it is important that students get a meaningful experience from instruction and make satisfactory progress toward their purpose. It is the role of the instructor to aid students in this determination. Therefore, audit students should expect to work closely with their instructor.

Students enrolling in a class for credit may choose to change that registration to audit before the end of the sixth week of the semester. A change from audit to credit must be completed by the end of the first week of classes. Credit by examination is not available for any student who has audited the course.

Course Load

The maximum number of credits a student may take is 18 credits per semester or 9 credits in a summer term. This includes day and evening enrollment combined. Upon

approval of the Division Dean, a student who has a 3.0 cumulative GPA or a 3.0 GPA for the previous semester or term may take additional credit for the following semester or term.

Students who find it necessary to work in order to attend college should adjust their course load to their work load. The following is a guideline which students may use to determine their course load.:

<i>Hours worked per week</i>	<i>Course load</i>
15-20 hours	12 credits
20-30 hours	9 credits
30-35 hours	6 credits
35-40 hours	3 credits

Declaring a Major

Students are urged to formally declare their major early in their college career. The student officially declares a major by contacting the academic department offering the major and filing a Major-Minor Application form. In order to prevent misunderstandings, this formal declaration should be completed prior to the earning of 60 semester hours. Anyone who has earned 60 hours or more but has not declared a major will be required to register during lower division registration. The college catalog in effect at the time of completion of the Major-Minor Application will be used to determine graduation requirements. The Major-Minor Application remains effective for no more than six years following its approval date. Students are responsible for the requirements of their educational programs and should work closely with their advisors.

Before the student formally declares a major, he or she should maintain close contact with those academic departments of particular interest and the Office of Counseling and Testing.

Course Numbering System

Each course bears a number that identifies its level, as follows:

000-099 — courses that do not apply toward a degree

100-199 — freshman-level courses

200-299 — sophomore-level courses

300-399 — junior-level courses

400-499 — senior-level courses

Normally, courses numbered 100-299 are considered lower-division courses, and those numbered 300-499 are considered upper-division courses.

Departments may offer special topics courses without prior approval of the Curriculum Committee on a single-offering basis, in order to experiment with innovative methods or content or to take advantage of visiting staff. Course numbers 196-199, 296-299, 396-399, and 496-499 are reserved for assignment to special topics courses. These offerings require approval by the Vice President for Academic Affairs.

Grading System

Grades used in evaluating the work of students are as follows:

<i>Letter grade and level of performance</i>	<i>Grade points earned</i>
A superior	4 per credit
B good; above average	3 per credit
C average	2 per credit
D minimum passing;	1 per credit

F	failing	0 per credit
Inc	incomplete	
W	withdraw, no grade assessment	
Aud	audit	
Cr	credit	

Courses evaluated by pass-fail criteria receive the number of credits for that course with a grade of Cr. A failure will result in a grade of F and no credit. Credits earned by pass-fail will not be used in computing grade-point averages for honors.

Grade-point averages are used to determine class standing and eligibility for graduation, the Dean's and President's Honor Lists, and membership in honor societies.

Honors

A President's Honor List is published at the end of each semester. To be included on the President's List, a student must be carrying 12 or more credits with a grade-point average of 4.0 exclusive of pass-fail credits or audits. A Dean's Honor List is published at the end of each semester. To be included on a Dean's List, a student must be carrying 12 or more credits with a grade-point average of 3.5 or higher exclusive of pass-fail credit or audits.

Incomplete Grades

An incomplete grade must be removed within six weeks after the close of the semester in which it was received; otherwise, the grade will be recorded as F. Appeals for extension of time may be made to the department chairperson and appropriate division dean.

A/Credit/Unsatisfactory Grading System

The major objective of the A/Cr/U option is to encourage students to explore challenging elective courses they might not otherwise select. The following policy applies to courses which may be taken under the regular A-F grading system. The following guidelines apply for the A/Cr/U option:

1. Students must have satisfactorily completed at least twelve (12) credit hours to be eligible.
2. Students must have a major-minor form on file with their chosen department.
3. Students on scholastic probation are not eligible.
4. Coursework may not be taken in the major and minor fields. This includes cognate courses stipulated by the major and minor degree programs.
5. Only one course per semester or summer session may be taken.
6. All level courses may be taken.
7. A grade of A received in a A/Cu/U course will be recorded as an A. A grade of B or C will be recorded as a Cr. A grade of D or F will be recorded as a U and will not receive course credit or be included in any GPA calculation.
8. The number of credit hours completed under this option will number no more than twelve (12) for any degree. Exception: Hours attempted in a course taken under the

A/Cr/U option and graded as an A will not be deducted from the twelve (12) hours allowed to a student under this grading system.

9. Students are expected to meet all course prerequisites.
10. Students must designate the A/Cr/U option at the Registrar's Office during the fourth week after the first day of classes.
11. Instructors will not be informed that students are enrolled under the A/Cr/U option. Regular procedures will be followed in the submission of final grades by the instructor to the Registrar. Grades will be assigned A, Cr, or U in the Registrar's Office.
12. A course completed under the letter grade system in which D or F was earned may not be repeated on an A/Cr/U.

Students should be aware that some schools, scholarship committees, and honorary societies do not find work taken on a non-graded basis acceptable. Furthermore, many employers do not view non-graded coursework in a favorable manner. All students should be very cautious in using the A/Cr/U option.

Readmission

Students placed on scholastic suspension may be readmitted after the lapse of one academic semester, provided a new application for admission form is filed with the Office of the Registrar.

Students placed on academic suspension the second time may be readmitted after the lapse of one academic year, provided a new application for admission form is filed with the Office of the Registrar.

Reinstatement after any type of suspension will be granted on a probationary basis.

Records of Academic Work and Transcripts

Unofficial transcripts will be stamped "Unofficial, for Missouri Western State College Campus Use Only," and will not contain a certifying signature, date of issue, or college seal. Such transcripts are designed to be used by MWSC personnel only. Official transcripts will be stamped with a certifying signature and date of issue, and will have the impression of the college seal. Official transcripts may be picked up in the Office of the Registrar or they will be mailed upon request. A fee of \$1 per copy will be charged. Official transcripts will not be issued to or for students who are indebted to the college until such indebtedness has been paid in full or to students who are on disciplinary suspension.

Repeating Courses

Students are permitted to repeat any course. (The A/Cr/U option cannot be used to repeat a course in which a prior letter grade of D or F was earned.) When a course is repeated, only the last grade is used in the calculation of the GPA. Topics and related format courses which change in content on a semester to semester basis do not apply in this regard.

Scholastic Probation and Suspension

Students are placed on scholastic probation if the cumulative grade-point average (CGPA) drops below the probation GPA in the Table of Academic Standards which corresponds to the cumulative credits attempted. Students on probation may need college approval for their semester course schedule.

Students are placed on scholastic suspension if their GPA drops below the suspension GPA in the Table of Academic Standards which corresponds to the cumulative credits attempted, subject to the provisions which follow. To be placed on scholastic suspension a student:

- must have attempted 20 or more credits and have been on scholastic probation during the previous semester, and
- must have a term GPA lower than 2.0 (C).

Students suspended from the college may petition the Academic Regulations and Standards Committee if they feel their case warrants special consideration. Appeals must be made immediately following notification of suspended status. Circumstances beyond the student's control must be presented before reinstatement will be considered. If reinstatement is granted, the student will be on scholastic probation.

Withdrawal from College

A student will be given a failing grade in each subject if a formal notification of withdrawal has not been made. A student must notify the Registrar in writing. The effective date of withdrawal will be the date on which the student made initial contact with the Registrar.

Credit Units

The unit of credit is the semester hour, which represents a period of weekly study for a semester. In general, a course carrying 3 credits meets for three periods weekly for one semester. The number of credits is shown in parentheses after the course title.

Description of Courses

All courses offered at the college are listed by divisions and departments. Before the opening of each term, a class schedule is published which lists the specific courses to be offered that term with the time of meeting, the building, and the room number. The college reserves the right to cancel, without notice, any course listed in the catalog or in the class schedule for any term, or to withdraw any course that does not have adequate student enrollment at the close of the registration period.

Semester Designation

The small roman numerals following the title of the course and the credit (shown in parentheses) indicate the semesters in which the course is normally offered; however, course availability is subject to staffing changes and student enrollment.

- i** — the course is offered in the fall semester
- ii** — the course is offered in the spring semester
- iii** — the course is offered in the summer session

Table of Academic Standards

<i>Cumulative hours attempted</i>	<i>Probation if GPA is less than</i>	<i>Suspension if GPA is less than</i>	<i>Cumulative hours attempted</i>	<i>Probation if GPA is less than</i>	<i>Suspension if GPA is less than</i>
1	N/A	N/A	55	1.909	1.673
2	N/A	N/A	56	1.911	1.679
3	0.333	N/A	57	1.912	1.684
4	0.750	N/A	58	1.914	1.690
5	1.000	N/A	59	1.915	1.695
6	1.167	N/A	60	2.000	1.700
7	1.286	N/A			
8	1.375	N/A	61	2.000	1.705
9	1.444	N/A	62	2.000	1.710
10	1.500	N/A	63	2.000	1.714
11	1.545	N/A	64	2.000	1.719
12	1.583	N/A	65	2.000	1.723
13	1.615	N/A	66	2.000	1.727
14	1.643	N/A	67	2.000	1.731
15	1.667	N/A	68	2.000	1.735
16	1.688	N/A	69	2.000	1.739
17	1.706	N/A	70	2.000	1.743
18	1.722	N/A	71	2.000	1.746
19	1.737	N/A	72	2.000	1.750
20	1.750	1.100	73	2.000	1.753
21	1.762	1.143	74	2.000	1.757
22	1.773	1.182	75	2.000	1.760
23	1.783	1.217	76	2.000	1.763
24	1.792	1.250	77	2.000	1.766
25	1.800	1.280	78	2.000	1.769
26	1.801	1.308	79	2.000	1.772
27	1.815	1.333	80	2.000	1.775
28	1.821	1.357	81	2.000	1.778
29	1.828	1.379	82	2.000	1.780
30	1.833	1.400	83	2.000	1.783
31	1.839	1.419	84	2.000	1.786
32	1.844	1.433	85	2.000	1.788
33	1.848	1.455	86	2.000	1.791
34	1.853	1.471	87	2.000	1.793
35	1.857	1.486	88	2.000	1.795
36	1.861	1.500	89	2.000	1.798
37	1.865	1.514	90	2.000	1.800
38	1.868	1.526	91	2.000	1.802
39	1.872	1.538	92	2.000	1.804
40	1.875	1.550	93	2.000	1.806
41	1.878	1.561	94	2.000	1.809
42	1.881	1.571	95	2.000	1.811
43	1.884	1.581	96	2.000	1.813
44	1.886	1.591	97	2.000	1.814
45	1.889	1.600	98	2.000	1.816
46	1.891	1.609	99	2.000	1.818
47	1.894	1.617	100	2.000	1.820
48	1.896	1.625	101	2.000	1.822
49	1.898	1.633	102	2.000	1.824
50	1.900	1.640	103	2.000	1.825
51	1.902	1.647	104	2.000	1.827
52	1.904	1.654	105	2.000	1.829
53	1.906	1.660	106	2.000	1.830
54	1.907	1.667	107	2.000	1.832

<i>Cumulative hours attempted</i>	<i>Probation if GPA is less than</i>	<i>Suspension if GPA is less than</i>
108	2.000	1.833
109	2.000	1.835
110	2.000	1.836
111	2.000	1.838
112	2.000	1.839
113	2.000	1.841
114	2.000	1.842
115	2.000	1.843
116	2.000	1.845
117	2.000	1.846
118	2.000	1.847
119	2.000	1.849
120 and over	2.000	1.850

Requirements for Graduation

Application for Graduation

To be considered as a candidate for graduation, the student must declare candidacy by filing an Application for Graduation in the Office of the Registrar before the following deadlines:

fall graduates — July 1

spring graduates — November 1

summer graduates — April 1

Commencement

Commencement is held at the end of the spring semester and is a voluntary activity on the part of the student. Candidates for degrees who will complete all requirements for the degree during the summer session may elect to attend spring commencement; names will appear on the commencement program and the candidates will be recognized. However, the degree will not be awarded until the close of the summer session.

General Degree Requirements for Associate Programs

A student must:

- complete the general studies requirements,
- have a minimum of 62 credits,
- have a cumulative grade-point average of at least 2.0,
- earn the last 15 credits at MWSC in resident course work, and
- have a cumulative GPA of at least 2.0 in those courses needed to satisfy the requirements of the selected major.

Transfer students seeking the associate degree must complete the last 15 hours at MWSC (exclusive of credit by examination). A minimum of 6 credits of the residence requirements must be in the major field.

General Degree Requirements for Baccalaureate Programs

A student must:

- complete the general studies requirements,
- have a minimum of 124 credits (including 60 from a senior college),
- have a cumulative GPA of at least 2.0,
- have a cumulative GPA of at least 2.0 in those courses needed to satisfy the requirements of the selected major.
- have a minimum of 30 credits in upper-division courses (numbers in the 300s and 400s with adjustments in the Two-Plus-Two programs), and

- earn 30 of the last 45 credits at MWSC in resident course work.
- refer to Department of Education for additional B.S.E. degree requirements.

Transfer students seeking a bachelor's degree must complete at least 30 of the last 45 credits at MWSC (exclusive of credit by examination). A minimum of 9 credit hours of the residence requirements must be in the major field. Education majors must also include student teaching in the residence requirement.

Grade-Point Averages

The grade-point average (GPA) is a numerical ratio of total credits attempted and total grade points received. The following are examples of the method of computing the grade-point average:

- A student who receives 16 credits of B has earned 48 grade points. The GPA is $48 \div 16 = 3.0$.
- A student who receives 16 credits of which 8 credits are B and 8 credits are C has earned 40 grade points. The GPA is $40 \div 16 = 2.5$.

Credits earned in courses in which a grade of Cr is given are not included in the computation of the GPA. When a course is repeated, only the last grade is used in the calculation. Grades of Inc, W, or Aud do not represent credit earned and are not included in the computation of the GPA. When a grade of F is received, the credits attempted are included in the computation of the GPA.

The cumulative grade-point average (CGPA) is calculated in the same fashion as the GPA and includes all undergraduate credit earned at institutions accredited by the North Central Association or a similar regional agency.

Graduate Honors

Students completing degree requirements with a CGPA of 3.9 or higher will be graduated with Highest Honors (summa cum laude). Those who have earned a CGPA of 3.75 or higher but below 3.9 will be graduated with High Honors (magna cum laude). Those who have earned a CGPA of 3.5 or higher but below 3.75 will be graduated with Honors (cum laude).

Major-Minor Application

Every degree candidate must have on file in the Office of the Registrar an approved Major-Minor Application form. This application is normally completed early in the student's college career. For additional information, consult the "Student Affairs" section.

Multiple Degrees

The college offers six baccalaureate degrees: Bachelor of Arts, Bachelor of Science, Bachelor of Science in Business Administration, Bachelor of Science in Education, Bachelor of Science in Technology, and Bachelor of Social Work. The college will confer two baccalaureate degrees provided:

- the student meets graduation requirements for each degree,
- has earned a minimum of 144 credits, and
- pays an additional \$5 for the additional diploma.

State Legislation Requirement

Section 10370, 10374, 1037a, 1037b, 1037c (SCS for SB4) of the laws of Missouri, 1947 (Sixth General Assembly), prescribe that all candidates for a degree issued by the colleges and universities of Missouri must have completed courses of instruction in and "satisfactorily passed an examination on the provisions and principles of the Constitution of the United States and of the State of Missouri, and in American History, including the study of American Institutions." Students may comply with the law by successfully completing *one* of the following courses at MWSC: HIS 140, American History to 1865; HIS 150, American History since 1865; or PSC 101, American National Government; or by completion of an equivalent course (as evaluated at MWSC) from another institution.

Degree Programs

The degree requirements in this catalog are effective beginning the fall semester of 1983. A candidate for a degree may use, as a basis for requirements, the catalog in effect at the time of completion of the Major-Minor Application. The application remains effective for no more than six years following its approval.

One-Year Certificate Programs

Missouri Western State College offers certificate programs with majors in various fields. To earn the certificate, students must complete a minimum of 30 credits with a minimum CGPA of 2.0 (C average). Certificates are offered in clerical, lawyers' assistant, and secretarial programs. Specific course requirements are listed under the department administering the program.

Associate Degree Programs

Missouri Western State College offers the Associate of Science degree with majors in various fields. For associate degree requirements, refer to the "Requirements for Graduation" section.

The Associate of Science degree is designed for the student who desires a concentrated program (usually technical in nature) in preparation for employment in business, health care, industry, or public service. The degree is available with majors in agri-business technology, agricultural production technology, automotive technology, construction engineering technology, corrections, corresponding secretary, criminal justice, electronic engineering technology, executive secretary, lawyers' assistant, mid-management, nursing, pilot training, and teacher's aide.

Two-Year General Studies Program

The required general studies curriculum consists of a common core which assures that all associate-degree-seeking students will be provided the opportunity to acquire knowledge and skills to:

- Think critically and reason analytically.
- Write and speak clearly and effectively.
- Function as an enlightened citizen of our democratic society.
- Develop an appreciation of the cultural aspects of civilization.
- Appreciate the means for gaining and maintaining mental and physical health.

Category One — Basic Skills

1. ENG 104 (3 credits)
2. Select one of the following courses (3 credits):
SPH 104 or SPH 105

Category Two — Social Sciences

Select one of the following courses:
HIS 140 or HIS 150 or PSC 101

Credits

6

3

Category Three — Humanities

Select one of the following courses:

- ART 100, ENG 210, HIS 100, HIS 110, HUM 203,
HUM 205, HUM 210, MUS 101, THR 113

Category Four — Physical Health

PED 101

Total

3

3

15

Baccalaureate Degree Programs

Missouri Western State College offers six baccalaureate degrees, with majors in various fields. For general baccalaureate degree requirements, refer to the "Requirements for Graduation" section. The baccalaureate degrees offered are:

- Bachelor of Arts
- Bachelor of Science
- Bachelor of Science in Business Administration
- Bachelor of Science in Education
- Bachelor of Science in Technology
- Bachelor of Social Work

The **Bachelor of Arts** degree is broadly based in the liberal arts and sciences. It is usually pursued by students who plan, upon graduation, to enter graduate school or a professional school such as law, medicine, or dentistry, and by students who plan to seek employment in the areas of the arts, languages, social work, and government service. Specific requirements include 16 credit hours in a foreign language and completion of a major in one of the following areas: art, biology, chemistry, English, history, mathematics, music, political science, psychology, sociology, speech communication, and theatre.

The **Bachelor of Science** degree is based on concentrated study in one or more sciences. It is usually pursued by students who plan to apply this knowledge in the scientific areas of health, industry, and research. Specific degree requirements include completion of a major in one of the following areas: agriculture, biology, chemistry, computer science, criminal justice, data processing, history, leisure management, mathematics, medical technology, natural science (biology), natural science (chemistry), political science, psychology, sociology, and speech communication.

The **Bachelor of Science in Business Administration** degree is designed for the student who desires a broad foundation in several areas related to business principles as applied in business, industry, or government. This degree is available with majors in accounting, economics, management, and marketing.

The **Bachelor of Science in Education** degree is designed to prepare individuals for careers in teaching or education. Upon completion of the degree requirements with a minimum cumulative GPA of 2.5 and a minimum grade of C in student teaching, the candidate will receive a State of Missouri Teaching Certificate and be prepared for employment or for graduate study in education or related fields. Specific degree requirements include completion of the professional education program and a major in elementary education or in secondary education in the areas of art, biology, business, chemistry, English, mathematics, music, physical education, social science, and speech and theatre.

The **Bachelor of Science in Technology** degree is designed for the student interested in a career as a technologist requiring skills and knowledge necessary to plan, produce, inspect, maintain, install, and distribute technological products or services. Specific degree requirements include completion of a major in construction engineering technology or electronics engineering technology.

The **Bachelor of Science in Technology "Two Plus Two"** degree is designed for

the student who has completed a career-oriented associate degree program and desires the bachelor's degree with an additional emphasis in an approved cognate field. A student must complete 24 to 30 credits in a cognate field as well as the general degree requirements for baccalaureate programs. An earned associate degree with a career-oriented major is a prerequisite for admission into the degree program.

The **Bachelor of Social Work** degree is designed for the student whose goal is preparation for professional social work practice. A structured program of instruction focused on necessary specialized skills and knowledge is available to students who have declared a major in social work in accordance with the requirements for admission to the social work program.

Four-Year General Studies Program

General studies at Missouri Western State College constitute a common core of curriculum offerings necessary to produce an individual who demonstrates the skills, knowledge, and characteristics of an educated person. The required general studies curriculum assures that all baccalaureate-degree-seeking students will be provided the opportunity to acquire knowledge and skills to:

- Think critically and reason analytically.
- Write and speak clearly and effectively.
- Understand common phenomena in the physical, natural, and social environments and the methods by which they are studied.
- Gain a greater awareness of the present through an understanding of other cultures and times.
- Understand and appreciate moral values and ethical choices.
- Understand and enjoy aesthetic experiences and share in related creative activities.
- Understand and appreciate the means of gaining and maintaining mental and physical health.
- Understand and appreciate technological concepts and their influence on society.

The courses meeting the first two objectives concentrate on the development of basic learning skills such as reading, speaking, writing, and critical thinking. All other courses in the general studies curriculum must, where possible, reinforce these basic learning skills.

A student may attempt credit by examination in most of the general studies courses.

Credits

Category One — Basic Skills

12

1. MAT 101 or any higher-level mathematics course (3 credits) or HUM 219 (ACT of 20 or above in mathematics required to count as meeting General Studies)
2. ENG 104 and 108 or 112 (6 credits)
3. Select one course from the following (3 credits):
SPH 104 or SPH 105

Category Two — Natural Sciences

8-10

Select a minimum of 8 credits from two of the following disciplines:

1. BIO 101 (BIO 111 and BIO 112 may be substituted)
2. CHE 101 or CHE 104 or CHE 111
3. ESC 111
4. PHY 101 or PHY 110 (PHY 210 and PHY 211 may be substituted)
5. PHY 104

Category Three — Social Sciences

6

Select one course from each of the following groups:

1. PSY 101, SOC 110, SOC 120, GEO 100, or ECO 101
2. HIS 140 or HIS 150 or PSC 101

Category Four — Humanities

Select one course each from three of the following groups:

1. HIS 100, HIS 110, HUM 203, HUM 205
2. ENG 210, HUM 210, HUM 230, HUM 250
3. ART 100, MUS 101, THR 113
4. FRE 102, GER 102, SPA 102

Category Five — Physical Health

4

1. PED 101 (3 credits)
2. One physical education activity

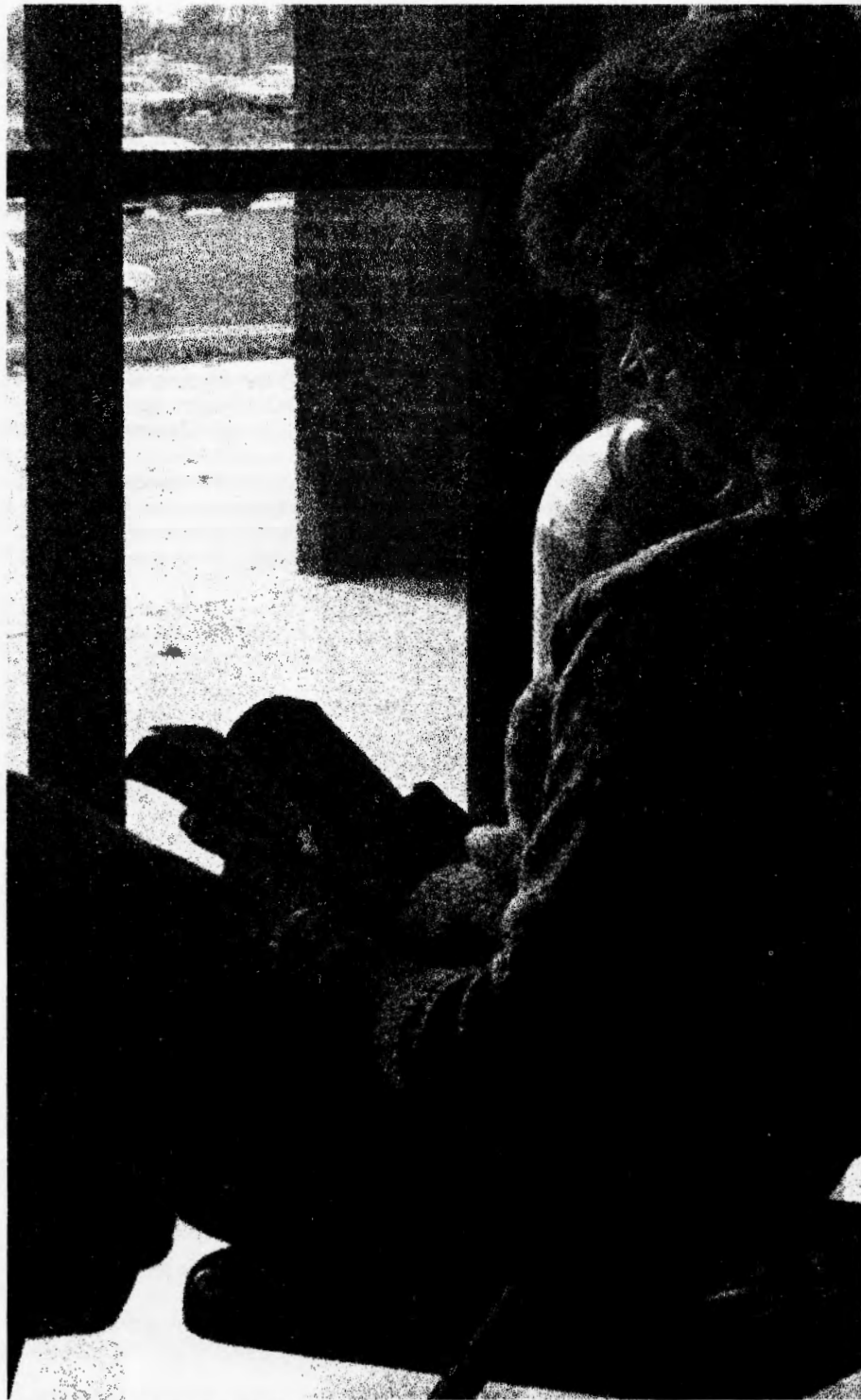
Total

39-42

Transfer Programs

Preprofessional programs in specialized fields are offered for students who plan to transfer to a university for the completion of their studies. Students choosing these programs should select a transfer institution early and should work closely with their academic advisor and counselor.

The following areas are those in which most students concerned with transfer programs express an interest: architecture, chiropractic, dentistry, engineering, law, journalism, medicine, mortuary science, optometry, pharmacy, physical therapy, veterinary medicine.



Scholarship is important at Missouri Western.

Academic Programs

The Division of Career Programs

The Division of Career Programs includes the Departments of Agriculture, Business and Economics, Criminal Justice, Engineering Technology, Military Science, and Nursing; and the Programs in Automotive Technology, Lawyers' Assistant, Secretarial Science, and Pilot Training. The division provides career-oriented education leading to one-year certificates and to the Associate of Science, Bachelor of Science, Bachelor of Science in Business Administration, Bachelor of Science in Education, and Bachelor of Science in Technology degrees. Programs of study are offered which prepare individuals to enter into or advance in careers in business, industry, public service, and health care.

The overall philosophy of the Division of Career Programs is to create a learning environment which promotes the acquisition of academic knowledge and the development of practical skills based on individual needs.

The division strives to provide curricula based on documented requirements for employment opportunities. Objectives are:

- To build the framework of basic knowledge underlying the chosen career program;
- To provide situations of study in which skills for a career can be developed and utilized;
- To promote an environment conducive to students' learning not only the skills and knowledge, but also the proper attitudes necessary to achieve and become productive in their chosen career areas;
- To advise students in selecting educational experiences which will facilitate educational development in the chosen career field and in general education;
- To assist the program graduates in securing responsible positions in chosen careers.

Department of Agriculture

Dr. L. Cowser, *chairperson*

Agriculture has changed tremendously in recent years and is continuing to do so; it is no longer simply "farming". Today's agricultural industry includes three broad areas: research and education; production of food and fiber; and business and industry which provide goods and services in the processing and distribution of farm products. Undergraduate curricular offerings in the Department of Agriculture are designed to provide a broad general education, while still allowing students sufficient opportunity to select professional electives to satisfy their special needs and desires.

The Department of Agriculture offers programs leading to the Bachelor of Science degree with a major in agriculture and with emphases in agricultural economics, agronomy, animal science, or general agriculture.

An Associate of Science degree is offered with a major in agricultural production technology or agri-business technology.

The agricultural economics curriculum is designed to provide an exposure to most areas of agricultural business and management, allowing concentration in a particular area. It is organized to prepare the student for employment in sales, distribution, purchasing, price analysis, banks, government-affiliated or -operated agencies, farm management, and other, more specific, fields.

The agronomy curriculum is organized to prepare the student for professional positions with agencies of the state and federal governments, as well as with private industry. Job titles include soil scientist, soil conservationist, farm manager, feed, seed, and fertilizer distributor, soil laboratory technician, and others.

The animal science curriculum is designed to prepare students for careers in the animal industry as farm manager, feed distributor, order buyer, and other related occupations.

The general agriculture curriculum is designed so that the student may select courses from several areas of study, thereby enabling him or her to hold positions in the general field of agriculture.

The Associate of Science majors are designed so that the student may gain professional knowledge and experience as quickly as possible without taking many of the general education courses that are required for the B.S. degree.

A minor consists of 20 credits in a selected discipline. Students minoring in agricultural economics must take AEC 150, 200, 308; students minoring in agronomy must take AGN 120, 222, 320; students minoring in animal science must take ASI 130, 236.

Bachelor of Science Degree Requirements

Students must complete a total of 62 credits in agriculture courses (courses with AEC, AGN, AGR and ASI prefixes).

Agriculture Core

<i>Requirements:</i>		<i>Credits</i>		
AEC 150 Agricultural Economics	4	AGR 430 Seminar		1
AEC 200 Agricultural Marketing	3	ASI 130 Animal Science		4
AGN 120 Plant Science	4	ASI 236 Fundamentals of Animal Nutrition		3
AGN 222 Soil Science	5	CHE 104 Fundamentals of Chemistry		4
AGR 111 Orientation	1			
				29

Major In Agriculture, Agricultural Economics Emphasis

<i>Requirements:</i>	<i>Credits</i>
AEC 304 Farm Finance and Accounting	4
AEC 305 Farm Management	3
AEC 308 Commodity Marketing	3
AEC 400 Farm Price Analysis	3
AEC 402 Agricultural Law	3
MAT 105 College Algebra	3
ECO 260 Principles of Economics I	3
Select 3 credits from the following:	
AEC 204, 310, 490	3
	<hr/>
	25

<i>Suggested electives:</i>	
ACC 230 Principles of Accounting I	3
MGT 210 Business Statistics	3
CSC 182 Introduction to Data Processing	3
ECO 261 Principles of Economics II	3

Major In Agriculture, Agronomy Emphasis

<i>Requirements</i>	<i>Credits</i>
AGN 320 Soil Fertility	4
AGN 322 Forage Crop Management	3
AGN 324 Diseases of Field Crops	2
AGN 326 Agricultural Chemicals	3
AGN 426 Soil Genesis and Classification	3
AGN 436 Soil Microbiology	3
CHE 204 Agri. Organic Chemistry	4
CHE 304 Biochemistry and Natural Products	3
Select 3 credits from the following:	
AGN 224, 420, 429, 490	3
	<hr/>
	28

<i>Suggested electives:</i>	
CSC 182 Introduction to Data Processing	3
MAT 105 College Algebra	3
ESC 204 Introduction to Geology	4

Associate of Science Degree Requirements

Major In Agricultural Production Technology

<i>Requirements:</i>	<i>Credits</i>
AEC 150 Agricultural Economics	4
AEC 200 Agricultural Marketing	3
AGN 120 Plant Science	4
AGN 222 Soil Science	5
AGR 111 Orientation to Agriculture	1
AGR 290 Occupational Experience	8
ASI 130 Animal Science	4

Major In Agriculture, Animal Science Emphasis

<i>Requirements:</i>	<i>Credits</i>
ASI 265 Meat Science	3
ASI 330 Applied Animal Nutrition	4
ASI 338 Animal Breeding	3
ASI 339 Livestock Evaluation	3
ASI 475 Diseases of Livestock Animals	2
CHE 204 Agri. Organic Chemistry	4
CHE 304 Biochem. and Natural Products	3
Select 6 credits from the following:	
ASI 332, 333, 334, 336, 337, 439, 490	6
	<hr/>
	28

<i>Suggested electives:</i>	
CSC 182 Introduction to Data Processing	3
ECO 160 Consumer Economics	3
MAT 105 College Algebra	3

Major In Agriculture, General Agriculture Emphasis

<i>Requirements</i>	<i>Credits</i>
AEC 304 Farm Finance and Accounting	4
AEC 305 Farm Management	3
AEC 308 Commodity Marketing	3
AGN 224 Grain Handling and Grading	3
AGN 320 Soil Fertility	4
AGN 326 Agricultural Chemicals	3
ASI 330 Applied Animal Nutrition	4
ASI 339 Livestock Evaluation	3
	<hr/>
	27

<i>Suggested electives:</i>	
CSC 182 Introduction to Data Processing	3
MAT 105 College Algebra	3

Major In Agri-Business Technology

<i>Requirements:</i>	<i>Credits</i>
AEC 150 Agricultural Economics	4
AEC 200 Agricultural Marketing	3
AEC 204 Agri-Supply Management	3
AGN 120 Plant Science	4
AGN 222 Soil Science	5
AGR 111 Orientation	1
AGR 290 Occupational Experience	5
ASI 130 Animal Science	4
ASI 339 Livestock Evaluation	3

CHE 104 Fundamentals of Chemistry	4
MGT 110 Business Organization	3
MKT 274 Professional Selling	3
ACC 230 Principles of Accounting I	3
Select 3 credits from the following:	
AGN 224, 326; AEC 308;	
MGT 312; MKT 270	3
	<hr/>
	48

Agricultural Economics Courses

AEC 150 Agricultural Economics (4) i. Economic principles underlying the organization of agriculture; problems of pricing, production costs, distribution, and relation of agricultural policy to the consumer.

AEC 200 Agricultural Marketing (3) ii. Principles underlying the marketing of farm products with emphasis on describing the marketing process. Prerequisite: AEC 150 or equivalent.

AEC 204 Agri-Supply Management (3) ii (odd-numbered years). Comprehensive course in the management of a retail farm supply store; includes product knowledge, personnel policies and relationships, purchasing and sales techniques, inventory methods, stock control, and merchandising.

AEC 304 Farm Finance and Accounting (4) ii. Purpose and methods of keeping farm records, and procedures in accounting; principles involved in financing the farm business and the use of credit. Prerequisite: AEC 150, MAT 105, or equivalents.

AEC 305 Farm Management (3) i. Principles of farm management and farm organization; includes selection of farm enterprises, farm credit, leases, and types of farming adapted to a given farm. Prerequisite: AEC 150, 304.

AEC 308 Commodity Marketing (3) i. Comprehensive analysis of the movement of agricultural commodities with an emphasis on pricing procedures, and the use and function of the futures market. Prerequisite: AEC 200.

AEC 310 Agricultural Policy (3) i (even-numbered years). The study of programs, both past and present, that affect the situation of agriculturalists and what the alternatives are for the future. Prerequisite: AEC 150.

AEC 400 Farm Price Analysis (3) i (odd-numbered years). Economic and econometric principles applied to price movements and price discovery in agriculture. Prerequisite: AEC 200.

AEC 402 Agricultural Law (3) ii (even-numbered years). The legal framework underlying decision making by farm firms, families, and individuals; liabilities, real and personal property, contracts, farm commercial code, organization of farm firms, intergenerational, property transfer, water and fence laws, federal and state regulatory powers, and insurance. Three hours lecture per week. Prerequisite: Junior standing or consent of instructor.

AEC 490 Special Problems (1-8) i, ii. Designed for student research problems on the farm. Prerequisite: Consent of department chairperson should be obtained the semester preceding enrollment. May be repeated to a maximum of 8 hours credit.

Agronomy Courses

AGN 120 Plant Science (4) ii. Principles of production and management; discusses importance and ecology of each crop, new practices, and varieties. Laboratory includes a study of the plant and plant parts. Three hours lecture, two hours lab.

AGN 222 Soil Science (5) i. The origin, formation, and characteristics of different soil types, emphasizing soils of Missouri. Laboratory and field trips. Four hours lecture, two hours lab. Prerequisite: CHE 104.

AGN 224 Grain Handling and Grading (3) i (even-numbered years). Grain movement from producer to consumer and factors influencing these procedures; application of the federal standards for grading farm crops and judging of grains. Two hours lecture, two hours lab.

AGN 320 Soil Fertility (4) ii. Use and management of lime and fertilizer on soils; emphasizes individual nutrients utilization. Three hours lecture, two hours lab. Prerequisite: AGN 222.

AGN 322 Forage Crop Management (3) ii. Ecology, insects, diseases, culture, uses, and management of forage.

AGN 324 Diseases of Field Crops (2) i (even-numbered years). Diseases of field crops and forages that cause economic loss to the producer.

AGN 326 Agricultural Chemicals (3) i (odd-numbered years). Introduction to the field of agricultural chemicals including herbicides, insecticides, types of materials, calibration of sprayer, methods of use, and safety measures. Two hours lecture, two hours lab. Prerequisite: CHE 104 recommended.

AGN 420 Soil Conservation and Management (3) ii (odd-numbered years). Conservation and management of soils with respect to erosion, depletion, fertility, physical improvement, and crop production; includes farm surveying, design and layout of terrace systems, drainage, and farm ponds.

AGN 426 Soil Genesis and Classification (3) i (even-numbered years). Identification and mapping of soils and soil systems; interpretation and utilization of soil survey information. Two hours lecture, two hours lab. Prerequisite: AGN 222.

AGN 429 Corn and Soybean Production (3) i (odd-numbered years). Studies the latest research and production practices concerning varieties, cultural practices, fertilization, rotations, insects, disease, and weed control problems; includes harvesting and marketing.

AGN 436 Soil Microbiology (3) i (odd-numbered years). Studies soil microorganisms and their relation to the fertility of the soil, with special emphasis on the decomposition of organic matter, rocks, and minerals. Prerequisite: AGN 222.

AGN 490 Special Problems (1-8) i, ii, iii. Designed for student research projects on the farm. Prerequisite: Consent of department chairperson should be obtained the semester preceding enrollment. May be repeated to a maximum of 8 hours credit.

Animal Science Courses

ASI 130 Animal Science (4) i. Introductory course in animal science; emphasizes fundamental concepts of animal breeding, management, marketing, nutrition, and physiology as they apply to the livestock industry. Three hours lecture, two hours lab.

ASI 236 Fundamentals of Animal Nutrition (3) i. Studies various nutrients and their function, digestion, and metabolism by various species of animals. Prerequisite: ASI 130; CHE 104 recommended or equivalent chemistry course.

ASI 265 Meat Science (3) ii. Introduction to slaughter of hogs, cattle, and sheep; carcass evaluation and grading; federal and state meat inspection and identification of various cuts of meat from the domestic farm animal. Two hours lecture, two hours lab.

ASI 330 Applied Animal Nutrition (4) ii. Measure of the nutritive value of feeds, nutrient requirements of the various species of livestock, sources and composition of nutrients, ration formulation, preparation of feed, feed additives, and food and drug regulations. Three hours lecture, two hours lab. Prerequisite: ASI 236.

ASI 332 Beef Production (3) ii (odd-numbered years). Production, management, marketing, and nutrition of commercial and purebred beef cattle. Two hours lecture, two hours lab. Prerequisite: ASI 130 and junior standing.

ASI 333 Dairy Science (2) i (odd-numbered years). Development of dairy cattle breeds, principles and practices of dairy cattle feeding, management, and selection of breeding animals for dairy herds. Prerequisite: ASI 236.

ASI 334 Horse Production (3) ii (odd-numbered years). Basic principles of horse breeding, color, inheritance, health, management, nutrition, and marketing. Prerequisite: ASI 130 and junior standing.

ASI 336 Sheep Production (3) ii (even-numbered years). Selection and management of sheep, emphasizing economic and quality traits in selection, breeding programs, health programs, nutrition, management, and marketing. Two hours lecture, two hours lab. Prerequisite: ASI 130 and junior standing.

ASI 337 Swine Production (3) i (even-numbered years). Methods of breeding, feeding, marketing, and management of purebred and commercial swine. Two hours lecture, two hours lab. Prerequisite: ASI 130 and junior standing.

ASI 338 Animal Breeding (3) i. Studies mating systems and application of genetic principles and practices to the improvement of domestic animals, and the use and value of performance testing; includes physiology of farm animals. Two hours lecture, two hours lab. Prerequisite: ASI 130.

ASI 339 Livestock Evaluation (3) ii. Selection of beef, horses, sheep, and swine for specific uses; comparative terminology, grading, judging, and presentation of oral reasons. Six hours lab. Prerequisite: ASI 130.

ASI 439 Livestock Evaluation II (3) i. Specialized training in evaluating and grading live animals. Field trips to farms and livestock expositions. Six hours lab (plus trips to contests). Prerequisite: ASI 339 or consent of instructor.

ASI 475 Diseases of Livestock Animals (2) ii. General principles regarding the prevention, identification, control, and eradication of troublesome and common diseases and parasites of farm animals. Prerequisite: ASI 130; one or more of the following is recommended: ASI 332, 334, 336, 337.

ASI 490 Special Problems (1-8) i, ii. Designed for student research projects on the farm. Prerequisite: Consent of department chairperson and instructor should be obtained the semester preceding enrollment. May be repeated to a maximum of 8 hours credit.

Agriculture Courses

AGR 111 Orientation to Agriculture (1) i. Survey of careers in agriculture, concentrating on the areas of agricultural economics, agronomy, and animal science. Should be taken the first semester in college.

AGR 210 Farm Mechanization (3) i (even-numbered years). Study of the basic principles of the power unit, equipment, major components, management, and the operator's safety.

AGR 290 Occupational Experience (1-8) i, ii, iii. Internship under the supervision of a college instructor. Students will be assigned according to their preparation and interests to intern in an approved agriculturally oriented agency or firm, working with administrative and operational personnel at several levels. Times will be arranged. Prerequisite: Consent of department chairperson during the semester preceding enrollment. Note: Students should not enroll for other courses during the day in the semester during which they enroll for more than 3 credits in this course. May be repeated to a maximum of 8 hours credit.

AGR 430 Seminar (1) i, ii. Independent reading within the several disciplines of agriculture, summarized and presented orally to students and faculty. Prerequisite: Junior or senior standing.

AGR 450 Independent Study (1-4) i, ii, iii. Research topics assigned on an individual basis; conference times will be arranged. Prerequisite: Consent of department chairperson.

Program in Automotive Technology

The Program in Automotive Technology is designed to prepare individuals to become automotive technicians and automobile service managers. Career opportunities include positions with automobile and truck dealers, service stations, automotive service centers, and automotive service departments in various companies.

An Associate of Science degree with a major in automotive technology requires the completion of the following specific courses: AUT 111, 120, 160, 170, 180, 190, 201, 250, 255, 270; EGT 103 and 110; MGT 110 and 116.

Automotive Technology Courses

AUT 111 Automotive Engine Theory and Analysis (5) i. Beginning course in theory and practical mechanics of the internal combustion engine; emphasizes operation principles of four-cycle engines. Students work in the laboratory with engines to learn mechanical relationships and use of tools and gauging instruments. Three hours lecture, four hours lab.

AUT 120 Automotive Suspension and Chassis (4) i. Designed to acquaint the student with various automotive chassis and suspension systems and the related components which initiate braking, steering, and spring controls; includes front-end geometry, front-end alignment, manual and power-assist steering units, manual and power-assist braking design and service, and front and rear suspension design and service. Two hours lecture, four hours lab.

AUT 160 Automotive Electrical Systems (4) ii. Principles of operation, design, and service procedures of battery, D.C. generators, alternators, voltage regulators, starters, solenoids, ignition systems (including electronic), and oscilloscope diagnosis methods. Three hours lecture, two hours lab.

AUT 170 Automotive Fuel and Emission Control Systems (4) i. Designed to cover basic carburetor circuits on single-, two-, and four-barrel carburetors; emphasizes rebuilding and adjustment techniques as well as an understanding of emission control systems; discusses tune-up techniques and the importance of meeting emission standards set by law. Three hours lecture, two hours lab. Prerequisite: AUT 111.

AUT 180 Power Transmission (4) ii. Covers components of the modern automotive power train mechanisms; familiarizes the student with the total automotive drive train covering components located between the engine and the drive wheels; includes clutches, fluid couplings and torque converters, standard transmissions, overdrives, fundamentals of automatic transmissions, universal joints, drive shafts, differentials, and transaxles. Two hours lecture, four hours lab.

AUT 190 Automotive Technology Practicum (3-5) ii, iii. Provides the student with the opportunity to apply formal training to actual work situations. The student will work in a job related to his or her area of interest and will be evaluated by the participating employer for course credit. Prerequisite: A completed automotive technology major application and all lower-numbered automotive classes.

AUT 201 Fuel Injection Systems and Controlling Accessories (4) i. A course on the operation, testing, diagnosis and adjustment of fuel injection systems, both gasoline and diesel, used on domestic and import cars and light trucks. Supporting and controlling devices integral to both types of fuel injection systems are also studied. Diesel engines are studied relative to variations in operation, construction and fuel systems. Three hours lecture, two hours lab. Prerequisite: AUT 111 and AUT 160.

AUT 250 Service Management Seminar (2) i. A detailed analysis of service department management practices and the district service representative's responsibility to the service department operation; guest speakers include service advisors, service foremen, factory zone and district representatives, and career planning and placement personnel. Prerequisite: 12 credits in automotive technology.

AUT 255 Service Techniques Laboratory (4) ii. Practical garage experience in all phases of automotive servicing with related technical content devoted to diagnosis, trouble shooting, and shop management. Eight hours lab. Prerequisite: All lower-numbered automotive classes.

AUT 270 Automotive Air Conditioning and Accessories (4) ii. Familiarizes the student with automotive air conditioning units and power accessories; emphasizes service and diagnosing of these units on and off the vehicle. Two hours lecture, four hours lab. Prerequisite: AUT 160.

Department of Business and Economics

Dr. P. McMurry, *chairperson*

The Department of Business and Economics offers diversified programs leading to associate degrees in mid-management and baccalaureate degrees with majors in accounting, business education, economics, management, and marketing. Minors are in accounting, economics, management, marketing and general business. Students receive a general background in the fundamentals of business and economics as well as an opportunity to specialize within a particular discipline. The programs have been designed to prepare students for a career in the challenging and ever-changing field of business as well as for the pursuance of advanced degrees. The department is actively involved in student placement and assists students in meeting potential employers through annual seminars.

Four-Year Programs

The department offers a Bachelor of Science in Business Administration degree with majors in accounting, economics, management, or marketing, and a Bachelor of Science in Education degree with a major in business education.

The requirements for these majors follow.

Bachelor of Science in Business Administration Degree Requirements

Freshman-Sophomore Core

	<i>Credits</i>
ACC 230 Principles of Accounting I	3 ✓
ACC 231 Principles of Accounting II	3 ✓
ECO 260 Principles of Economics I	3 ✓
ECO 261 Principles of Economics II	3 ✓
GBA 210 Business Statistics I	3 ✓
GBA 211 Business Law I	3 ✓
MKT 270 Principles of Marketing	3 ✓
MAT 105 College Algebra (use to fulfill general studies requirement)	3
Total core credits	24

Professional Core

	<i>Credits</i>
MGT 312 Principles of Management	3 ✓
MGT 315 Financial Management	3 ✓
GBA 319 Business Communications	3 ✓
Total core credits	9

Total credits, both cores 33

Major in Accounting

	<i>Credits</i>
All of the following:	
ACC 330 Intermediate Accounting I	3
ACC 331 Intermediate Accounting II	3
ACC 333 Cost Accounting	3
ACC 336 Tax Accounting	3
ACC 430 Advanced Accounting Problems* or	
ACC 431 Seminar in Accounting Theory*	3
ACC 433 Auditing	3
Total	18

One of the following:

ACC 332 Accounting Systems and Control	3
ACC 334 Budgets and Budgeting Control	3
ACC 335 Government and Institutional Accounting	3

*Cannot be taken as an elective if used to fulfill the required accounting courses.

ACC 430 Advanced Accounting Problems	3
ACC 431 Seminar in Accounting Theory	3
ACC 432 Advanced Cost Accounting	3
ACC 439 Advanced Tax Accounting	3
Total	12

One of the following:

ECO 360 Intermediate Macroeconomics	3
ECO 361 Intermediate Microeconomics	3
ECO 362 Public Finance	3
ECO 363 Money and Banking	3
ECO 365 Government Regulation of Business	3
Total	12

One of the following:

GBA 411 Investment Analysis	3
MGT 412 Personnel Management	3
MGT 415 Administrative Supervision	3
MGT 419 Business Policy	3
Total	12

One of the following:

CSC 245 Introduction to COBOL	3
GBA 311 Business Law II	3
GBA 313 Business Statistics II	3
MGT 473 Business Research	3
Total	12

Total core and major credits 63

Major in Economics

	<i>Credits</i>
All of the following:	
ECO 360 Intermediate Macroeconomics	3
ECO 361 Intermediate Microeconomics	3
ECO 363 Money and Banking	3
Upper-level ACC, MGT, MKT, GBA	3
Total	12

Four of the following:

ECO 362 Public Finance	3
ECO 364 Labor Economics	3
ECO 365 Government Regulation of Business	3
ECO 367 Urban and Regional Economics	3
ECO 460 Business Cycles and Forecasting	3
ECO 461 International Economics	3
ECO 462 History of Economic Thought	3
ECO 463 Comparative Economic Systems	3
ECO 466 Current Economic Problems	3
Total	12

Total core and major credits 57

Major in Management

All of the following:

	<i>Credits</i>
MGT 412 Personnel Management	3 ✓
MGT 419 Business Policy	3 ✓
Upper-level ACC, ECO, MKT, GBA	3
Upper-level ECO	3
Total	12

Three of the following:

GBA 311 Business Law II	3 ✓
- GBA 313 Business Statistics II	3
- GBA 316 Principles of Insurance	3
MGT 410 Small Business Management	3 ✓
GBA 411 Investment Analysis	3 ✓
- GBA 413 Real Estate	3
- MGT 415 Administrative Supervision	3
MGT 416 Production Management	3 ✓
- MGT 417 Credit Management	3
MGT 420 Small Business Practicum I	3
MGT 421 Small Business Practicum II	3
MGT 473 Business Research	3
Total	9

Total core and major credits 54

Major in Marketing

	<i>Credits</i>
All of the following:	
MKT 470 Marketing Management	3
MKT 472 Sales Management	3
MGT 473 Business Research	3
MGT 419 Business Policy or	
MKT 474 Marketing Seminar	3
Total	12

Three of the following:

MKT 371 Principles of Retailing	3
MKT 372 Physical Distribution	3
MKT 375 Industrial Marketing	3
MKT 376 Advertising	3
MKT 377 International Marketing	3
MKT 378 Product Strategy	3
MKT 471 Consumer Behavior	3
ECO 361 Intermediate Microeconomics or	
ECO 460 Business Cycles Forecasting	3
Total	9

Total core and major credits 54

Additional Requirements for B.S.B.A Degree

In addition to the above requirements for the B.S.B.A. degrees, students must have at least a 2.0 GPA in credits comprising the major as well as a minimum of 21 credits of upper-level courses (numbered 300 or above) in the department. If a transfer student from a junior college fulfills a 300-level required course with an accepted transfer course, the course will be accepted as meeting the course requirement, but will not be evaluated as fulfilling the 21-credit upper-level requirement. No junior college course will be accepted as a transfer for any 400-level course in the department.

Bachelor of Science in Education, Major in Business Education - Degree Requirements

Business Education Core

	<i>Credits</i>		
GBA 110 Business Organization	3	<i>General business option:</i>	
SEC 141 Intermediate Typing	3	ECO 261 Principles of Economics II	3
SEC 240 Office Typing Problems	3	MGT 312 Principles of Management	3
ACC 230 Principles of Accounting I	3	MKT 270 Principles of Marketing	3
ACC 231 Principles of Accounting II	3	MKT 274 Professional Selling	3
ACC 330 Intermediate Accounting I or		Elective in business or	
ACC 333 Cost Accounting	3	secretarial science	3
ECO 260 Principles of Economics I	3		15
GBA 116 Business Math or		<i>Professional education:</i>	
GBA 210 Business Statistics	3	SED 202 Introduction to	
GBA 211 Business Law	3	Secondary Education	2
GBA 319 Business Communications or		SED 203 Participation in	
SEC 350 Office Communications	3	Secondary Teaching I	1
CSC 182 Introduction to Data Processing	3	SED 303 Experience in	
BUS 455 Methods of Teaching		Secondary Teaching II	3
Business Subjects	3	SED 304 Psychology in	
<i>Total core credits</i>	36	Secondary Teaching	4
		SED 311 Secondary Reading Techniques	2
		SED 404 Seminar in	
		Secondary Education	3
Major in Business Education		SED 407 Psychology and Education	
Choose one of two options:		of the Exceptional Student	2
		SED 409 Student Teaching III	
		(Secondary)	9
<i>Skills option:</i>			26
Two shorthand courses chosen from		<i>Total core and major credits</i>	77
SEC 144, 145, 340	6		
SEC 370 Word Processing	3		
SEC 231 Electronic Calculator	1		
SEC 232 Machine Transcription	2		
SEC elective	3		
	15		

Additional Requirements for B.S. in Education Degree

In addition to the above requirements, students enrolled in the Business Education program must have a composite score of 18 or more on the ACT examination. Missouri certification requires a cumulative GPA of at least 2.50 at the time of graduation. If a transfer student from a junior college fills a 300 level required course with an accepted

transfer course, the course will meet the course requirement, but is not counted as upper division credit and a substitute course required. No junior college course will be accepted as a transfer for any 400 level course in the department.

Associate of Science Degree Requirements

The department offers an Associate of Science degree with a major in mid-management and emphases in accounting, banking and finance, data processing, or retailing. In cooperation with the St. Joseph chapter for the American Institute of Banking, the department offers courses leading to the A.I.B. Standard Certificate. Further information is available in the office of the department chairperson.

The requirements for this major follow.

Mid-Management Core

	<i>Credits</i>
GBA 110 Business Organization	3
GBA 116 Business Mathematics or	
GBA 210 Business Statistics I	3
ACC 230 Principles of Accounting I	3
ACC 231 Principles of Accounting II	3
ECO 260 Principles of Economics I	3
ECO 261 Principles of Economics II	3
MGT 312 Principles of Management	3
<i>Total core credits</i>	21

Accounting Emphasis

	<i>Credits</i>
ACC 330 Intermediate Accounting I	3
ACC 331 Intermediate Accounting II	3
ACC 333 Cost Accounting	3
Upper-level ECO, MGT, MKT, GBA	3
	12
<i>Total core and emphasis credits</i>	33

Banking and Finance Emphasis

	<i>Credits</i>
BAN 253 Bank Management	3
ECO 363 Money and Banking	3
GBA 211 Business Law I	3
MGT 315 Financial Management	3
Two of the following:	
AEC 304 Farm Finance and	
Accounting	4
BAN 250 Principles of Bank Operations	3
BAN 251 Savings and	
Time Deposit Banking	3
BAN 252 Trust Functions and	
Services	3
	6-7
	18-19
<i>Total core and emphasis credits</i>	39-40

Data Processing Emphasis

	<i>Credits</i>
CSC 182 Introduction to Data	
Processing	3
CSC 240 Introduction to RPG	3
CSC 245 Introduction to COBOL	3
CSC 345 Advanced COBOL	3
CSC 250 Computer Operations	
Practicum	3
	15
<i>Total core and emphasis credits</i>	36

Retailing Emphasis

	<i>Credits</i>
MKT 270 Principles of Marketing	3
MKT 274 Professional Selling	3
MKT 371 Principles of Retailing	3
MKT 376 Advertising	3
	12
<i>Total core and emphasis credits</i>	33

Departmental Minors

Accounting

	<i>Credits</i>
ACC 230-231 Principles of Accounting I and II	6
ACC 330-331 Intermediate Accounting I and II	6
ACC 332 Accounting Systems and Control	3
Two accounting elective courses	6
	21

Economics

	<i>Credits</i>
ECO 260-261 Principles of Economics I and II	6
ECO 360 or 361 Intermediate Micro- or Macro- Economics	3
Three upper division economics electives	9
	18

Management

	<i>Credits</i>
ACC 230 Principles of Accounting I	3
MGT 312 Principles of Management	3
MGT 412 Personnel Management	3
MGT 415 Administrative Supervision	3
Three upper division management electives	9
	21

Marketing

	<i>Credits</i>
MGT 312 Principles of Management	3
GBA 210 Business Statistics I	3
MKT 270 Principles of Marketing	3
MKT 470 Marketing Management	3
MGT 473 Business Research	3
Three marketing elective courses	9
	24

Accounting Courses

ACC 230 Principles of Accounting I (3) i, ii, iii. Fundamental principles of accounting and their application; recording, classifying, and summarizing business transactions; analysis of balance sheet and income statement accounts. Prerequisite: A score of 14 or above on ACT math test, completion of GBA 116 with a grade of C or higher, or MAT 105.

ACC 231 Principles of Accounting II (3) i, ii, iii. Assembly and use of accounting data for managerial decision making; cost accounting; taxes; budgeting; cost-volume-profit analysis; cost of capital and traditional financial statement analysis. Prerequisite: ACC 230 with a grade of C or higher.

ACC 330 Intermediate Accounting I (3) i, ii, iii. Analysis and interpretation of fundamental processes, assets, and equity values with related revenue and expense aspects. Prerequisite: ACC 231 with a grade of C or higher.

ACC 331 Intermediate Accounting II (3) i, ii. Continuation of the critical study of balance sheet accounts and intensive analysis of financial statements. Prerequisite: ACC 330.

ACC 332 Accounting Systems and Control (3) ii (odd-numbered years). Design of accounting systems from pen-and-ink journals to electronic data processing, including forms design, internal control concepts, and other methods of control (accounting machines, microfilming, and cash registers); emphasizes billing, sales, purchases, and payroll procedures. Prerequisite: ACC 231.

ACC 333 Cost Accounting (3) i, ii, iii. Studies cost accounting procedures with emphasis on the basic theory and procedures of allocating materials, labor, and manufacturing expenses in job order and process cost systems, including standard costing, variance analysis, and c-v-p analysis. Prerequisite: ACC 231.

General Business (Non-business majors only)

	<i>Credits</i>
GBA 110 Business Organization	3
ACC 230 Principles of Accounting I	3
ECO 260 Principles of Economics I	3
GBA 211 Business Law I	3
MKT 270 Principles of Marketing	3
MGT 312 Principles of Management	3
Elective chosen from ACC 231 or ECO 261	3
	21

Additional Requirements for a Departmental Minor

Only students with a major outside the Department of Business and Economics will be granted a minor in General Business. Any student may qualify for the other minors. A minimum of a 2.00 grade point average in the required courses is necessary for the minor certification.

ACC 334 Budgets and Budgeting Control (3) ii (even-numbered years). Theory and procedures in the development of financial and operating budgets as managerial devices for profit planning and general budgetary control in business. Prerequisite: ACC 231.

ACC 335 Government and Institutional Accounting (3) i (odd-numbered years). Accounting principles and procedures relating to schools, hospitals, and other nonprofit institutions, and to cities, counties, and other governmental units. Prerequisite: ACC 231.

ACC 336 Tax Accounting (3) i, ii. Introduction to taxation, including both federal and state taxes to which many small businesses and individuals are subject; includes payroll, sales, and income taxes; partnership and corporate income taxation. Prerequisite: ACC 231.

ACC 430 Advanced Accounting Problems (3) i. Emphasizes problems facing partnership and corporate business organizations; forms, maintenance, and expansion of the business organization (mergers and consolidated statements and contraction of the business organization, liquidations, and reorganizations). Prerequisite: ACC 331.

ACC 431 Seminar in Accounting Theory (3) ii. Familiarizes students with the current accounting issues and literature; includes development of accounting theory, accounting concepts, and objectives of accounting. Requires students to research basic accounting issues. Prerequisite: ACC 331 and 333.

ACC 432 Advanced Cost Accounting (3) i (even-numbered years). Studies cost accounting as a tool for management in the decision-making process, including quantitative methods, such as linear programming, statistical analysis, quality control, PERT, and queuing, that relate to the total business structure. Prerequisite: ACC 333; GBA 210 recommended.

ACC 433 Auditing (3) i, ii. Verification of records, valuation and analysis of accounts, and presentation of conditions. Practical audit cases. Prerequisite: ACC 331.

ACC 439 Advanced Tax Accounting (3) (on demand). Special problems in the area of individual, partnership, and corporate taxation; includes sales and disposition of property, pension plans, liquidation, and reorganization of business organizations; tax planning and introduction to federal estate and gift taxation. Prerequisite: ACC 336.

Banking Courses

BAN 250 Principles of Bank Operations (3) ii (at night). Fundamentals of bank functions presented in a descriptive fashion from a broad and operational perspective.

BAN 251 Savings and Time Deposit Banking (3) ii (even-numbered years at night). Historical development of savings institutions and basic economic functions of the savings process; reviews the economics of the savings process, emphasizing differences between financial savings and savings that lead to capital formation; examines different types of financial savings to describe the system of financial flows of income to capital investment.

BAN 252 Trust Functions and Services (3) i (odd-numbered years at night). Introduction to the services and duties involved in trust operations; clarifies distinction between business and legal aspects of trust functions.

BAN 253 Bank Management (3) i (at night). New trends in the philosophy and practice of bank management; features case studies as an instructional device to provide new as well as experienced bank personnel with a working knowledge of bank management.

Business Education Courses

BUS 455 Methods of Teaching Business Subjects (3) i. Studies the methods and activities for teaching business education in the secondary school. To be taken before SED 409. Prerequisite: Consent of advisor or SED 202 and 203.

Economics Courses

ECO 101 Current Issues in the Economy (3) i, ii, iii. Introductory course covering current economic events and problems facing our society. Class discussion of energy, unemployment, poverty, inflation and pollution among other topics is based upon a series of magazine and newspaper

articles selected from a wide range of sources and arranged by topic. The process of economic thinking is then used to analyze the various parts of each issue as well as possible solutions.

ECO 160 Consumer Economics (3) i, ii, iii. Assists students in becoming more rational consumers in such areas as housing, transportation, insurance, and other consumer items; covers techniques of financial planning, budgeting, and a variety of investments. Does not count as an economics elective toward a major in economics.

ECO 260 Principles of Economics I (3) i, ii, iii. Introduction to basic principles of economics with emphasis on the analysis of unemployment, GNP, inflation, and public debt; discusses fiscal and monetary theories and public policies.

ECO 261 Principles of Economics II (3) i, ii, iii. Continuation of economic fundamentals but with emphasis on supply and demand analysis, factor markets, different market structures, international economics, and various economic problems. Prerequisite: ECO 260.

ECO 360 Intermediate Macroeconomics (3) ii. Intermediate-level theory course; examines determinants of GNP, employment, and inflation; emphasizes economic model building (both classical and Keynesian) and the use of monetary and fiscal policies to control the business cycle and inflation. Prerequisite: ECO 261.

ECO 361 Intermediate Microeconomics (3) i. Theoretical approach to the behavior of the individual buyer and seller in the marketplace; includes consumer demand theory, costs of production, and market structures ranging from pure competition to monopoly. Prerequisite: ECO 261.

ECO 362 Public Finance (3) ii. Studies principles of taxation and public expenditures, impact of fiscal policy on economic and social activity, and recent trends in public finance at the federal, state, and local levels. Prerequisite: ECO 261.

ECO 363 Money and Banking (3) i. Continuation and expansion of money and banking concepts introduced in ECO 260; includes money, banks, and other financial intermediaries, the Federal Reserve System, concepts of monetary control, monetary policy, and international banking. Prerequisite: ECO 260 and ACC 230.

ECO 364 Labor Economics (3) ii (even-numbered years). Introductory course dealing with the institutional aspects of the American labor force, its organization, wage and employment theory, the economic role of bargaining, and the basic ingredients of public policy toward labor organizations. Prerequisite: ECO 260.

ECO 365 Government Regulation of Business (3) i. Analyzes the legislative and legal control of business and its implications for the various economic components of the American economy. Prerequisite: ECO 261.

ECO 367 Urban and Regional Economics (3) ii (odd-numbered years). Examines economic growth in the United States with emphasis on the problems of economic growth in the Midwest; looks at factors instrumental in determining economic growth in various segments of the economy; considers urban problems associated with growth. Prerequisite: ECO 261.

ECO 460 Business Cycles and Forecasting (3) i (odd-numbered years). Studies the cyclical fluctuation of the economy by means of theoretical, graphical, and quantitative methods and use of basic economic and business forecasting techniques. Prerequisite: ECO 261 and MGT 210.

ECO 461 International Economics (3) ii (odd-numbered years). Introduction to the study of the theory of international economics with emphasis on international trade, flows of funds, foreign exchange, balance of payments, and world economic interdependence. Prerequisite: ECO 261.

ECO 462 History of Economic Thought (3) ii (even-numbered years). Development of various schools of economic thought; includes classical, neoclassical, institutional, Keynesian, and neo-Keynesian theories. Prerequisite: ECO 261.

ECO 463 Comparative Economic Systems (3) i (even-numbered years). Analytical study of the major alternative economic systems — capitalism, socialism, planned economies, and mixed capitalism — with emphasis on the different economic and social problems associated with each type. Prerequisite: ECO 261.

ECO 466 Current Economic Problems (3) (on demand). Analytical study of various problems of current interest in economics. Course generally offered by arrangement only. Prerequisite: Senior standing.

General Business Courses

GBA 110 Business Organization (3) i, ii, iii. Introduction to the various activities and organizational structures in the business community; a general survey course which includes aspects of accounting, economics, management, and marketing.

GBA 116 Business Mathematics (3) i, ii, iii. Introduction to the daily mathematical problems that arise in business; designed for students who need additional experience in the application of basic business mathematical skills.

GBA 210 Business Statistics I (3) i, ii. Studies descriptive and inductive statistical methods as they apply to decision making in business and economics. Prerequisite: MAT 105.

GBA 211 Business Law I (3) i, ii. Introduction to the legal environment of business; examines the constitutional and historical foundations of the American legal system; emphasizes contracts, personal property, bailments, and sales.

GBA 215 New York Viewpoint (2). Designed to make use of the unparalleled learning resources of New York City. The tour includes visits to both major stock exchanges, the Federal Reserve Bank, commercial banks and other Wall Street financial institutions, and corporate headquarters of companies listed among *Fortune's* 500 largest.

GBA 311 Business Law II (3) i, ii. A continuation of MGT 211 with emphasis on negotiable instruments and security devices under the Uniform Commercial Code; discusses partnerships, corporations, and other related areas. Prerequisite: GBA 211.

GBA 313 Business Statistics II (3) (on demand). Continuation of the study of inductive statistical analysis; emphasizes the quantitative approach to management science concepts. Prerequisite: GBA 210.

GBA 316 Principles of Insurance (3) ii (odd-numbered years). Nature and uses of insurance, structure, management, and regulation of insurance carriers; economic risk; principles of personal property, life, and casualty insurance.

GBA 319 Business Communications (3) i, ii. Designed to meet the needs of business for better communications, written and oral; covers principles of research, organization, and presentation of written memoranda, letters, and reports; oral presentations help develop necessary skills required in a business environment.

GBA 385 Cooperative Work Experience (3-5) (On demand). Individualized study related to full-time employment in a position related to the student's major. Anticipated learning outcomes determined by contract prior to enrollment. Credit allowed based on length of work experience and breadth of research project assigned. Prerequisite: Completion of professional core and major application and acceptance of contract proposal by department chairperson.

GBA 411 Investment Analysis (3) ii. A critical approach to security analysis; presents means of securing information about securities so as to permit dependable decisions to be made concerning their value and attractiveness at given prices. Prerequisite: GBA 210 and MGT 315.

GBA 413 Real Estate (3) ii (even-numbered years). Principles of land evaluation and development; considers problems relating to the purchase, transfer, lease, financing, and management of land and buildings.

Management Courses

MGT 312 Principles of Management (3) i, ii. Studies the objectives and functions of a business enterprise with emphasis upon management principles of planning, organizing and controlling the organization. Prerequisite: ACC 230.

MGT 315 Financial Management (3) i, ii. Introductory survey of the issues which face the financial manager of a firm; discusses liquidity versus profitability decisions, capital budgeting, planning needs and controlling uses of funds as well as the methods of procuring funds. Prerequisite: ACC 231 and MAT 105.

MGT 410 Small Business Management (3) i. Deals with all major aspects of starting and managing a small business; includes factors in success and failure; methods of becoming a small business owner; capital requirements; sources of finance; employee and supplier relations; sales promotion; and control. Prerequisite: MGT 312 and MKT 270.

MGT 412 Personnel Management (3) ii. Policies and practices in personnel management, such as job analysis, selection of employees, placement training, employee services and industrial relations. Prerequisite: MGT 312.

MGT 415 Administrative Supervision (3) i. Examines the human problems in the supervisor-subordinate relationship; principles are relevant to all types of organizations—business, service, government. Prerequisite: MGT 312.

MGT 416 Production Management (3) i. Development of scientific management principles and methods of organization and management in manufacturing; includes plant location, scheduling, operating, and information systems. Prerequisite: GBA 210 and MGT 312.

MGT 417 Credit Management (3) i. Designed to meet the needs of people who are now—or who will be—involved with the management of credit and collection activities of business organizations (or of their own personal affairs); deals with the types, regulation, management, analysis, and control of commercial and consumer credit.

MGT 419 Business Policy (3) i, ii. Examines current problems and issues facing business in a changing society. Prerequisite: MGT 312, MGT 315, and senior standing.

MGT 420 Small Business Practicum I (3) i, ii. Provides an opportunity to address real problems of the business entrepreneur by integration of concepts developed in accounting, economics, management, and marketing courses. Student teams act as management consultants to local business entrepreneurs. Prerequisite: Completion of freshman/sophomore and professional cores, senior standing, and consent of department chairperson.

MGT 421 Small Business Practicum II (3) i, ii. Continuation of MGT 420, permitting the student an opportunity for an additional 3 hours of experience with real problems of the business entrepreneur. Prerequisite: MGT 420 and consent of department chairperson.

MGT 473 Business Research (3) ii. Practical application of research techniques to the decision-making process in the business environment; evaluates alternative sources of information, the use of statistical methods, and the projection of viable options. Prerequisite: GBA 210.

Marketing Courses

MKT 270 Principles of Marketing (3) i, ii. Basic course defining the role of the marketer and marketing within our society and economy; examines all interacting forces within the firm, dealing with price, promotion, distribution, personal selling, and product and economy aspects.

MKT 274 Professional Selling (3) i, ii. Studies the practical methods, principles, procedures, and policies of a professional salesperson.

MKT 371 Principles of Retailing (3) ii. Practical study of the underlying principles of retail store management with emphasis on basic retailing activities of buying, merchandising, and promotion. Prerequisite: MKT 270.

MKT 372 Physical Distribution (3) ii. Analyzes the physical distribution functions in marketing with emphasis on transportation methods, material handling, and facility location as elements of an integrated system. Prerequisite: MKT 270.

MKT 375 Industrial Marketing (3) (on demand). Analyzes the structure of marketing for industrial and wholesaling activities; studies industrial selling, warehousing, and wholesaling problems. Prerequisite: MKT 270.

MKT 376 Advertising (3) i. Surveys the fundamentals of market promotion, including advertising media; discusses creative advertising, advertising agencies, and the advertising campaign. Prerequisite: MKT 270.

MKT 377 International Marketing (3) (on demand). Overall view of the structure and approaches to international marketing; emphasizes methods of evaluating and implementing international marketing opportunities; in addition, considers cultural, political, legal, and financial factors in relation to the total international marketing mix. Prerequisite: MKT 270.

MKT 378 Product Strategy (3) i. Covers product management, product development, placement, maintenance, and withdrawal; emphasizes application of marketing techniques to new products. Prerequisite: MKT 270.

MKT 470 Marketing Management (3) i. Presents timely examinations of today's management of the marketing function. With emphasis on the pragmatic application of marketing concepts, the student assumes the role of business practitioner and through either leadership or participation is

given ample opportunity to integrate the marketing mix. The course is attractive to persons concerned with where marketing is and where it is going. Prerequisite: MGT 312 and 9 hours in marketing.

MKT 471 Consumer Behavior (3) i. Considers the influences on consumer motivation and behavior; discusses how the behavioral sciences relate to marketing. Prerequisite: MKT 270.

MKT 472 Sales Management (3) ii. Application of sales management concepts to administration, planning, training, and acquisition of the sales force for a business. Prerequisite: MKT 270.

MKT 474 Marketing Seminar (3) ii. Seminar on case situations dealing with various strategy alternatives involved in marketing problem solving; emphasizes the marketing mix and the use of marketing research and decision making. Prerequisite: Senior standing and 12 credits in marketing.

Department of Criminal Justice

L. Maxwell, *chairperson*

The Department of Criminal Justice offers two separate degrees for the student with interests in the criminal justice area. These degrees are:

Associate of Science: offered with either a major in criminal justice or a major in corrections.

Bachelor of Science: offered with a major in criminal justice.

The criminal justice program seeks to prepare the student for entry into or advancement within the criminal justice system in any of the many areas existing within the career field. Such areas include:

- Investigative agencies: Federal, state, county, and local agencies including private investigative agencies.
- Corrections agencies: Institutions and probation/parole systems within federal, state, and county governmental levels.
- Industrial security: Corporate interests nationwide.

Associate of Science Degree Requirements

A major in criminal justice requires the completion of the following specific courses: LAW 100, 120, 140, 160, 180, 200, 220, 260, 280, 290; SOC 110; PSC 101; and PSY 101, plus 9 credits of restricted electives from the following courses: SOC 230, 310, 320, 350, 400, 430; PSC 110, 320, 330, 420; PSY 201, 309; LAW 110, 150, 205, 210, 230, 250, 270; SEC 140 or 141; ENG 108.

A major in corrections requires the completion of the following specific courses: LAW 100, 110, 160, 200, 205, 210, 215, 230, 250, 270, 290; SOC 110, 230; PSC 101; and PSY 101, plus 6 credits of restricted electives from the following: SOC 310, 400, 430; LAW 150.

Bachelor of Science Degree Requirements

Students enter the baccalaureate program in criminal justice after completion of an accredited associate degree program, preferably in a criminal justice area. The two-year program may be completed at MWSC or at another accredited college. The major in criminal justice consist of 43 credits in criminal justice course work plus 30 credits of course work in related areas. The following specific courses are required: LAW 100, 110, 150, 160, 180, 200, 215, 220, 260, 290, 470 (two semesters); PSC 101, 110; PSY 101, 210, 309; SOC 110, 230, 310, 400, 430. Also required are 9 credits of elective criminal justice course work from the following: LAW 120, 140, 205, 210, 230, 250, 270, 280, 450, 490.

Criminal Justice Courses

LAW 100 Introduction to Criminal Justice (3) i, ii, iii. A survey of the philosophical and historical background of the criminal justice system as it relates to the individual; reviews the principles underlying social organization control devices with an emphasis upon such legal systems

as the criminal courts, corrections, and law enforcement; designed to provide general knowledge about the concept and causes of crime, the varying goals and objectives of the criminal justice system, and an assessment of specific role performance of various members of the criminal justice system, including major aspects of civil process.

LAW 110 Juvenile Delinquency (3) i, ii. Studies the delinquent juvenile as an individual and the impact on society; investigates delinquency, causation, the role of the law enforcement officer, the juvenile officer, the juvenile court, and juvenile corrections.

LAW 120 Patrol Operations (3) i, ii. Survey of the responsibilities and duties of the uniformed patrol; special emphasis on patrol procedures, mechanics of arrest, search, and seizure, interpretation and evaluation of information received on patrol, and accurate report writing.

LAW 140 Traffic Control and Accident Investigation (3) i, ii. Introduction to traffic control and accident investigation in modern cities; reviews principles of organizing and administering police units for traffic enforcement, accident prevention, and safety education; presents basic techniques of accident investigation, analysis, and interpretation.

LAW 150 Criminal Justice Report Writing (3) ii. Interdisciplinary approach toward precise report writing in criminal justice; emphasizes the criminal justice terminology. Students will be required to demonstrate various report formats and be capable of writing precise and grammatically correct reports. Prerequisite: ENG 104 or consent of instructor.

LAW 160 Principles of Investigation (3) i, ii, iii (odd-numbered years). Introduces modern investigative methodology; emphasizes the importance of information, interrogation, and instrumentation in the solution and preparation of criminal cases for trial. Prerequisite: LAW 100.

LAW 180 Public Service and Community Relations (3) i, iii (odd-numbered years). Survey of the public service agency and its role in the community; emphasizes the importance of the individual and his or her relationship to the public served; outlines a general program of community relations to be undertaken by public service agencies. Prerequisite: LAW 100.

LAW 200 Penology and Corrections (3) ii. The origins and theories of punishment and the prison system; introduces principles and programs of institutional correction and special problems in administration; reviews modern recommendations for improvement of the system. Prerequisite: 6 credits in criminal justice.

LAW 205 Institutional Procedures, Jails, and Detention (3) ii. The function of the custodial staff, with special emphasis on the correctional officer; reviews institutional procedures, including reception, classification, program assignment, release procedures, and implementation of possible jail programs; examines juvenile detention facilities and practices.

LAW 210 Legal Rights of the Confined (3) i. Overview of the legal rights of inmates, both pre- and postconviction; analyzes administrative restrictions relating to inmates' rights; reviews legal and practical remedies to insure these rights; discusses the relationship between the granting of inmates' legal rights and probable rehabilitation. Prerequisite: LAW 100.

LAW 215 Essentials of Interviewing (3) i, ii. Examines fundamental concepts of verbal communication applied to interview situations within the criminal justice system; emphasizes interviewing theories and techniques, legal aspects of interviewing and interrogation, and actual and mock interview experiences. Prerequisite: Introductory speech course.

LAW 220 Police Administration (3) i, iii (even-numbered years). Introductory survey of current police administrative methodology; reviews the organization of the police service, police functions, principles of police management, operational services within police agencies, and the role of the police administrator in personnel assignment and evaluation. Prerequisite: 6 credits in criminal justice.

LAW 230 Contemporary Practices in Corrections (3) i. Modern trends in corrections, including community-based programs in work release, halfway houses, contract program planning, and the therapeutic community and treatment team concept. Prerequisite: LAW 100.

LAW 250 Prison Organization and Operation (3) ii. Studies the organization of various institutions; examines treatment, custody, and support activities as entities and in relation to each other. Students construct an organization chart for a model prison and functional charts for its departments. Prerequisite: LAW 200.

LAW 260 Criminal Law (3) i, iii (even-numbered years). Explores the origin, development, and classification of substantive criminal law; reviews the rules of evidence of particular importance at the operational level of law enforcement and criminal procedures in arrest, force, search, and seizure. Prerequisite: 9 credits in criminal justice.

LAW 270 Probation and Parole (3) ii. Examines probation and parole alternatives to confinement, and their effectiveness in curbing future criminal behavior. Prerequisite: LAW 200.

LAW 280 Criminalistics (3) ii. Introductory survey of modern methodology for police laboratories; reviews the need for professional investigations, and introduces the means of achieving high degrees of proficiency in the field of scientific criminal inquiries. Prerequisite: 15 credits in criminal justice.

LAW 290 Practicum in Criminal Justice (3) i, ii, iii. Designed to provide students with practical experience in a supporting capacity within a local criminal justice agency. Prerequisite: A completed major application in criminal justice or corrections and consent of instructor.

LAW 450 Independent Study in Criminal Justice (1-5) i, ii, iii. Investigation of selected problems or topics on an individual conference basis. Application for this course must be made to the department chairperson well in advance of registration. Prerequisite: Consent of department chairperson.

LAW 470 Senior Seminar in Criminal Justice (2) i, ii. Individual reports, group discussion, and guest speakers on selected topics. Must be taken both semesters during the senior year for a total of 4 credits. Prerequisite: Senior status in criminal justice and completed major application.

LAW 490 Advanced Practicum in Criminal Justice (3-6) i, ii, iii. Field experience under the supervision of trained professionals in top-level criminal justice positions. Application for placement must be made at least nine weeks before registration for this course. Prerequisite: Senior status in criminal justice and completed major application.

Department of Engineering Technology

Dr. V. Varma, *chairperson*

The Department of Engineering Technology offers two- and four-year programs in engineering technology with concentrations in either construction or electronics. Preprofessional engineering and architecture transfer programs are also offered in cooperation with various area universities.

Engineering Technology

Engineering technology has been defined as that part of the technological field which requires the application of scientific and engineering knowledge and methods combined with technical skills in support of engineering activities; it lies in the occupational spectrum between the craftsperson and the engineer, at the end of the spectrum closest to the engineer.

Engineering technology is oriented less toward theory and more toward practical applications. The Associate of Science degree prepares the student to be an engineering technician, and the baccalaureate degree program prepares the student to be an engineering technologist. Both are designed to prepare students to work in meaningful jobs.

Engineering Transfer Program

Engineering has been defined as the profession in which a knowledge of the mathematical and natural sciences gained by study, experience, and practice is applied to develop ways to utilize economically the material and forces of nature for the benefit of mankind.

The engineering transfer program is closely coordinated with the University of Missouri-Columbia and the University of Missouri-Rolla.

The exact program followed will depend on the specialized area (civil, chemical, mechanical, electrical, etc.) and the engineering school to which the student plans to transfer. Also, many students are not prepared for calculus their first semester and special programs must be arranged. Therefore, an advisor in the Department of Engineering Technology will set up a suitable program for each preengineering student.

Architecture Transfer Program

The architecture transfer program is closely coordinated with the College of Architecture and Design, Kansas State University, Manhattan, Kansas. An advisor in the Department of Engineering Technology will set up a suitable program for each prearchitecture student.

Bachelor of Science in Technology Degree Requirements

Specific requirements are as follows for the Bachelor of Science in Technology degree with the major listed.

Construction Engineering Technology

EGT 110, 202, 204, 250, 260, 356; CET 105, 252, 256, 260, 275, 307, 308, 354, 358, 360, 408, 458, 470, 480; MAT 105, 106, 204, 205; CSC 188; PHY 110; ESC 111.

Electronic Engineering Technology

EGT 103, 110, 240, 250; EET 220, 230, 270, 300, 320, 330, 340, 350, 360, 370, 420, 430, 460, 480; MAT 105, 106, 204, 205; CSC 188; PHY 110, 111; CHE 101.

Associate of Science Degree Requirements

Specific requirements are as follows for the Associate of Science degree with the major listed.

Construction Engineering Technology

EGT 110, 202, 204, 250, 260; CET 105, 252, 256, 260, 275, 307, 354; MAT 105, 106, 204; PHY 110.

Electronic Engineering Technology

EGT 103, 110, 240; EET 210, 220, 230, 270, 300, 320, 340; MAT 105, 106, 204; PHY 110.

Engineering Technology Courses

EGT 103 Electrical Systems (3) i, ii. Discusses electrical and electronic terminology including component names, electrical units, instrumentation, and devices; studies characteristics, electrical measurements, electrical circuits, and the application of electricity to other areas; emphasizes power generation and distribution and the electrical code. Two hours lecture, three hours lab. Prerequisite: MAT 095 or consent of instructor.

EGT 110 Engineering Graphics (3) i, ii. Introduction to the fundamentals of technical communication through graphics; includes technical sketching, standard projection methods, sections, auxiliary views, lettering, basic descriptive geometry, and conventional practices; uses current engineering and other technical problems to aid in development of graphic problem-solving skills. One hour lecture, four hours lab.

EGT 202 Surveying I (3) i. Introduction to the basic principles of plane surveying with applications to engineering and construction problems; uses laboratory periods for in-the-field applications of introductory surveying techniques. Two hours lecture, three hours lab. Prerequisite: MAT 105, 106.

EGT 204 Architectural Graphics (3) ii. Studies residential, commercial, and industrial building design, with emphasis on environmental, aesthetic, and structural harmony; develops drafting techniques, use of standard reference data, and blueprint reading skills. One hour lecture, four hours lab. Prerequisite: EGT 110 or consent of instructor.

EGT 240 Electrical Circuits (3) ii. Circuit analysis provides a mathematical approach for solving the current flows and voltages in both AC and DC circuits; includes mesh analysis, nodal analysis, superposition, voltage, current divider rules, and Thevenin's theorem, Norton's theorem, and Millman's theorem; analyzes R-C and R-L circuits for transient conditions; uses practical applications whenever possible for illustrations, and the computer as a labor-saving device. Two hours lecture, three hours lab. Prerequisite: Credit or concurrent enrollment in EGT 103; MAT 105 and 106.

EGT 250 Technical Report Writing (2) i. Studies various forms of reports; includes practical projects in preparing reports of various lengths and degrees of complexity and oral presentation of report material; emphasizes clear communication of technical ideas. Two hours lecture. Prerequisite: ENG 104.

EGT 260 Statics (3) i. Fundamentals of statics; static equilibrium; topics of study include elements of statics in two and three dimensions; laws of equilibrium applied to structures and machines. Three hours lecture. Prerequisite: Concurrent registration in MAT 204.

EGT 300 Dynamics (3) (on demand). Motion of a particle; kinetics of rigid bodies; work and energy; impulse and momentum; impact. Three hours lecture. Prerequisite: EGT 260.

EGT 340 Thermodynamics (3) ii (on demand). Fluid properties, work and heat, first law, second law, entropy, applications to vapor, and ideal gas processes. Three hours lecture. Prerequisite: PHY 210 or consent of instructor.

EGT 356 Fluids and Hydraulics (3) ii. Introduction to fluid mechanics including fluid statics and elementary fluid dynamics; includes energy equations of steady flow, steady flow of incompressible fluids in pipes, and open channel flow. Three hours lecture. Prerequisite: MAT 205, PHY 110.

EGT 390 Technological Projects (1-3) ii, iii. Intended for the advanced student whose project would enrich the educational experience. Approval by the department chairperson is required at least two weeks before the end of the previous term.

EGT 490 Technological Practices (1-3) iii. Intended for the advanced student with a job which reinforces and extends knowledge and skills. Approval by the department chairperson is required at least two weeks before the end of the previous term.

Construction Engineering Technology Courses

CET 105 Basic Construction Materials (2) i. Introductory study of materials used in the construction industry. Includes wood, concrete, masonry, steel and other metals, glass, plastics, bitumens, insulating and roofing materials, protective and decorative coatings, mechanical and electrical materials, and acoustical materials. Two hours lecture.

CET 252 Surveying II (3) ii. Intermediate and advanced surveying techniques and procedures with applications to engineering and construction problems; includes mapping, hydrography, and photogrammetry; uses laboratory periods for in-the-field application of techniques. Two hours lecture, three hours lab. Prerequisite: EGT 202.

CET 256 Bituminous, Concrete, and Soils (3) ii. Studies the properties and engineering applications of prime materials used in structural and roadway construction, including classification, basic quality control, and construction practices used with respect to asphalt, concrete, and soils. Two hours lecture, three hours lab. Prerequisite: Concurrent registration in MAT 105, 106.

CET 260 Mechanics of Materials (3) ii. Axial, torsional, bending, and combined stress and strain analysis; mechanical properties and applications for static, fatigue, creep, and impact conditions; emphasizes beam stresses and deflections, columns, and riveted and welded connections. Two hours lecture, three hours lab. Prerequisite: EGT 260, MAT 204.

CET 275 Mechanical and Electrical Installations (4) ii. Principles of water supply and treatment, plumbing, sanitation systems, heating, ventilation and air conditioning including solar energy; electrical and lighting systems, power lines, electrical code, safety and design. Four hours lecture. Prerequisite: CET 105.

CET 307 Structural Drawing (2) i. Proper selection and graphic representation of structural components, assemblies, and connections for wood, steel, and concrete construction; considers load-bearing ability and other strength factors, following current industry standards. One hour lecture, three hours lab. Prerequisite: EGT 204.

CET 308 Structural Analysis (3) i. Introduction to various methods used in the elastic analysis of statically determinate beams, trusses, frames, and arches, and to statically indeterminate structures. Three hours lecture. Prerequisite: EGT 260, CET 260.

CET 354 Construction Estimating (3) ii. Introduction to construction estimating; emphasizes accurate and systematic analysis of working drawings and specifications as they pertain to quantity takeoffs. Three hours lecture. Prerequisite: CET 105.

CET 358 Structural Steel Design (4) ii. Introduction to elementary structural steel design; stresses design of individual members and their connections as dictated by various specifications (AISC, AASHTO, etc.). Laboratory includes an introduction to the use of the computer in the areas of structural analysis. Three hours lecture, three hours lab. Prerequisite: CET 308.

CET 360 Construction Management (3) i. Introduction to the construction manager concept. Roles of the contractor, superintendent, designer, owner and inspector. Project financing and accounting, labor relations, bonding and insurance. Construction contracts and specifications. Prerequisite: CET 354.

CET 408 Reinforced Concrete Design (4) I. Introduction to the design of reinforced concrete elements and structures; includes beams, columns, slabs, and footings; designs are based on the current ACI code provisions for elastic and strength design. Three hours lecture, three hours lab. Prerequisite: CET 308 or consent of instructor.

CET 458 Soil Mechanics (4) I. Studies the properties of soils with applications in civil engineering design and construction. Three hours lecture, three hours lab. Prerequisite: CET 260.

CET 470 Current Topics in Heavy Construction (2) II. Study of selected topics, such as underground construction, underpinning, formwork and other project support requirements; evaluation and review of current practices in heavy construction. Prerequisite: Senior standing or consent of instructor. Two hours lecture.

CET 480 Construction Planning and Scheduling (3) I. Principles and techniques used to plan construction and schedule project activities. Networks, bar charts, computer techniques, productivity, construction time and cost parameters. Prerequisite: CET 360. Three hours lecture.

Electronic Engineering Technology Courses

EET 210 Electronic Fabrication (3) II. The student selects a construction project subject to the approval of the instructor; only routine design or redesign is expected, with the emphasis on fabrication. Two hours lecture, three hours lab. Prerequisite: At least 10 credits in electronics.

EET 220 Instruments and Measurements (3) II. In-depth study of electronic circuitry and equipment usage for circuit evaluation, maintenance and repairs in most electronics facilities; equipment includes oscilloscopes, signal sources, meters (digital and analog), bridges, power supplies, digital frequency counters and special purpose instruments; discusses calibration requirements and techniques; the student demonstrates some electronic test instruments. Two hours lecture, three hours lab. Prerequisite: Concurrent registration in EET 230, EGT 240.

EET 230 Introduction to Electronics (4) I. The theory of operation of various solid state devices: diodes, transistors, FETs, SCRs, and monolithic integrated circuits. Laboratory training sessions include evaluation of many solid state devices. Two hours lecture, three hours lab. Prerequisite: EGT 103.

EET 270 Electronic Amplifiers (4) I. Studies complete electronic circuits, including rectifiers, regulators, SCR controls, amplifiers using transistors and FETs, oscillators, waveshaping circuits, clippers, limiters, and basic logic. Laboratory analyzes power supplies, filters, regulators, SCR controls, transistor characteristics, FET characteristics, push-pull amplifiers, oscillators, amplifiers, and logic gates. Three hours lecture, three hours lab. Prerequisite: EET 230.

EET 300 Digital Electronics (4) I. Logic gates, combinational logic, DeMorgan's theorem, and logic minimization; counters, multiplexers, and other MSI logic functions. Three hours lecture, three hours lab. Prerequisite: EET 230 or consent of instructor.

EET 320 Introduction to Microcomputers (3) II. Studies microcomputers, hardware, and programming; processors, input-output devices, memories, machine language, and assembly language programming. Two hours lecture, three hours lab. Prerequisite: EET 300.

EET 330 Microcomputer Systems (3) I (odd-numbered years). Studies interfacing to digital and analog devices; emphasizes hardware, covering D/A and A/D converters, and other I/O devices. Two hours lecture, three hours lab. Prerequisite: EET 320 or consent of instructor.

EET 340 Communications Systems (4) II. Analyzes various types of circuits used in equipment such as AM and FM receivers and transmitters, television receivers and transmitters, and microwave equipment; studies antennas and transmission lines. Three hours lecture, three hours lab. Prerequisite: EET 270.

EET 350 Advanced Communications Systems (3) II (even-numbered years). Studies communications theory emphasizing the relationship of information transmission with band width and noise; studies further transmission line theory, electromagnetic fields, and wave guides. Three hours lecture. Prerequisite: EET 340, MAT 205.

EET 360 Network Analysis (3) I. Advanced study of steady state network analysis and transients by classical and Laplace methods with applications to special topics in the fields of power and electronics. Three hours lecture. Prerequisite: EGT 240, MAT 205.

EET 370 Microwave Systems (3) I (odd-numbered years). Microwave components, circuits, and measurement techniques; distributed elements, waveguides, microwave links, radar, and similar systems. Two hours lecture, three hours lab. Prerequisite: EET 340.

EET 420 Control Systems (3) II (odd-numbered years). The application of electronic control circuits to industrial needs; includes control of manufacturing processes, measurements and counting of components, and servo control. Two hours lecture, three hours lab. Prerequisite: EET 280, EET 300.

EET 430 Advanced Electronics (4) I. Advanced treatment of discrete and integrated circuit electronics; explores small-signal, large-signal, and digital circuit topics beyond the level of EET 270 and EET 300. Three hours lecture, three hours lab. Prerequisite: EET 270, EET 300.

EET 460 Rotating Machinery (4) I (even-numbered years). Construction, theory of operation, and application of various types of AC and DC motors and generators, synchros, servo systems, and motor controllers; studies mathematical computations dealing with motor efficiency, power requirements, horsepower, torque, and power factor correction. Laboratory explores various types of AC and DC motors and generators. Three hours lecture, three hours lab. Prerequisite: EGT 240.

EET 480 Design and Fabrication (3) II. With instructor's approval, the senior student selects an electronic system or subsystem to design, drawing on basic electronic background, and builds a functional prototype to demonstrate the design concept; requires a written paper which supports the project demonstrating research techniques and the ability to document sources. Two hours lecture, three hours lab. Prerequisite: 30 credits in electronics courses.

Program in Lawyers' Assistant

The Program in Lawyers' Assistant is designed to prepare individuals to enter or advance in careers related to legal services. Career opportunities include positions with law firms, banking institutions, real estate agencies, local, state, and federal prosecuting attorneys, title companies, and municipal legal departments.

Students graduating from the program must:

- Satisfactorily complete all courses required in the program.
- Correctly utilize legal and resource material to perform legal research and analysis.
- Correctly apply substantive legal concepts to the drafting and preparation of legal documents.
- Correctly identify and explain the types of functions performed by a legal assistant.
- Explain the role of the legal assistant working in a law office.
- Identify ethical issues and rules that the legal assistant must understand and follow when working under an attorney's supervision.
- Perform the functions of a legal assistant under the supervision of a practicing attorney.

Degree Requirements

An Associate of Science degree with a major in lawyers' assistant requires completion of the following courses: LAT 100, 110, 130, 160, 190, 210, 240, 260, 270, 290; ENG 108; LAW 215; ACC 230; PSC 101; MGT 211 and 311; CSC 182; and PSY 101.

A Certificate with a major in lawyers' assistant requires the completion of the following specific courses: LAT 100, 110, 130, 160, 290; ENG 104; ACC 230; and PSY 101, as well as 3 credits of restricted electives from the following courses: LAT 215, MGT 211, LAT 190 or 210, plus 6 credits of restricted electives from the following courses: LAT 240, 260, 270; MGT 211 or 311.

Lawyers' Assistant Courses

LAT 100 Introduction to Legal Services (3) I, II. Introduction to the legal system with emphasis upon the various fields of law, the court system, federal, state, and local, the role of the lawyer and lawyers' assistant, and the ethical and professional practice standards applicable to lawyers and assistants.

LAT 110 Legal Bibliography and Brief Writing (3) I. Introduces the law library and the processes of legal research; emphasizes the use of research materials, briefs of cases, footnoting, showing citations, drafting of pretrial documents, and other fact gathering related to the preparation for trial.

LAT 130 Real Property Law (3) II. Studies the law of real property; emphasizes the common types of real estate transactions and conveyances, research of and practice in the drafting of contracts, deeds, leases, deeds of trust, forms of ownership, rights of creditors, and consequences of ownership.

LAT 160 Evidence (3) II. Order of proof, form of question, opinions, cross-examination, impeachment, objections, competency, privileges, relevancy, demonstrative evidence, best evidence rule, parole evidence rule, hearsay, burdens of proof and persuasion, judicial notice. Prerequisite: LAT 100.

LAT 190 Estates and Trust Administration (3) I. Studies the laws applicable to decedents' estates and common forms of wills and trusts; examines the role and jurisdiction of the Missouri Probate Court as it relates to the administration of estates; emphasizes will drafting, incompetents' estates, and probate proceedings and procedures.

LAT 210 Tort and Insurance Law (3) I. Studies the principles of the law of torts and insurance; emphasizes the practical aspects of tort and insurance claim investigation, research, and preparation of pleadings.

LAT 240 Business Organization and Regulation (3) II. Studies the laws related to the formation and regulation of business entities; emphasizes practical research and projects related to legal services provided to developing and ongoing business organizations.

LAT 260 Taxation (3) II. Studies taxation at the federal, state, and local levels; emphasizes income, estate, gift, and fiduciary taxation, the preparation of tax returns, and other tax-related documents. Prerequisite: LAT 190.

LAT 270 Domestic Relations (3) II. Studies the legal aspects of family relationships; emphasizes the laws concerning marriage, divorce, separation, child support, adoption, and guardianship. Prerequisite: LAT 100.

LAT 290 Lawyers' Assistant Practicum (3-5) II, III. Provides the student with the opportunity to apply formal education in actual work situations. The student will work in a position related to his or her area of interest and will be evaluated by the participating professional for course credit. Prerequisite: A completed major application for a lawyers' assistant program and consent of instructor.

Department of Military Science

Lt. Col. H. L. Johnson *chairperson*

College-graduate junior executives for our Armed Forces are provided by an Army Reserve Officers' Training Corps (ROTC) program administered by the Department of Military Science. Traditional four-year baccalaureate-degree aspirants may qualify for a commission as an officer through completion of military science courses. These courses may count as elective courses or as a supplement, amounting to 10 to 15 percent of the normal college studies. With the exception of a six-week paid summer camp, all instruction is presented on campus. Various field trips are conducted to further enrich the student's appreciation of national security in its broadest sense and to develop leadership skills.

A commission as a second lieutenant in the United States Army Reserve is granted to the individual who completes either the two-year or four-year ROTC program and obtains a baccalaureate degree from MWSC. Currently, a college graduate who is commissioned through ROTC is placed on active duty for either three months or three years, depending on his or her desires and on the needs of the service at the time of graduation. A contract guaranteeing the three-month program is available.

Four-Year ROTC Program: This program consists of 18 credit hours of military science offerings on campus: 6 credit hours from the 100- and 200-level courses, to include MIL 100, 210, and 212; and 12 credit hours from MIL 300, 310, 400, and 410. In addition to military science, five 3-credit-hour courses from five fields of study (human behavior, written communications skills, military history, national security policy, and management) are required, some of which meet general studies requirements. In the event of a legitimate academic overload, studies in national security and management may be deferred. The student also must complete a six-week advanced camp at Fort Riley, Kansas, normally between the junior and senior years. For this camp, the student receives pay of approximately \$600, plus travel expenses. Entrance into the advanced course is subject to the approval of the department chairperson.

Two-Year ROTC Program: This course of study is for students who were unable to enroll in ROTC during their first two academic years. The two-year program substitutes a six-week basic camp at Fort Knox, Kentucky, for the 100- and 200-level courses. The remainder of the course is the same as the four-year program. Pay for students while attending basic camp is approximately \$600, plus travel expenses.

Military Science Minor: A minor totals 24 credits. The following are required (18 credits): MIL 100, 210, 300, 302, 310, 312, 400, 410 and 412. Six credits may be chosen from the following: MIL 105, 120, 200, 212 and 450. Additionally, the six-week advanced camp must be successfully completed to be eligible for the minor.

Placement for Veterans: Prior service personnel desiring a commission through ROTC may have the 100- and 200- level military science courses waived and enter directly into the advanced course (the last two years of military science). The monthly financial aid of \$100 does not affect other financial benefits available to veterans. Interested veterans should contact the professor of military science for permission to enter the advanced course.

Monetary Allowances: ROTC students are furnished textbooks for military science courses. Students enrolled in the last two years of military science receive \$100 per month during the school year, not to exceed ten months per year.

Financial Assistance

U.S. Army ROTC Scholarship: Two-, three-, and four-year scholarships are awarded each year to selected students who are enrolled or will enroll in the Army ROTC program. The scholarships provide payment of all tuition, fees and a monthly tax-free payment of \$100 for the duration of the scholarship, not to exceed ten months for each year of the scholarship.

Fee Waivers: Fee waiver scholarships are available. See the department chairperson.

Military Science Courses

MIL 100 Introduction to Military Science (1) i, ii, iii. Introduction to the citizen-soldier concept. Includes marksmanship skills, terminology, techniques of firing and safety.

MIL 105 Introduction to Survival Training (1) i, ii, iii. Techniques for survival: rope bridging, ropes and rope management, types of rappels, basic drown proofing, survival testing, improvised floats, rafts and introduction to canoeing.

MIL 120 Precision Military Drill (1) i, ii. Introduction to the conduct of military drill and ceremonies, individual, small unit, drill team, and Color Guard drill; includes the Manual of Arms with infantry weapons and instructing techniques of military drill. Lecture/lab two hours per week. May be repeated for credit with the approval of the department chairperson.

MIL 200 American Military History (3) i, ii, iii. General study and application of the development of the American military system from colonial times to the present.

MIL 210 Map Reading (2) i, ii, iii. Introduction to map reading and orienteering. Prerequisite: MIL 100 and MIL 105, or the consent of department chairperson.

MIL 212 Introduction to Military Skills (2) i, ii, iii. Introduction to a basic understanding of first aid and drill and ceremony. Prerequisite: MIL 100 and MIL 105, or the consent of the department chairperson.

MIL 300 Leadership and Management I (3) i. Investigates organizational leadership, organizational and individual psychology in the military environment, and application of academic theory to specific military management and ethics; includes practical application of the military instruction methodology and military writing techniques. Prerequisite: 6 credits in military science including MIL 100, 210, and 212, or consent of department chairperson.

MIL 302 Leadership Practicum (1) i. Examines squad and platoon offensive and defensive operations, the patrol leader in patrolling operations, and a tactical application exercise. Prerequisite: Advanced-course status. To be taken concurrently with MIL 300.

MIL 310 Fundamentals and Dynamics of the Military Team I (3) ii. Principles and fundamentals of military operations, the decision-making process, planning communications, and basic military skills overview. Prerequisite: MIL 300 or consent of department chairperson.

MIL 312 Leadership Practicum (1) ii. Familiarization with military firearms; includes assembly and disassembly; tactical communications and the field artillery request. Prerequisite: Advanced-course status. To be taken concurrently with MIL 310.

MIL 400 Fundamentals and Dynamics of the Military Team II (3) i. Discussion and application of the principles of military organization and management; includes the comprehensive study of executive decision making and communications, operations, training, logistics, intelligence, and personnel. Prerequisite: MIL 310 or consent of department chairperson.

MIL 410 Leadership and Management II (3) ii. Advanced study of leadership and management; examines administration at the company level and military justice; concludes with an overview of the obligations and responsibilities of an officer. Prerequisite: MIL 400 or consent of department chairperson.

MIL 412 Leadership Practicum (1) ii. Practical applications in problem analysis, decision making, planning and organization, delegation and control, and development of interpersonal skills required for effective management. Prerequisite: Advanced-course status. To be taken concurrently with MIL 410.

MIL 450 Independent Study in Military Science (1-5). Investigates selected problems or topics on an individual or conference basis. Prerequisite: Consent of department chairperson.

Department of Nursing

C. Esry, *chairperson*

The Department of Nursing offers an Associate of Science degree. There are two options available to complete the nursing program. The basic generic option is for the beginning student in nursing. The alternate option is the ladder concept for the licensed practical nurse (L.P.N.), which permits advanced placement for past educational experiences. Specific course content and planned learning experiences emphasize the relationship between the concepts of nursing, person, environment, health, illness and adaptation.

The following objectives are essential for graduates of the nursing program:

- Utilize all steps of the nursing process to function in structured health care settings to facilitate adaptation of clients with known health problems.
- Determine client need for information and implement individualized teaching plans.
- Use effective communication skills with clients and other members of the health care team.
- Utilize knowledge of growth and development in assessing, planning, implementing and evaluating nursing care.
- Function in specific roles and settings for the practice of associate degree nursing as described in the philosophy of the program.
- Acknowledge the need and assume responsibility for continued professional growth.
- Cooperate with other members of the health care team to provide health care to clients.
- Assume accountability for his or her nursing practice.
- Utilize appropriate sources in determining rationale for nursing plans and interventions.
- Assist, as directed, in the gathering of reliable and accurate data to further nursing science.

A minimum grade of C in each course in the major is required for graduation from the nursing program.

Upon completion of the program the graduate is eligible to apply to write the National Council Licensure Examination to qualify for licensure as a registered professional nurse (R.N.). This program is accredited by the Missouri State Board of Nursing.

Admission to the Nursing Program

A selection committee reviews all applicants and determines those who will be admitted to each class. To be eligible for possible selection for the fall class, prospective students must contact the department chairperson for an application, which must be completed and returned by February 1. Other requirements for admission will be explained by the chairperson.

The laboratory experience in the nursing program requires special uniforms. The cost for these is approximately \$50.

Associate of Science Degree Requirements

An Associate of Science degree with a major in nursing requires completion of the following specific courses: NUR 101, 150, 190, 250, 251, 270; BIO 250 and 251; PSY 101; SOC 110; CHE 104.

An Associate of Science degree with a major in nursing completed as an L.P.N. accepted into the ladder program requires completion of the following specific courses: NUR 175, 190, 250, 251, 270; BIO 250 and 251; PSY 101; SOC 110; CHE 104.

Nursing Courses

NUR 101 Introduction to Nursing (2) i, ii. An introductory course open to students who have an interest in nursing. Introduces basic concepts of nursing including professionalism, nursing process, interpersonal communication, human growth and development, health, adaptation, stress management and research. Required for students in the Department of Nursing. May be taken concurrently with NUR 150.

NUR 150 Concepts and Processes of Nursing I (6) i. Concepts and processes basic to nursing that serve to facilitate a client's adaptation on the health-illness continuum. Includes clinical and laboratory application of theoretical concepts. Four hours lecture, six hours lab. Prerequisite: Consent of department chairperson.

NUR 175 Concepts of Associate Degree Nursing (3) i. Introduces theoretical concepts basic to the present-day practice of nursing to facilitate a client's adaptation on the health-illness continuum. Examines topics such as nursing process, communication, pharmacology and physical assessment. May serve as a review for an R.N. who has not practiced recently. Meets the requirements of NUR 101 and NUR 150 for the L.P.N. Prerequisite: Current licensure as L.P.N. or R.N. and consent of department chairperson.

NUR 190 Concepts and Processes of Nursing II (8) ii. An exploration of the client's process of adaptation and resulting nursing care in relation to body systems. Includes guided campus laboratory simulations and clinical laboratory experiences in caring for clients adapting to deviations from health. Five hours lecture, ten hours lab. Prerequisite: NUR 150 or 175.

NUR 250 Concepts and Processes of Nursing III (10) i. A continued exploration of the client's process of adaptation and the resulting nursing care in relation to body systems. Includes guided campus laboratory simulations and clinical laboratory experiences in caring for clients adapting to deviations from health. Five hours lecture, fifteen hours lab. Prerequisite: NUR 190.

NUR 251 Concepts and Processes of Nursing IV (10) ii. A continuation of NUR 250 with exploration of the client's process of adaptation and the resulting nursing care in relation to body systems. Also includes an in-depth study of the adaptation of clients with complex deviations from health and emphasis on the interrelatedness of all of the body systems. Guided clinical experiences in caring for clients with deviations from health. Five hours lecture, fifteen hours lab. Prerequisite: NUR 250.

NUR 270 Nursing Seminar (2) ii. Seminar providing for the analysis of various nursing concepts and trends. Emphasizes communication, professionalism and management. Prerequisite: NUR 250.

Program in Pilot Training

The Program in Pilot Training is designed to prepare individuals to become professional pilots. Employment opportunities for pilots include air taxi, business or corporate flying, supply company pilot, pilot instruction, police patrol flying, and a variety of others.

An Associate of Science degree with a major in pilot training requires completion of the following specific courses: PTR 120, 123, 126, 129, 240, 243, 246, and 249. There are costs for pilot training courses in addition to the regular college fees. Interested individuals should contact the dean of the Division of Career Programs for further information.

Pilot Training Courses

PTR 120 Private Flight (3) i, ii. Flight maneuvers leading to private-pilot single-engine land certificate. Two hours lecture, four hours lab.

PTR 123 Private Ground (3) i, ii. Ground training leading to private-pilot single-engine land certificate. To be taken concurrently with PTR 120.

PTR 126 Commercial Flight I (3) i, ii. Continuation of flight training leading to qualification for commercial license. Two hours lecture, four hours lab. Prerequisite: PTR 120.

PTR 129 Commercial Ground (3) i, ii. Advanced weights and balances, meteorology, flight computers, navigation, radio, federal aviation regulations, and flight maneuvers. To be taken concurrently with PTR 126. Prerequisite: PTR 123.

PTR 240 Commercial Flight II (3) i, ii. Continuation of PTR 126. May be taken at the convenience of the student and the flight school. Two hours lecture, four hours lab.

PTR 243 Instrument Flight (3) i, ii. Flight maneuvers and planning by sole reference to flight instruments. Two hours lecture, four hours lab. Prerequisite: PTR 126.

PTR 246 Instrument Ground (3) i, ii. Aircraft instruments and systems; instrument flight rules, flight charts, visual omni-range flight procedure, instrument landing systems, and automatic direction-finder approaches. To be taken concurrently with PTR 243. Prerequisite: PTR 129.

PTR 249 Instructor Flight (3) i, ii. Flight teaching procedure. Two hours lecture, four hours lab. To be taken concurrently with PTR 243 and PTR 246. Prerequisite: PTR 240.

Program in Secretarial Science

The Program in Secretarial Science is designed to prepare individuals for clerical and secretarial careers in various public and private organizations, such as educational institutions, government agencies, manufacturing companies, law firms, medical institutions, and insurance agencies.

An Associate of Science degree with a major in executive secretary requires the completion of the following specific courses: SEC 141, 145, 231, 232, 240, 330, 340, 350, 351, 360, and 370; MGT 110, 116 or 210; ACC 230; ECO 260; and CSC 182.

An Associate of Science degree with a major in corresponding secretary requires the completion of the following specific courses: SEC 141, 231, 232, 240, 330, 345, 350, 351, 360, 370, and 371; MGT 110, 116 or 210; ACC 230; ECO 260; and CSC 182.

A Secretarial Certificate requires the completion of the following specific courses: SEC 141, 231, 232, 240, 330, 351, and 370; MGT 116; ENG 104; and two of the following: SEC 144, 145, 340.

A Clerical Certificate requires the completion of the following specific courses: SEC 141, 231, 232, 240, 351, and 370; MGT 110 and 116; ENG 104; ACC 230; plus one of the following: SEC 220, 330, 345; CSC 182.

Secretarial Science Courses

SEC 140 Elementary Typewriting (3) i, ii, iii. Beginning typewriting, emphasizing presentation of keyboard, skill development, and typing of letters, tables, manuscripts, and business forms. Three hours lecture, one and one-half hours lab.

SEC 141 Intermediate Typewriting (3) i, ii, iii. Emphasizes developing speed and accuracy, typing correspondence, tabulation, manuscripts, and business forms. Three hours lecture, one and one-half hours lab. Prerequisite: SEC 140 or minimum of one year typing in high school.

SEC 144 Elementary Shorthand (3) i, ii. Beginning course in which principles of Gregg Shorthand, Series 90, are taught. Three hours lecture, one and one-half hours lab. Prerequisite: SEC 140 or equivalent and ENG 100 or equivalent.

SEC 145 Intermediate Shorthand (3) i, ii. A continuation of SEC 144 designed to review the principles of Gregg Shorthand, Series 90, with emphasis on development of dictation and transcription skills. Minimum dictation speed of sixty words per minute on new material is needed to take this course. SEC 141 should precede or parallel this course. Three hours lecture, one and one-half hours lab. Prerequisite: SEC 144 with C grade or better or one year of high school shorthand with C grade or better.

SEC 220 Office Occupations Practicum (2 or 3*) i, ii, iii. Provides on-the-job office experience to students working in an approved local business for a minimum of ten hours a week. Students may take it for credit only one semester. Prerequisite: SEC 141, completed major application in secretarial science, and written consent of instructor.

SEC 231 Electronic Calculator (1) i, ii. Introduction to electronic calculators. One hour lecture, two hours lab.

SEC 232 Machine Transcription (2) i, ii. Teaches students to produce mailable copy from transcription equipment; includes drill on transcription skills, with emphasis on quality of production; application of punctuation, spelling, vocabulary building, letter styles, placement, proofreading, and

*2 hours credit if employed ten to fourteen hours a week (twenty to twenty-eight for summer session); 3 hours credit if employed for fifteen or more hours a week (thirty or more for summer session).

grammar to the transcription process. Two hours lecture, one hour lab. Prerequisite: Credit or concurrent enrollment in SEC 141.

SEC 240 Office Typing Problems (3) i, ii, iii. Simulated office typing problems, including specialized offices; emphasizes production of mailable copy. Three hours lecture, one and one-half hours lab. Prerequisite: SEC 141 with grade of C or better.

SEC 330 Records Management (3) ii. Introduction to nature of records management; includes methods of storage, retrieval, retention, transfer, and disposition; and alphabetic, numeric, geographic, and subject systems.

SEC 340 Advanced Shorthand (3) i, ii. Continuation of SEC 145 with further development of dictation and transcription skills. Minimum dictation speed of eighty words per minute is needed to take this course. Three hours lecture, one and one-half hours lab. Prerequisite: Credit or concurrent enrollment in SEC 240; SEC 145 with C grade or better.

SEC 345 Advanced Machine Transcription (3) ii. Designed to develop proficiency in administrative and word processing secretarial skills. Upon completion of the course, students should be able to transcribe between 100 and 125 net lines per hour. Prerequisite: SEC 232.

SEC 350 Office Communications (3) i. Designed to teach effective oral and written communications; includes business letters and reports. Three hours lecture. Prerequisite: ENG 104 or equivalent and SEC 141.

SEC 351 Model Office (3) ii. Simulated office experience designed to integrate a wide range of knowledge and skills in modern office practice. Three hours lecture, two hours lab. Prerequisite: SEC 231 and SEC 232; credit or concurrent enrollment in SEC 240.

SEC 360 Office Management (3) i. Develops the ability needed to plan, organize, staff, and supervise an office; includes management responsibility for office layouts, equipment, human relations, budgeting, and decision making.

SEC 370 Word Processing (3) i, ii. Provides background in the evolving field of word processing, its basic concepts and role in today's office environment; understanding of the systems approach to communication; the value of measurement and control; the expanding future dimensions of word processing; introduces file management procedures and basic system maintenance. The student will receive hands-on experience on a sophisticated visual-display word processing system. Prerequisite: SEC 141.

SEC 371 Word Processing Practicum (2-3) i, ii. Provides work experience in the college word processing center for a minimum of ten hours a week. The student may take the course for credit only one semester. Prerequisite: SEC 370, credit or concurrent enrollment in SEC 350, completed major application in secretarial science, and written consent of instructor.

General Electives

ALH 100 Emergency Medical Technology (9). Basic course designed to prepare persons for service with emergency medical units; emphasizes the techniques of emergency medical care and rescue operation. Prerequisite: Consent of instructor.

ALH 106 Medical Terminology (2) i. Medical terms with reference to human anatomy and disease processes for the paramedical professions.

ALH 200 Mobile Emergency Medical Technology (16). Advanced course for emergency medical service personnel; emphasizes knowledge and skills necessary for emergency care personnel to diagnose and treat acutely ill and seriously injured patients under the control and supervision of a licensed physician. Prerequisite: ALH 100 and consent of instructor.

The Division of Education and Psychology

The Division of Education and Psychology includes the Departments of Education; Health, Physical Education, and Recreation; and Psychology.

The division contributes to all facets of education within the college. Required and elective courses assist students in fulfilling general educational needs; comprehensive offerings lead to the completion of degree requirements; and the varied electives assist in providing program enrichment.

Students have the opportunity to pursue a wide spectrum of programs designed to culminate in competent graduates who also possess the general and human relation skills necessary to succeed in an ever-changing society.

The division is dedicated to the belief that the college is for students, and every effort is made to make both the staff and facilities available to help students gain maximum benefits and enjoyment from their college program. The objectives of the division are to provide opportunities for:

- professional development, in which students are prepared to enter the field of their choice with the knowledge and skills necessary for personal success and satisfaction either in the marketplace or in pursuit of additional education;
- personal development, in which a variety of courses are available through which students may broaden and enrich their understanding of themselves, mankind, and society;
- career exploration, in which, through a blend of on-campus theory courses and off-campus experiences, students can explore the field of their choice early in their academic program.

The semester course designations may be adjusted according to need, enrollment, demand of students, and availability of instructional resources.

Department of Education

Dr. Solon E. Haynes, *chairperson*

The Department of Education is concerned with the total process of helping individuals become teachers. Students who wish to become elementary or secondary teachers learn to understand and utilize the principles of learning, human growth and development, and interpersonal relationships. The department also provides specialized educational experiences in participating elementary and secondary schools under the supervision of experienced teachers. The professional training of a prospective teacher is normally scheduled throughout the sophomore, junior, and senior years, culminating with a final professional semester. The professional education sequence complements a broad education curriculum. A sound command of a major teaching field is integrated throughout the student's four-year program. The Missouri Western State College Teacher Education Program is accredited by the National Council for Accreditation of Teacher Education (NCATE).

The Department of Education offers a major in elementary education for the degree of Bachelor of Science in Education. The Bachelor of Science in Education with an emphasis in secondary education is offered in conjunction with other departments. All degree programs satisfy the appropriate requirements for teacher certification as established by the Missouri Department of Elementary and Secondary Education. To be certified to teach, students must have fulfilled all degree requirements and, according to section 168.031 of the Missouri School Laws, must present evidence of good moral character.

The Department of Education offers an Associate of Science degree with a major in elementary education — teacher aide.

Admission Requirements

To gain admission to the teacher education program, applicants must meet the following requirements:

- The applicant must achieve a composite score of 18 on the American College Test (ACT) or 800 on the Scholastic Aptitude Test (SAT).
- The applicant must enroll in Participation in Teaching I submitting an application as determined by those in charge of the teacher education program.
- Admission and retention requirements for teacher education are available in the departmental office.

Degree and Certification Requirements

Upon completion of the degree requirements with a minimum cumulative GPA of 2.5 and a minimum grade of C in student teaching, the candidate will receive a State of Missouri Teaching Certificate and be prepared for employment or for graduate study in education or related fields. Any grade lower than C in the major field and professional sequence could be grounds for the denial of certification. Decisions concerning excep-

tions will be determined by the Teacher Education Admissions and Retention Committee. Such refusal of certification will be so stated on the person's transcript.

Special Programs

Academic contracts (one- and two-year temporary Missouri certification) are available at Missouri Western State College. Interested persons should contact the chairperson of the Department of Education.

Elementary Education

The Department of Education faculty is committed to the professional preparation of teachers for employment in elementary education programs. The goals are to prepare teachers who are:

- highly knowledgeable in the cognitive areas,
- trained in the techniques and methods of teaching across the wide spectrum of elementary grades,
- warm, understanding, and empathetic in the area of humanizing education, and
- ready to assume an active role in the profession of teaching.

The following general studies requirements for elementary majors must be satisfactorily completed: MAT 101; ENG 104 and 108 or ENG 112 and an additional course in English composition; SPH 104 or 105; BIO 101 or 111 and 112; CHE 101 or 104 or 111 or PHY 101 or 110 or 210 and 211 or ESC 111; PSY 101; HIS 140; HUM 203 or 205; ENG 210; ART 100 or MUS 101 or THR 113; PED 101; PED or MIL activity.

In addition to the general studies and the professional sequence, the elementary major is required to complete successfully the following courses: ART 300; EED 310, 320, 330, 340, 360, 409; ENG 300; GEO 100; MAT 350,* 351*; MUS 220 or 320; PED 300 and 380 or 382; PHS 230; PSC 101; SED 331.

The elementary major must also select an emphasis area. The requirements are determined by the Department of Education in consultation with the various academic departments. The emphasis areas include creative arts (art or music concentration), English, foreign language, mathematics, physical education, remedial reading, general science, and social science.

Special certificates also fulfill the emphasis area requirements and are available in the areas of early childhood education, early childhood special education, teaching the mentally handicapped, teaching the behaviorally disordered, teaching the learning disabled, and library science.

The requirements for emphasis areas and specialized certificate programs are available from an elementary education advisor. Early planning of one's total program is highly desirable.

The Professional Sequence

The professional sequence is as follows.

	<i>Credits</i>
EED 202 Introduction to Elementary Education	2
EED 203 Participation in Elementary Teaching I	1
EED 303 Experience in Elementary Teaching II	3
EED 305 Psychology in Elementary Teaching	4
EED 403 Seminar in Elementary Education and Human Relations	3
EED 408 Elementary Student Teaching III	9
EED 410 Psychology and Education of the Exceptional Child	2
<i>Total credits</i>	24

*To meet the wide variance of individual mathematical backgrounds, the elementary major, after consulting the Departments of Education and Mathematical Sciences, may elect to be placed according to the following guidelines: High school graduate five years or more ago with one year of general math or with one year of algebra with C/D grade: take MAT 95, 101, 350, and 351; Algebra I within past five years with A/B grade: enroll in MAT 101, 350, and 351; three or more years of college-preparatory high school math with A/B grade: enroll in MAT 350 and 351.

Elementary Student Teaching III (EED 408) is to be taken during the student's senior year. Seminar in Elementary Education and Human Relations (EED 403) and Elementary Problems in Reading (EED 409) are to be taken concurrently with Elementary Student Teaching III. This semester is designed as a professional education semester.

Course work during the professional education semester is usually limited to EED 403, EED 408, and EED 409. Petition for any additional course work must be submitted to the coordinator of clinical experiences in the semester prior to Elementary Student Teaching III. If granted, approval will be endorsed by the cooperating teacher to whom the student petitioner is to be assigned.

A student enrolled in Elementary Student Teaching III will assume the daily teaching schedule of the cooperating teacher.

Elementary Education Courses

EED 101 Speed Reading (2) i, ii. Designed to improve the skills, speed, and comprehension of those individuals who feel a need for such improvement in school, professional, business, or recreational pursuits. Open to both regularly enrolled students and any interested individual.

EED 202 Introduction to Elementary Education (2) i, ii. Basic introduction to professional education; an on-campus exploratory course to aid the participant in deciding whether or not to become a teacher and to provide basic information and attitude development necessary for successful teaching. Taken the same semester as EED 203. Prerequisite: ENG 104 and 108 or 112 and an additional course in English composition.

EED 203 Participation in Elementary Teaching I (1) i, ii. Laboratory course following EED 202. During this off-campus experience, the participant serves as a teacher assistant; provides concrete exposure to teaching, students, and the school. Prerequisite: EED 202 and approved admission to the Teacher Education Program.

EED 303 Experience in Elementary Teaching II (3) i, ii. Continuation of the off-campus experiences in cooperating schools as a teacher associate. To be taken concurrently with EED 305. Prerequisite: EED 203 and 310, and approved admission to the Teacher Education Program.

EED 305 Psychology in Elementary Teaching (4) i, ii. Studies psychological principles as applied to educational settings. To be taken concurrently with EED 303. Prerequisite: PSY 101 and EED 203.

EED 310 Introduction to Reading (3) i, ii. Developmental reading; techniques of teaching reading in the elementary school. Prerequisite: ENG 104, 108, or 112.

EED 320 Language Arts Methods (3) i, ii. A general survey course to integrate the skills of listening, writing, and speaking with reading skills.

EED 321 Language Arts Approaches / Creative Dramatics (1) (on demand). Demonstrates and collects appropriate plays for elementary grades.

EED 322 Language Arts Approaches / Poetry (1) (on demand). An in-depth study of children's poems, choral reading, poem patterns; practice in writing original poems as well as collecting appropriate poems and choral readings for elementary grades.

EED 323 Language Arts Approaches / Listening (1) (on demand). Appropriate listening techniques to use in the elementary school.

EED 324 Language Arts Approaches / Handwriting (1) (on demand). Practice in both manuscript and cursive handwriting using D'Nealian, Zaner-Bloser, Palmer, and other methods.

EED 325 Language Arts Approaches / Spelling (1) (on demand). An in-depth study of techniques of teaching spelling in the elementary school.

EED 326 Language Arts Approaches / Grammar and Linguistics (1) (on demand). Studies methods of teaching English grammar and linguistics in the elementary school.

EED 330 Science Methods in Early Childhood and Elementary School (2) i, ii. Designed for teachers in early childhood and elementary school; emphasizes methodology, strategies, materials, and curriculum development of elementary science. Prerequisite: PHS 230.

EED 340 Social Studies Methods for Elementary Teachers (2) i, ii. General survey course of skills, concepts, methodologies, strategies, and curriculum development of elementary social studies; includes inquiry learning, problem solving, current events, interpretation of pictures, charts, graphs,

tables, maps, and time lines, and location and evaluation of information. Prerequisite: HIS 140, PSC 101, GEO 100.

EED 342 Measurement and Evaluation in Education (3) i. Principles and techniques of administration, application, and interpretation of tests, test results, and data. Prerequisite: EED 303 and 305 or SED 304, MAT 201, or consent of department chairperson.

EED 353 Introduction to Special Education (1) i. Surveys history of and current issues in the field including legislation and litigation, delivery of services, and the Individualized Education Plan (IEP). Prerequisite: EED 203 or consent of department chairperson.

EED 354 Introduction to Mentally Handicapped Students (1) i. Examines social, cognitive, emotional, and other developmental aspects of mentally handicapped students; studies prevalence, etiology, classifications, counseling of the handicapped and their families, and facilitating development of independent living skills. Prerequisite: EED 203, EED 353, or consent of department chairperson.

EED 355 Introduction to Behaviorally Disordered Students (1) i. Evaluates different theoretical approaches to cause, identification, evaluation procedures, and techniques of treatment for the behaviorally disordered; surveys definitions, historical landmarks, deviance, and intervention strategies. Prerequisite: EED 203, EED 353, or consent of department chairperson.

EED 356 Introduction to Learning-Disabled Students (1) i. Studies characteristics, history, diagnosis, and theories of learning disabilities. Prerequisite: EED 203, EED 353, or consent of department chairperson.

EED 360 Assessing and Individualizing Reading (3) i, ii. Acquaints the classroom teacher with philosophy, theories, pertinent studies and findings, and test instruments aiding perception and analysis of performance levels and behaviors in learning to read; develops expertise in determining the strengths and weaknesses of each pupil and the causal relationship of the total reading performance pattern; develops observation and evaluation skills to study, develop, and utilize selected evaluation instruments for adapting class methods and materials to the needs of students. Prerequisite: EED 310 or SED 311.

EED 380 Reading Approaches / Phonics (1) (on demand). Teaching reading through the sound/symbol relationship. Prerequisite: EED 310 or SED 311.

EED 381 Reading Approaches / Linguistic (1) (on demand). Teaching reading through word and sentence structure. Prerequisite: EED 310 or SED 311.

EED 382 Reading Approaches / Enrichment (1) (on demand). Using literature, storytelling, dramatics, and creative writing to enrich the reading experience. Prerequisite: EED 310 or SED 311.

EED 383 Reading Approaches / Language Experience (1) (on demand). Teaching reading whereby the child creates or writes his or her own material. This method capitalizes on the relationship between reading and the other language developments of the child. Prerequisite: EED 310 or SED 311.

EED 384 Reading Approaches / Individualized (1) (on demand). Teaching reading whereby the student is directed to select his or her own reading material. Prerequisite: EED 310 or SED 311.

EED 385 Reading Approaches / Basal Reader (1) (on demand). Teaching reading through the use of a basal textbook. Prerequisite: EED 310 or SED 311.

EED 403 Seminar in Elementary Education and Human Relations (3) i, ii. Studies philosophical, ethical, and legal problems related to elementary education; explores instructional strategies, general methodology, evaluation procedures, and interpersonal relations applied to teaching. To be taken concurrently with EED 408 and EED 409.

EED 408 Elementary Student Teaching III (9) i, ii. A semester of clinical experience in an off-campus situation under a certified cooperating teacher. To be taken concurrently with EED 403 and EED 409. Prerequisite: EED 203, 303, and 305.

EED 409 Elementary Problems in Reading (2) i, ii. An application course involving in-depth review of and research in the two preceding reading courses in areas where the student indicates need for greater expertise. To be taken concurrently with EED 403 and EED 408.

EED 410 Psychology and Education of the Exceptional Child (2) i, ii. Designed to give all teachers background and experience in working with the exceptional child in the regular classroom. Prerequisite: EED 305.

EED 413 Speech Correction for the Classroom Teacher (3) ii. Methods and techniques of speech correction utilized by the classroom teacher.

EED 414 Methods of Teaching the Mentally Handicapped (3) ii. Special techniques for teaching the atypical child. Prerequisite: EED 303 and 305 or SED 304 or consent of department chairperson.

EED 415 Methods of Teaching the Behaviorally Disordered (3) ii. Special techniques for teaching the emotionally disturbed child. Prerequisite: EED 303 and 305 or SED 304 or consent of department chairperson.

EED 416 Methods of Teaching the Learning Disabled (3) ii. Special techniques for teaching the child with learning disabilities. Prerequisite: EED 303 and EED 305 or SED 304 or consent of department chairperson.

EED 420 Conferencing with Parents (2) ii. Designed to foster parent-teacher cooperation; includes communication and conflict resolution strategies applicable to educationally related situations (including IEP conferences and regular parent-teacher conferences) with exceptional students, families of exceptional students, and other professionals. Prerequisite: EED 410.

EED 421 Experience in Teaching Mentally Handicapped Students (3) i, ii. Off-campus experience with mentally handicapped students in cooperating schools as a teacher associate. Prerequisite: EED 414 or consent of department chairperson.

EED 422 Experience in Teaching Behaviorally Disordered Students (3) i, ii. Off-campus experience teaching behaviorally disordered students in cooperating schools as a teacher associate. Prerequisite: EED 415 or consent of department chairperson.

EED 423 Experience in Teaching Learning-Disabled Students (3) i, ii. Off-campus experience teaching students with learning disabilities in cooperating schools as a teacher associate. Prerequisite: EED 416 or consent of department chairperson.

EED 424 Experience in Teaching Early Childhood Education (3) i, ii. Off-campus experience in teaching the young child in cooperating preschools and kindergartens.

EED 440 Early Childhood / Methods and Materials (3) iii. Designed to acquaint the early childhood educator with techniques, methods, and materials for use with the young child.

EED 441 Early Childhood / Creativity (1) i(even-numbered years). A five-week component course emphasizing the importance of encouraging creativity in both the early childhood instructor and the young child.

EED 442 Early Childhood / Language Development (1) i(even-numbered years). A five-week component course emphasizing language development in the young child, techniques for detecting potential problem areas, and methods for encouraging speech.

EED 443 Early Childhood / Special Education (1) i(even-numbered years). A five-week component course designed to acquaint the early childhood instructor with the special needs of young children.

EED 444 Early Childhood / Curriculum (1) i(odd-numbered years). A five-week component course designed to aid the early childhood educator in planning an all-inclusive curriculum for the young child.

EED 445 Early Childhood / Parents (1) i(odd-numbered years). A five-week component course emphasizing the importance of parental involvement in early childhood education.

EED 446 Early Childhood / Community Resources (1) i(odd-numbered years). A five-week component course acquainting the student with the various community agencies and services available to the young child, parents, and teacher.

EED 450 Independent Study (credit hours open) i, ii. A research-oriented course intended to extend the competencies of the student in a particular area. Prerequisite: Consent of department chairperson.

EED 483 Practicum I in Reading: Diagnosis of Reading Difficulties (3) i. Clinical diagnosis in evaluation of reading and learning problems. Prerequisite: EED 310, EED 360, EED 342, and consent of department chairperson. One hour lecture, three hours lab. Course can only be taken on MWSC campus.

EED 484 Practicum II in Reading: Remediation of Reading Difficulties (3) i. Clinical treatment of identified reading and learning problems. Prerequisite: EED 483. One hour lecture, three hours lab. Course can only be taken on MWSC campus.

EED 490 Applied Education Practices (1-9) (on demand). Workshops will be developed in selected areas in accordance with student interest.

Library Science Courses

LED 225 Introduction to Cataloging and Classification (3) I (odd-numbered years). Introduction to the cataloging and classification of print and nonprint materials for libraries and media centers; emphasizes school libraries and use of the Dewey Decimal Classification and the Sears Subject Heading systems.

LED 230 Selection and Acquisition of Library Materials (2) II (even-numbered years). Introduces students to the policies, procedures, and bibliographic tools for selection of library materials as well as sources for acquiring such materials.

LED 325 Introduction to Reference (3) I (even-numbered years). Introduces students to the basic reference tools found in school and/or small public libraries; also introduces patron interview techniques and the fundamental reference search process.

LED 335 Administration of School Library / Media Centers (2) II (odd-numbered years). Introduces the student to principles of organization and management of a school library or media center; focuses on budget, staffing, interaction with faculty, administration, and community, and professional organizations.

LED 411 Library Science Practicum (3) (on demand). An off-campus experience in a school setting designed to give the student practical experience in actual library situations. Prerequisite: LED 225, LED 230, LED 325, LED 335.

Secondary Education

The Department of Education has an overall objective of providing secondary schools with the best possible teachers by providing secondary education graduates who are capable of:

- teaching in one or more fields, so their backgrounds will allow them to bring expertise in the discipline to the students,
- implementing the idea that "teachers teach students, not subject matter," with a background well attuned to the human aspects of the educational process, and
- functioning in a variety of teaching situations, from the traditional to the innovative; in professional preparation, students learn new and different approaches to secondary education as well as time-tested methods.

The general studies requirements must be satisfactorily completed. The specific requirements in the major field are set by the departments. Secondary education majors are available in the following fields: art, biology, business, chemistry, English, mathematics, music, physical education, social science, and speech and theatre. Certification in a second teaching area is available in the majority of these fields.

Special certificates are available in the areas of driver education, teaching of the mentally handicapped, teaching of the behaviorally disordered, teaching of the learning disabled, and library science. The requirements for second teaching areas and specialized certificate programs are available from a secondary education advisor.

The professional sequence is as follows.

	<i>Credits</i>
SED 202 Introduction to Secondary Education	2
SED 203 Participation in Secondary Teaching I	1
SED 303 Experience in Secondary Teaching II	3
SED 304 Psychology in Secondary Teaching	4
SED 311 Secondary Reading Techniques	2
SED 312 Laboratory in Secondary Reading Techniques (<i>optional</i>)	1
SED 404 Seminar in Secondary Education and Human Relations	3
SED 407 Psychology and Education of the Exceptional Student	2
SED 409 Secondary Student Teaching III	9
<i>Total credits</i>	<u>26-27</u>

The Professional Semester

Secondary Student Teaching III (SED 409) is to be taken during the senior year. Seminar in Secondary Education and Human Relations (SED 404) and Psychology and Education of the Exceptional Student (SED 407) are to be taken concurrently with Secondary Student Teaching III. This semester is designated as a professional education semester.

Course work during the professional education semester is usually limited to SED 404, 407, and 409. Petition for any additional course work must be submitted to the coordinator of clinical experiences in the semester prior to Secondary Student Teaching III. If granted, approval will be endorsed by the cooperating teacher to whom the student is assigned.

Students enrolled in Secondary Student Teaching III will assume the daily teaching schedule of the cooperating teacher.

Secondary Education Courses

SED 100 Introduction to Personal Development (2) (on demand). Intensive eight-week course designed to increase the participant's understanding of his or her unique role as a learner and to stimulate the desire to set and achieve personal learning goals; specific activities will enhance the participant to become self-motivated and to pursue personal learning goals to develop a positive realistic self-concept, to develop positive interpersonal skills, and to examine personal values.

SED 154 Principles and Practices of Safety (3) (on demand). Prepares students to assume responsibility for safety education and accident prevention programming in school, industry, and public service.

SED 202 Introduction to Secondary Education (2) i, ii. Basic introduction to professional education. On-campus exploratory course to aid the participant in deciding whether or not to become a teacher, and provide for basic information and attitude development necessary to successful teaching. Taken the same semester as SED 203. Prerequisite: ENG 104 and ENG 108 or ENG 112 and an additional course in English composition.

SED 203 Participation in Secondary Teaching I (1) i, ii. Laboratory course following SED 202 in the same semester. During this off-campus experience, the participant will serve as a teacher assistant. This exploratory course will provide the participant with concrete exposure to teaching, students, and the school. Prerequisite: SED 202 and approved admission to the Teacher Education Program.

SED 254 Developmental Traffic Education (3) (on demand). Introductory course to prepare teachers of driver education; includes classroom instruction, lab experiences, and driving skills.

SED 303 Experience in Secondary Teaching II (3) i, ii. Continuation of the off-campus experience in a cooperating school as a teacher associate. To be taken concurrently with SED 304. Prerequisite: SED 203.

SED 304 Psychology in Secondary Teaching (4) i, ii. Studies psychological principles as applied to educational settings. To be taken concurrently with SED 303. Prerequisite: PSY 101, SED 203.

SED 311 Secondary Reading Techniques (2) i, ii. Techniques of teaching upper-level reading. Prerequisite: ENG 104, 108 or 112.

SED 312 Laboratory in Secondary Reading Techniques (1) i, ii. The student will be required to write a prescription for the student(s) to be worked with and report weekly to the instructor. The student will be required to work in the Learning Skills Laboratory as a tutor two hours per week.

SED 331 Audio-visual Education (2) i. Provides an understanding of why and how instructional materials improve the teaching/learning process, how to locally prepare instructional materials, and how to operate audio-visual equipment normally found in schools. Two hours lecture, one hour lab. Lab fee required. Prerequisite: EED 203 or SED 203.

SED 354 Advanced Traffic Education (3) (on demand). Advanced course to prepare teachers of driver education. Actual experience in teaching beginning drivers in the classroom and the car. Two hours lecture, two hours lab arranged. Prerequisite: SED 254.

SED 404 Seminar in Secondary Education and Human Relations (3) i, ii. Study of philosophical, ethical, and legal problems related to secondary education instructional strategies, including classroom and laboratory experiences; considers interpersonal relations as applied to teaching. To be taken concurrently with SED 407 and SED 409. Prerequisite: SED 303 and SED 304.

SED 407 Psychology and Education of the Exceptional Student (2) i, ii. Introduction to the various areas of exceptionality and the methodology of working with these students. To be taken concurrently with SED 404 and SED 409. Prerequisite: SED 303 and SED 304.

SED 409 Student Teaching III (Secondary) (9) i, ii. Full-time off-campus teaching experiences working with a cooperating teacher. To be taken concurrently with SED 404 and SED 407. Prerequisite: SED 303, SED 304, and special methods course in the major.

SED 410 Student Teaching IV (6) iii. On-campus course designed for the experienced teacher. Activities will include microteaching and human relations training. Not open to baccalaureate degree candidates. Prerequisite: One full academic year of teaching experience plus a bachelor's degree.

SED 450 Independent Study (credit hours open) i, ii. Research-oriented involvement intended to extend the competencies of the student in a particular area of education. Prerequisite: Consent of department chairperson.

SED 490 Applied Education Practices (1-9) (on demand). Workshops in selected areas according to interest.

Department of Health, Physical Education, and Recreation

Dr. C. Erickson, *chairperson*

Whether programming intramural competition, offering a planned sequence of exercises and sports activities to help students develop strong active bodies, or working with student majors in physical education or leisure management, the Department of Health, Physical Education, and Recreation is interested in assisting all students to become healthy and productive members of society.

Students may satisfy general education requirements in category five by taking PED 101, Concepts of Physical Activity, and one activity course. The concepts course is designed to acquaint students with basic knowledge, understanding, and values, and should assist the student in the selection of appropriate activity courses.

Adaptive activities may be repeated as often as needed for students with handicaps which restrict them from the regular activity program. Repeats in this course will satisfy the general education activity requirement.

The department offers a Bachelor of Science in Education degree with an all-level (elementary and secondary) major in health and physical education. Majors in this department must meet the requirements of general education, teacher education, and health and physical education programs. Students who desire a major in this department encounter the various strategies of successful team coaching and various techniques of planning, teaching, and evaluating physical education programs, as well as gain a scientific background in the field. MWSC coaching certification courses are offered by this department for any education major who desires to teach in this area. Health Certification courses are also available through the Department of Health, Physical Education and Recreation.

The department offers a Bachelor of Science degree with a major in leisure management. The major includes a core of required courses as well as related course work in an area of professional emphasis as determined by the student's interest and upon approval of the advisor. A minor in leisure management is also available.

Major in Physical Education

Courses in physical education must total 52 credits and courses in biology 5 credits. The specific courses required are: BIO 250 and PED 191, 192, 201, 243, 244, 245, 246, 301, 302, 303, 304, 310, 374, 380, 382, 384, 385, and 393; 8 credits from PED 311, 312, 313, 314, 315, and 316; 1 credit from PED 153 and 183; 1 credit from PED 145, 184, 185, and 186; and 2 credits from PED 381, 383, 395, and 480.

All physical education majors must pass a swimming proficiency test or show evidence of successfully passing a swimming course prior to being admitted to student teaching. The test consists of the following: Jump feet first into deep water and level off. Swim fifteen yards across the pool using the crawl stroke. Change directions without touching the edge and swim back using the elementary back stroke. If a person has a physical handicap, he or she may apply to the department chairperson for waiver of this requirement. Majors are encouraged to take all activity courses possible.

The semester prior to student teaching, all physical education majors must appear before a committee composed of staff members from the physical education and education departments. The student must be approved by this committee before being allowed to sign up for SED 409, Student Teaching III. Prior to being approved the student must satisfactorily complete ten experiences of supplemental preparation as outlined by the Department of Health, Physical Education, and Recreation and approved by the Coordinator.

Bachelor of Science, Major In Leisure Management

Courses for this major must total 62 credits, including LMA 220, 225, 230, 320, 323, 330, 420, 424, 430; PED 201, 395; and 30 credits within the professional emphasis area of the student's choice (community, outdoor, private, commercial, special populations, youth agencies or commercial physical fitness). All Leisure Management majors must fulfill 50 clock hours of approved supplemental preparation prior to enrolling in LMA 430, Field Experience III.

Minor In Leisure Management

For a leisure management minor, the student must successfully complete 21 credits including LMA 220, 225, 230, 320, 322, 323, 326, 424 and PED 243.

Certification In Athletic Coaching

Majors in any department who receive a degree in education may also receive an MWSC athletic coaching certificate. The following courses make up the 19-credit requirement: PED 201, 304, 310, 374, and 385 (PED 304 and 385 have the prerequisite of BIO 250); 8 credits from PED 311, 312, 313, 314, 315, and 316.

Certification In Health Education

Teachers holding valid elementary or secondary teaching certificates may be granted additional certification in health upon successful completion of CHE 101, BIO 250, BIO 252 or equivalent, PED 192, PSY 210, PED 201, PED 300, PED 301, and BIO 260 or PED 384.

Teachers certified to teach general home economics, vocational consumer homemaking education, biology, or physical education may be certified to teach health in grades K-9 with the completion of BIO 250, PED 201, PED 301, PSY 210, and PED 384 or 300.

Facility and Special Fees

A facility fee of \$4 is required for all courses in the department. The fee entitles the student to use the locker and shower rooms. Special fees are charged for some courses which require special equipment and facilities.

Physical Education Theory Courses

PED 101 Concepts of Physical Activity (3) i, ii, iii. Acquaints students with basic knowledge, understanding, and values of physical activity as it relates to optimal healthful living. Three hours lecture.

PED 191 Foundations of Physical Education (2) i, ii. Historic and philosophic analysis of physical education emphasizing physical education as an academic discipline, professional opportunities, and associated fields. Recommended for freshmen.

PED 192 Personal and Community Health (2) i,ii. Personal health concerns and family and community health responsibilities.

PED 201 First Aid (2) i, ii, iii. General emergency care, major disaster, civil defense; Red Cross standard and instructor certification included. One hour lecture, two hours lab.

PED 243 Methods and Techniques of Adventure Activities (2) i, ii. Introduction to basic knowledge and skills of popular adventure activities, such as shooting sports, angling, backpacking, orienteering, rock climbing, canoeing, and wilderness living. Emphasizes attitudes, skills, environmental awareness, safety, teaching methodology, and principles of group leadership as they relate to adventure activities. Field trips may be required. Four hours lab.

PED 244 Methods and Techniques of Team Sports (2) i. Presents teaching methodology and develops knowledge and skills in the team sports of basketball, flag football, soccer, and volleyball. Four hours lab.

PED 245 Methods and Techniques of Individual and Dual Sports (2) i. Presents teaching methodology and develops knowledge and skills in the individual and dual sports of bowling, badminton, tennis, and golf. Four hours lab.

PED 246 Methods and Techniques of Rhythms and Gymnastics (2) ii. Presents teaching methodology and develops knowledge and skills in social, folk, and square dance, stunts and tumbling, and apparatus gymnastics. Four hours lab.

PED 300 Elementary School Health Education (2) i. Emphasizes content, methods, and materials at the elementary grade levels. Designed for the elementary school classroom teacher.

PED 301 Health Teaching in the Schools (2) i. Emphasizes content, methods, and materials in health education at all levels (K through 12). Prerequisite: PED 192.

PED 302 Issues and Materials in Physical Education (2) ii. Emphasizes major issues and teaching materials as needed for the teaching of physical education in the secondary schools. Students are required to assist in the physical education activity program as a student instructor. One hour lecture, two hours lab. Prerequisite: PED 101 and two of PED 243, 244, 245, 246.

PED 303 Kinesiology (3) i. Analyzes movement from the study of anatomical structures and mechanical principles of the human body; applicable to elementary, secondary, and adult populations. Prerequisite: BIO 250.

PED 304 Physiology of Exercise (3) i. Basic physiology applied to physical education and the training of athletes; applicable to elementary, secondary, and adult populations. Two hours lecture, two hours lab. Prerequisite: BIO 250.

PED 310 Principles and Administration of Coaching (2) ii. Provides insight into the coaching profession; includes developing a professional approach to coaching ethics, psychology of athletics, staff selection, public relations, administration of duties (scheduling, eligibility, reports, purchasing, care of facilities), and appreciation for nontechnical aspects of the total job. Prerequisite: Junior classification.

PED 311 Coaching and Officiating of Football (2) i. Theory, fundamentals, and officiating of football; includes team selection, organization, and strategies from the coaching and officiating standpoints. Officiating in intramurals may be required. Two hours lecture, two hours lab. Prerequisite: Sophomore classification.

PED 312 Coaching and Officiating of Basketball (2) i. Theory, fundamentals, and officiating of basketball; includes team selection, organization, and strategies from the coaching and officiating standpoints. Officiating in intramurals may be required. Two hours lecture, two hours lab. Prerequisite: Sophomore classification.

PED 313 Coaching and Officiating of Baseball and Softball (2) ii. Theory, fundamentals, and officiating of baseball and softball; includes team selection, organization, and strategies from the coaching and officiating standpoints. Officiating in intramurals may be required. Two hours lecture, two hours lab. Prerequisite: Sophomore classification.

PED 314 Coaching and Officiating in Track and Field (2) ii. Theory, fundamentals, and officiating of track and field; includes team selection, organization, and strategies from the coaching and officiating standpoints. Officiating in intramurals may be required. Two hours lecture, two hours lab. Prerequisite: Sophomore classification.

PED 315 Coaching and Officiating of Volleyball (2) i. Theory, fundamentals, and officiating of volleyball; includes team selection, organization, and strategies from the coaching and officiating standpoints. Officiating in intramurals may be required. Two hours lecture, two hours lab. Prerequisite: Sophomore classification.

PED 316 Coaching and Officiating of Wrestling (2) ii. Theory, fundamentals, and officiating in wrestling; includes team selection, organization, and strategies from the coaching and officiating standpoints. Officiating in intramurals may be required. Two hours lecture, two hours lab. Prerequisite: Sophomore classification.

PED 374 Psychology of Sport (2) ii. Emphasizes the psychology and sociology of the sports participant from the standpoint of participant's behavior toward other individuals and groups. Prerequisite: Junior classification.

PED 380 Rhythms and Creative Movement for Elementary School (2) ii. Designed to teach elementary teachers how to approach the use of rhythms as a means for developing neuromuscular growth and body space awareness; uses a variety of musical styles and rhythmic devices to develop a knowledge in movement exploration including body awareness, space utilization, time, and energy change. One hour lecture, two hours lab. Prerequisite: Sophomore classification.

PED 381 Outdoor Education (2) (on demand). A methodology course with an emphasis on establishing learning experiences in natural environments through varied disciplines of study.

PED 382 Elementary School Physical Education (3) i, iii. Fundamental skills, sports, and games for the elementary school physical education program. Two hours lecture, two hours lab. Prerequisite: Sophomore classification.

PED 383 Adaptive Physical Education (2) ii. Theory and methods of programming activities for handicapped students; recognition of, and practical experience with structural deviations from normal body mechanics.

PED 384 Child Growth and Development (2) i. The study of humans from conception to maturation dealing with the pattern of growth involved in the physical and mental processes.

PED 385 Athletic Training (2) ii. Prevention and care of common athletic injuries, protective equipment, and training methods. One hour lecture, two hour lab. Prerequisite: BIO 250.

PED 393 Measurement in Physical Education (3) ii. Methods in evaluation of the product and process; special emphasis on physical fitness, motor ability, posture, and specific sports skills; applicable to elementary, secondary, and adult populations.

PED 395 Intramural Management (2) i. Organization and administration of intramural and extramural activities. Assistance in the intramural program is required. One hour lecture, two hours lab.

PED 450 Independent Study in Physical Education (1-5) i, ii, iii. Research-oriented course to extend the competencies of the student in a particular area of education. Prerequisite: Consent of department chairperson.

PED 480 Practicum in Physical Education (2) i, ii, iii. Individualized in-depth study of a subject in which the student is particularly interested. Prerequisite: Senior classification or consent of department chairperson.

PED 481 Children's Lifetime Sports Academy Practicum (2) iii. Practical teaching experience of children aged eight to fourteen in lifetime sports and adventure activities. Can be repeated for credit.

Leisure Management Courses

LMA 220 Introduction to Recreation (3) i, ii. History and foundations of organized recreation including objectives, responsibilities, scope, and economic and social aspects; tours of specific recreation agencies. Two hours lecture, two hours lab.

LMA 225 Philosophy of Leisure (2) ii. Analyzes fundamental philosophical concepts as they relate to principles and practices of leisure patterns in modern society.

LMA 230 Recreation: Field Experience I (2) i, ii. Practical, exploratory view of three recreation agencies from an on-the-job perspective. One hour lecture, five hours lab. Prerequisite: LMA 220.

LMA 320 Science of Leisure Management (2) ii. Social science research in principles, practices, and ethics of management techniques as they relate to leisure organizations. Prerequisite: LMA 220.

LMA 322 Social Recreation (2) (on demand). Principles and techniques of administering and conducting social events; emphasizes planning, demonstration, and participation.

LMA 323 Program Planning in Recreation (3) i. Basic principles and practices in planning recreation programs in a variety of settings. Prerequisite: LMA 220, 225.

LMA 326 Recreational Arts, Crafts, and Music (2) (on demand). Surveys various arts, crafts, and music involved in recreation settings. Students must furnish their own supplies. One hour lecture, two hours lab.

LMA 330 Recreation: Field Experience II (3) i, ii, iii. Supervised leadership assignment in a leisure agency leading to a deeper conceptual view of intended professional aspirations. One hour lecture, eight hours lab. Prerequisite: LMA 220, 230.

LMA 360 Commercial Recreation (3) (on demand). Basic steps of initiating and conducting a commercial recreation enterprise; designed to offer students practical experience in starting a business. Two hours lecture, two hours lab. Prerequisite: Consent of instructor.

LMA 363 Leisure Counseling (2) (on demand). A survey of various leisure counseling opportunities as well as techniques utilized by leisure counselors. Emphasis on neuro linguistic programming.

LMA 365 Introduction to Special Populations (3) ii. Leisure needs and methods of serving various groups in a society; populations include the aged, the ill, the disabled, the disadvantaged, and those in penal institutions.

LMA 420 Seminar in Recreation (1) i. Practical preparation for the profession including job-finding skills, interview techniques, values of recreation associations, and visits from field professionals. Prerequisite: LMA 220, 225.

LMA 424 Organization and Administration of Leisure Agencies (3) ii. The internal operation of leisure organizations including staffing, finance, public relations, areas and facilities, decision making, and problem solving. Prerequisite: LMA 220, 225, 323.

LMA 430 Recreation: Field Experience III (9) i, ii, iii. Full-time summer internship with a leisure agency to develop and utilize skills learned in the classroom. Prerequisite: LMA 220, 225, 230, 323, 330.

LMA 450 Independent Study in Leisure Management (1-5) i, ii, iii. Individual research investigation on selected topics or problems in the leisure field. Prerequisite: Consent of department chairperson.

LMA 480 Practicum in Recreation (2) i, ii, iii. An individualized approach to acquire entry-level skills not acquired during curriculum course work. This course may be required by the advisor during a student's senior year.

Elective Physical Education Activity Courses

No activity course can be repeated for credit except 110, 158, and 160. Elective physical education activities will be offered during semesters when staff and facilities are available.

All sports activities are designed for the development of techniques, knowledge, appreciation, and skills used during the individual's lifetime for recreation and fitness.

PED 110 Adaptive Activities (1). A program of activities adapted to the needs of the handicapped and physically restricted student. This class may be repeated for credit with permission of the coordinator of Adaptive Activities.

PED 112 Beginning Racquetball (1). A beginner's course of instruction in the basic skills of racquetball, including the techniques of singles and doubles play. Student must furnish own racquet balls.

PED 113 Beginning Cross-Country Skiing (1). Students must furnish or rent own equipment.

PED 114 Beginning Tumbling and Trampoline (1).

PED 115 Beginning Apparatus Gymnastics (1).

PED 116 Beginning Bait and Fly Casting (1). Introduction to sport fishing with emphasis on casting skills, methods of fishing, fish habitat, conservation practices, and luremaking. Field trip may be required.

PED 117 Beginning Rifery and Trap Shooting (1). Instruction in recreational shooting with emphasis on firearms safety; rifle and shotgun trap marksmanship, emphasizing range practice; methods and techniques of reloading ammunition and cleaning firearms. Students must purchase own ammunition.

PED 118 Beginning Bowling (1). House fee required.

PED 119 Beginning Golf (1). Students must furnish four new golf balls.

PED 120 Beginning Tennis (1). Students must furnish one can of new tennis balls.

PED 121 Beginning Badminton (1). Students must furnish three new shuttlecocks.

PED 122 Beginning Orienteering: Map and Compass (1). An exciting new recreational sport which combines use of map and compass with physical activity; combines several styles of orienteering with practice on actual courses.

PED 123 Beginning Judo (1). Student must furnish gi.

PED 124 Beginning Survival and Primitive Living (1). Instruction in preparing for environmental emergencies with emphasis on the psychological aspect of survival situations and establishment of priorities for sustaining life in an environmental emergency. An overnight experience is required.

PED 125 Beginning Handball (1). Students must furnish own glove.

PED 126 Beginning Squash (1).

PED 127 Beginning Archery (1). Introduction to target and field archery with emphasis on shooting technique and various types of archery games and competition. Students must furnish a matched set of six arrows.

PED 128 Beginning Backpacking (1). Instruction in backpacking with emphasis on equipment orientation, personal conduct within the natural environment, clothing and shelter, preservation of wilderness area integrity, safety, foods, and cooking. Course includes on-the-trail instruction and practicum. All equipment furnished by the department.

PED 129 Beginning Mountaineering (1). Introduction to mountaineering with concentrated instruction in rock climbing; includes equipment orientation, rope handling, belaying, rappelling, traverses, emergency first aid and rescue, mountain weather, alpine living, and clothing principles; particular stress on safety and ethics. All equipment furnished by the department.

PED 130 Beginning Swimming (1). Basic skills in swimming. Swim suit required. Nonswimmers only.

PED 132 Intermediate Swimming (1). Development of swimming strokes. Swim suit required. Prerequisite: Ability to swim.

PED 133 Advanced Swimming and Diving (1). Advanced swimming skills and diving as well as competitive swimming. Swim suit required. Prerequisite: Above-average ability to swim.

PED 134 Life Saving (1). Life-saving techniques as prescribed by American Red Cross Senior Saving Certification for those who qualify. Prerequisite: Above-average ability to swim.

PED 135 Skin and Scuba Diving (1). Techniques and safety for skin and scuba diving. Swim suit and special fee required. Prerequisite: Above-average ability to swim.

PED 136 Recreational Water Sports (1). Water polo, water basketball, and water volleyball with some small-craft activity. Swim suit required. Prerequisite: Above-average ability to swim.

PED 137 Water Safety Instructor (1). Water safety techniques as prescribed by the American Red Cross; W.S.I. Certification for those who qualify. Swim suit required. Prerequisite: Current senior life-saving certification.

PED 138 Beginning Sailing and Canoeing (1). Practical instruction in sailing and canoeing with emphasis on safety and techniques. On-the-water experiences are integral with instruction. Students must be able to swim.

PED 139 Beginning Downhill Skiing (1). Development of basic skills in downhill (Alpine) skiing. Special fee required.

PED 140 Beginning Ice Skating (1). Special fee required.

PED 141 Beginning Karate (1). Students must furnish gi.

PED 142 Hap Ki Do (Self-Defense). A martial art activity with emphasis on self-defense. Students must furnish gi.

PED 144 Beginning Recreational Games (1). Shuffleboard, table tennis, horseshoes, croquet, and others.

PED 145 Aerobic Dance (1). An activity course in which students' cardiovascular endurance is developed through continuous rhythmic exercise and dance set to music; fitness levels are evaluated and prescription of exercise is made based on the approach used by Dr. Kenneth Cooper.

PED 146 Beginning Social Dance (1).

PED 147 Beginning Ballet (1). Introduction to ballet with emphasis on developing style, the basics of body alignment, arm placement, footwork and expressiveness. Students must furnish ballet shoes.

PED 148 Beginning Folk and Square Dance (1).

PED 153 Beginning Modern Dance (1). Students must furnish leotard.

PED 156 Beginning Tap Dance (1). Students must furnish tap shoes.

PED 157 Dance Choreography (1). Designed to teach principles and fundamental dance skills for use in choreography assignments relating to time, space, energy, group relationships, and performance techniques. The choreography is especially relevant to vocal music, musical theatre, and concert dance. Two hours lab. Will not satisfy general education requirement in physical education. Prerequisite: Consent of instructor.

PED 158 Intercollegiate Sports I (1). Intercollegiate athletic team members who are on the men's football, men's basketball, women's volleyball, or women's basketball teams only. This class may be taken up to four times for credit, but will not satisfy general education requirements in physical education. Prerequisite: Consent of coach.

PED 159 Intercollegiate Sports II (1). Intercollegiate athletic team members who are on the men's baseball, men's golf, women's tennis, or women's softball teams only. This class may be taken up to four times for credit, but will not satisfy general education requirements in physical education. Prerequisite: Consent of coach.

PED 160 Dance Participation (1). Limited to members of the MWSC Dance Company. This class may be taken up to four times for credit, but will not satisfy general education requirements in physical education. Prerequisite: Consent of dance company sponsor.

PED 173 Beginning Softball (1).

PED 174 Beginning Field Hockey (1).

PED 175 Beginning Volleyball (1).

PED 176 Beginning Soccer and Speedball (1).

PED 177 Beginning Basketball and Flag Football (1).

PED 183 Beginning Wrestling (1).

PED 184 Beginning Body Dynamics (Figure Improvement) (1).

PED 185 Beginning Weight Training and Conditioning (1).

PED 186 Aerobics (1).

PED 187 Beginning Cycling (1). Students must furnish bicycle.

PED 188 Wilderness Canoeing (1). Comprehensive course in flatwater and river canoeing; emphasizes whitewater paddling technique and personal conduct in wilderness environments; includes wilderness camping skills and expedition dynamics. Class is usually held in Minnesota, south Missouri, or Arkansas.

PED 189 Beginning Pistol and Skeet (1). Pistol and skeet marksmanship, emphasizing range practice; methods and techniques of reloading ammunition and cleaning firearms. Students must provide own ammunition.

PED 193 Special Weight Training Class for Athletes Only. Limited to members of MWSC intercollegiate athletic teams only. May be taken one time only for credit. Will not satisfy general education requirements in physical education. Prerequisite: Consent of athletic coach.

PED 212 Intermediate Racquetball (1). Emphasizes strategy, advanced techniques, and shotmaking. Student must furnish own racquetballs. Prerequisite: PED 112 or consent of instructor.

PED 215 Intermediate Apparatus Gymnastics (1). Prerequisite: PED 115 or consent of instructor.

PED 218 Intermediate Bowling (1). Prerequisite: PED 118 or consent of instructor.

PED 219 Intermediate Golf (1). Students must furnish four new golf balls. Prerequisite: PED 119 or consent of instructor.

PED 220 Intermediate Tennis (1). Students must furnish one can of new tennis balls. Prerequisite: PED 120 or consent of instructor.

PED 223 Intermediate Judo (1). Students must furnish gi. Prerequisite: PED 123 or consent of instructor.

PED 229 Intermediate Rock Climbing (1). Continuation of PED 129. Applied instruction, on-site, in classifying climbs, belay variations, and anchors; protection placements for lead climbing; climbing team organization; aid (class 6) climbing; and protected lead experience. Prerequisite: PED 129 or exhibited competence and skills in basic rock climbing technique.

PED 235 Intermediate Skin and Scuba. Continuation of PED 135. Emphasizes skin and scuba as a leisure activity for a lifetime. Swim suit and special fee required.

PED 239 Intermediate Downhill Skiing (1). Continuation of PED 139. Emphasizes downhill skiing as a leisure activity for a lifetime. Special fee required. Prerequisite: PED 139 or consent of instructor.

PED 250 Intermediate Ice Skating (1). Continuation of PED 140. Emphasizes ice skating as a leisure activity for a lifetime. Special fee required.

PED 253 Intermediate Modern Dance (1). Students must furnish leotard. Prerequisite: PED 153 or consent of instructor.

PED 275 Intermediate Volleyball (1). Prerequisite: PED 175 or consent of instructor.

Department of Psychology

Dr. M. Johnson, *chairperson*

The study of psychology gives the student a better understanding of human nature and of the behavior of oneself and others as individuals and as members of groups. The Department of Psychology offers either a Bachelor of Arts degree or a Bachelor of Science degree. The department also serves other disciplines by offering courses which meet their needs.

Bachelor of Arts or Bachelor of Science Degree Requirements

General Major in Psychology

This program requires 37 credits in the major and can lead to either a B.A. or B.S. degree. In addition to the major requirements, the student must fulfill the requirements for the specific degree program.

Required Core Courses

	<i>Credits</i>
PSY 101 General Psychology	3
PSY 200 Intermediate Psychology	3
PSY 300 Measurements and Appraisals	3
PSY 301 Experimental Psychology	5
PSY 490 Senior Seminar	2
	<hr/> 16

Restricted Elective Core Courses

The student must take at least two courses (6 credits) from each of the following restricted elective core groupings.

Natural science core

PSY 335 Learning and Motivation	
PSY 355 Sensation and Perception	
PSY 345 Animal Behavior	
PSY 350 Physiological Psychology	
PSY 415 Intermediate Statistics for the Behavioral Sciences	
	<hr/> 6

Social science core

PSY 304 Child Psychology	
PSY 310 Industrial Psychology	
PSY 325 Psychology of Personality	
PSY 401 Social Psychology	
PSY 405 Psychology of Communication	
	<hr/> 6

Psychology Electives

The student must take an additional 9 credits of electives in psychology. These electives may be chosen either from the remaining courses in the natural or social science cores or from the other offerings in the catalog.

<i>Total credits for major</i>	<hr/> 37
--------------------------------	----------

Note: It is recommended that all students preparing for graduate school take PSY 330, since this is a requirement for entrance to many graduate schools.

Personnel Psychology Emphasis

This program leads to a B.S. in psychology with emphasis in personnel psychology. The program has the same required course core as the general major program in psychology, with the addition of courses relevant to personnel work. The personnel psychology program requires a minimum of 37 credits in psychology plus 15 credits in the cognate field of business.

This program is recommended for those students seeking employment in personnel work, public relations, or other positions in business or industry where one works closely with employees or the public. It should be noted that the program does not provide technical training in personnel management, but rather a liberal arts background and preparation for on-the-job training.

Required Psychology Core Courses

	Credits
PSY 101 General Psychology	3
PSY 200 Intermediate Psychology	3
PSY 300 Measurements and Appraisals	3
PSY 301 Experimental Psychology	5
PSY 490 Senior Seminar	2
	16

Personnel Psychology Core Courses

PSY 201 Applied Environmental Psychology	3
PSY 210 Mental Hygiene	3
PSY 310 Industrial Psychology	3
PSY 325 Psychology of Personality	3
PSY 401 Social Psychology	3
PSY 405 Psychology of Communication	3
Psychology elective	3
	21

Cognate Field

MGT 110 Business Organization	3
ACC 230 Principles of Financial Accounting	3
MKT 270 Principles of Marketing	3
MGT 312 Principles of Management	3
MGT 412 Personnel Management	3
	15

Total credits for major

52

Minor in Psychology

A minimum of 21 credits in psychology is required. PSY 101 and 200 are required core course totaling 6 credits. The student must take at least one course from each of the restricted elective core groupings (natural science and social science) for a total of 6 credits. The additional 9 credits to meet the 21-credit requirement should be selected with the advice of a member of the department.

Cognate in Psychology — Two Plus Two Program

Students in the Two Plus Two program who elect psychology as a cognate program will obtain an advisor from the psychology department and may be asked to take up to 16

Psychology Courses

PSY 101 General Psychology (3) i, ii, iii. General information about psychology in everyday life, designed to correct misconceptions and to give the student a better understanding of self and others.

PSY 200 Intermediate Psychology (3) i, ii, iii. Introduction to scientific psychology with emphasis on methodology. Prerequisite: PSY 101.

PSY 201 Applied Environmental Psychology (3) i. Considers the applications of psychology in everyday life. Prerequisite: PSY 101, 200; or consent of instructor.

PSY 210 Mental Hygiene (3) i, ii. Considers principles and techniques for maintaining good mental health; the approach is practical rather than descriptive. Prerequisite: PSY 101.

PSY 300 Psychological Measurements and Appraisals (3) i, ii (odd-numbered years). Considers contemporary methods of inventorying individual differences, and the theoretical basis for criteria in constructing, standardizing, and using test instruments, with a brief theoretical introduction and critique of the misuse of psychological tests. Prerequisite: PSY 101, 200.

PSY 301 Experimental Psychology (5) i, ii. Provides training in the techniques and methods of scientific psychology; emphasizes construction of hypotheses, experimental design, data interpretation, and style of reporting research. Three hours lecture, four hours lab. Prerequisite: PSY 101, 200, 300.

PSY 304 Child Psychology (3) i, ii, iii. The psychological growth of the child from conception to puberty, emphasizing the origins and principles of normal personality development. Prerequisite: PSY 101, 200; or consent of instructor.

PSY 309 Abnormal Psychology (3) i, ii. A descriptive and exploratory consideration of abnormal behavior, with a survey of past and present theories, classifications, and therapies. Prerequisite: PSY 101.

PSY 310 Industrial Psychology (3) ii. Psychology for management and employees in business and industry; emphasizes psychological principles helpful to people working with people or serving the public. Prerequisite: PSY 101.

PSY 312 Psychology of the Exceptional Child (3) ii (odd-numbered years). Considers problems and needs of children who noticeably deviate from accepted physical, psychological, and social norms. Prerequisite: PSY 101, 200; or consent of instructor.

PSY 320 Adolescent Psychology (3) ii. A descriptive and explanatory consideration of adolescence, with emphasis on motivation and frustration. Prerequisite: PSY 101, 200; or consent of instructor.

PSY 321 Adulthood and Aging (3) ii (even-numbered years). Examines research and theoretical bases of early, middle, and late adulthood and aging; explores the influence of developmental tasks on career, marriage, health, social and sex roles, morality, and death. Prerequisite: PSY 101.

PSY 323 Psychology of Women (3) i. Evaluation of theories of psychological, cognitive, and personality sex differences, female problems in adjustment, and clinical interventions for women. Prerequisite: PSY 101, 200; or consent of instructor.

PSY 325 Psychology of Personality (3) i. Dynamics of personality development and human behavior; emphasizes theories of personality. Prerequisite: PSY 101, 200; or consent of instructor.

PSY 330 History and Systems in Psychology (3) i. Consideration of the major ways of defining, organizing, and explaining psychological phenomena. Prerequisite: PSY 101, 200.

PSY 335 Learning and Motivation (3) ii (odd-numbered years). Surveys major theories of learning in contemporary psychology, with a brief historical introduction. Prerequisite: PSY 101, 200; or consent of instructor.

PSY 345 Animal Behavior (3) i (odd-numbered years). Introduction to the comparative method in exploring and classifying behavior in animals. Prerequisite: PSY 101, 200; or consent of instructor.

PSY 350 Physiological Psychology (3) i (even-numbered years). Investigates the physiological correlates of behavior. Prerequisite: PSY 101, 200; or consent of instructor.

PSY 355 Sensation and Perception (3) ii (even-numbered years). Considers data and theory concerning sensory and perceptual processes; includes sensory mechanisms, neuropsychological bases of perception, perceptual development, and psychological phenomena encountered in the various senses. Prerequisite: PSY 101, 200; or consent of instructor.

PSY 401 Social Psychology (3) i, ii (even-numbered years). Considers the individual in relation to society; includes theoretical foundations, socialization, social cognition, group dynamics, and leadership. Prerequisite: PSY 101, 200; or consent of instructor.

PSY 405 Psychology of Communication (3) ii (odd-numbered years). Analyzes the elements of interpersonal communication; emphasizes techniques of communicating thoughts and ideas, listening techniques, understanding meaning, utilization of feedback, and reasons for failures to communicate; designed to improve the student's interpersonal relationships. Prerequisite: PSY 101, 200; or consent of instructor.

PSY 410 Introduction to Counseling Psychology (3) ii. Provides an overview of counseling as applied in a variety of institutional settings; reviews differing counseling techniques and theories as well as types of problems encountered in counseling; includes survey of research related to counseling. Prerequisite: PSY 101, 325; or consent of instructor.

PSY 415 Intermediate Statistics for the Behavioral Sciences (3) i (even-numbered years or on demand). Applies basic statistical procedures to behavioral research; considers some statistical procedures not taught in MAT 201, and the use of computers in data analysis. Two hours lecture, two hours lab. Prerequisite: PSY 301 or MAT 201.

PSY 420 Practicum in Psychology (4) i. Provides senior students in psychology the experience of applying their knowledge to an actual situation in the field. An additional 4 credits may be earned by taking PSY 421. Prerequisite: Senior status in psychology and consent of department.

PSY 421 Practicum in Psychology (4) ii. Provides senior students in psychology the experience of applying their knowledge to an actual situation in the field. An additional 4 credits may be earned by taking PSY 420. Prerequisite: Same as PSY 420.

PSY 422 Behavioral Modification (2) ii. Explores the application of behavioristic principles to human problems. Prerequisite: PSY 101, 200; or consent of instructor.

PSY 450 Independent Study (credit hours open) i, ii. By arrangement. Open only to seniors as a means of taking a required course which is not otherwise available. Prerequisite: Consent of department chairperson.

PSY 480 Independent Research (1-5) i, ii. Research on selected topics or problems, on an individual conference basis. Prerequisite: Consent of department chairperson.

PSY 490 Senior Seminar (2) i, ii. Designed for seniors majoring in psychology; emphasizes discussion of current areas of interest in psychology and vocational and educational opportunities. Prerequisite: Consent of instructor.

The Division of Liberal Arts and Sciences

The Division of Liberal Arts and Sciences includes the Departments of Art, Biology, Chemistry, English and Modern Languages, Mathematical Sciences, Music, Social Sciences, and Speech, Theatre, and Humanities.

The division is the essential core of the college. While other divisions largely direct their work toward specific groups within the student body, the Division of Liberal Arts and Sciences is concerned with all students. In contrast to those divisions that are essentially vocational, technical, or professional in their orientation, Liberal Arts and Sciences is primarily concerned with knowledge as a liberating force in the lives of all human beings. Within the division's disciplines, knowledge is investigated as the human endeavor to understand the nature of mankind and the universe, and as the means for developing human potential to its fullest.

To make its work most effective, the division is also concerned with the application of knowledge to specific pursuits, and to the development of competencies in its students. Since Missouri Western State is an open-door college with especially close ties to the community, the division must provide opportunities for growth to all interested students, and also must act as a catalyst in the cultural life of the community. In all its activities, the division must strive for academic excellence.

Department of Art

J. Nelson, *chairperson*

The Department of Art provides a foundation of knowledge and skills in the visual arts which will prepare students to practice art on a professional level. Students may elect either the Bachelor of Arts degree program, which is designed to prepare practicing artists, or the Bachelor of Science in Education degree program, which is designed for students who wish to teach art in the public schools. Both studio courses and historical-critical studies are an integral part of each program. Studio courses introduce the student to a wide variety of media and techniques while providing opportunities to deal with problems related to professional practice. Historical-critical studies acquaint the student with artistic styles, movements, and aesthetic problems in art, and place them in historical perspective.

It is very important that art students consult with their faculty advisors each semester. Students majoring in art are required to undergo a review of their work during the second semester of their junior year. The students are expected to schedule the review with their advisors and submit a representative sampling of work for examination by a committee of the art faculty. The consent of this committee is necessary before the student enrolls for the required Senior Seminar and Exhibit course.

The Department of Art has an active gallery exhibition program and endeavors to expose students to regional and national artists working in the area of visual communication. Studio workshops, critiques, seminars, and lectures by professional artists and scholars, as well as field trips to the numerous galleries and museums in the St. Joseph/Kansas City area, are an integral part of many class experiences.

Bachelor of Arts Degree Requirements

The B.A. requires 16 credits in a single foreign language.

Major In Art

Courses in art must total 57 credits. The following specific courses are required: ART 205, 255, 335, plus 6 additional credits selected from courses in art history; ART 110, 120, 130, 160, 170, 220, 240, 260, 270, 280, 400, 494, plus 9 additional credits in one specific area.

Bachelor of Science in Education Degree Requirements

Major In Art

Courses in art must total 52 credits. The following specific courses are required: ART 205, 255, 335, plus 3 additional credits selected from courses in art history; ART 110, 120, 130, 160, 170, 220, 240, 270, 280, 300, 350, 400, 494, plus 4 additional credits selected from courses in art.

History and Appreciation of Art Courses

ART 100 Introduction to Art (3) i, ii, iii. General background in the history, philosophy, principles, and techniques of the visual arts. Not for art majors.

ART 205 Ancient through Medieval Art (3) i. History of art in western civilization: prehistoric times through the Middle Ages.

ART 255 Renaissance through Modern Art (3) ii. History of art in western civilization: Renaissance through modern times. Prerequisite: ART 205 or consent of instructor.

ART 305 Art of Eastern Civilization (3) i (even-numbered years). The history of art in eastern civilization from earliest records to the present day; visual arts of India, China, and Japan. Prerequisite: ART 205 and 255, or consent of instructor.

ART 335 Art Theory and Criticism (3) i. Examination of critical thought in art theory, philosophy, and criticism. Prerequisite: ART 205, 255, and completion of freshman core curriculum in art, or consent of instructor.

ART 355 American Art (3) ii (odd-numbered years). Development of art in the United States. Prerequisite: ART 205 and 255, or consent of instructor.

ART 405 Nineteenth Century Art (3) i (odd-numbered years). Major movements in nineteenth century painting, sculpture, and architecture. Prerequisite: ART 205 and 255, or consent of instructor.

ART 450 Independent Study in Art (1-5) i, ii. Investigation of selected problems or topics on an individual conference basis. Prerequisite: Completion of the major-minor application form in art, consent of department chairperson, and minimum 2.5 GPA in major field of study.

ART 455 Twentieth Century Art (3) ii (even-numbered years). Art in the twentieth century. Prerequisite: ART 205 and 255, or consent of instructor.

ART 494 Senior Seminar and Exhibit (1) i, ii, iii. Class session on professional topics; preparation and presentation of an exhibition of the student's personal art work. Prerequisite: Consent of the Junior Review Committee.

Studio Art Courses

ART 110 Beginning Drawing I (3) i, ii, iii. Elementary drawing with the figure, still life, landscape, and perspective in various media. Six studio hours.

ART 120 Two-Dimensional Design (3) i. Exploration of design principles and fundamentals in two-dimensional media using a problem-solving approach. Six studio hours.

ART 130 Introduction to Tools and Techniques (2) i, ii. Basic skills with studio hand tools and power equipment; emphasizes safety procedures. This course is a prerequisite for any studio art course except ART 110 and 120. Four studio hours.

ART 160 Beginning Drawing II (3) i, ii. The figure in various media; still life, landscape, and nonobjective directions; problems dealing with the complete drawing. Six studio hours. Prerequisite: ART 110.

ART 170 Three-Dimensional Design (3) ii. Emphasis on form and composition using a problem-solving approach; exploration of a wide variety of three-dimensional materials and processes. Six studio hours. Prerequisite: ART 120 and ART 130.

ART 220 Beginning Ceramics (3) i, ii. Traditional and contemporary approaches to ceramics as an art form; emphasizes technical, historical, and aesthetic problems. Six studio hours. (Students must purchase the clay they use.)

ART 230 Beginning Jewelry (2) ii. Basic jewelry techniques relating to design and sheet stock fabrication. Four studio hours.

ART 240 Beginning Printmaking (3) i, ii. Relief and intaglio printmaking processes. Six studio hours. Prerequisite: ART 120 and 160.

ART 260 Beginning Photomedia (3) i. Black-and-white photographic processes and problems; student must have access to a camera with adjustable aperture and shutter speed. Six studio hours. Prerequisite: ART 110 and 120.

ART 270 Beginning Painting (3) i, ii. Color, composition, and technique; the figure, still life, and nonobjective problems. Six studio hours. Prerequisite: ART 130 plus 6 credits in drawing.

ART 280 Beginning Sculpture (3) i. Basic foundations in sculpture: theory, techniques, materials, processes. Six studio hours. Prerequisite: ART 130 and 170.

ART 290 Beginning Graphic Design (3) ii. Composition and layout with emphasis on color, type, and proportion. Six studio hours. Prerequisite: ART 120, 160, 260.

ART 300 Elementary Art Teaching: Philosophy and Methods (3) i, ii, iii. Current methods and materials for the teaching of art in the elementary grades; theory and experience with elementary school art projects. Prerequisite: EED 202 or consent of instructor.

ART 310 Intermediate Drawing (3) i, ii. The figure in various media; still life, landscape, and nonobjective directions; intermediate problems dealing with the complete drawing. Six studio hours. Prerequisite: ART 160.

ART 320 Intermediate Ceramics (3) i, ii. Concentrates on handbuilding and throwing techniques; introduces kiln firing and glaze formulation. Six studio hours. (Students must purchase the clay they use.) Prerequisite: ART 220 and consent of instructor.

ART 330 Intermediate Jewelry (2) ii. Continuation of basic jewelry-making techniques; emphasis on casting techniques, handling of metals, and related materials. Four studio hours. Prerequisite: ART 230.

ART 340 Intermediate Printmaking (3) i, ii. Continued exploration of relief and intaglio processes; introduction to serigraphy. Six studio hours. Prerequisite: ART 240.

ART 350 Secondary Art Teaching: Philosophy and Methods (3) ii (even-numbered years). Teaching methodologies and materials for the secondary school art teacher; design of appropriate art learning experiences for the adolescent. Prerequisite: ART 300 or consent of instructor.

ART 360 Intermediate Photomedia (3) i. Continued study of black and white photographic processes and problems with an introduction to some color photographic processes and problems. Six studio hours. Prerequisite: ART 260.

ART 370 Intermediate Painting (3) i, ii. Continuation of exploration with color, composition, and technique; figurative and nonobjective directions. Six studio hours. Prerequisite: ART 270.

ART 380 Intermediate Sculpture (3) i. Sculptural theory, concepts, techniques, materials, and processes at the intermediate level. Six studio hours. Prerequisite: ART 280.

ART 390 Intermediate Graphic Design (3) ii. Continued study of composition and layout with an introduction to preparing mechanicals and camera-ready art work. Six studio hours. Prerequisite: ART 290.

ART 400 Composition in Art (3) i. Studio problems in composition using a wide variety of media and materials; emphasizes studio projects and critiques. Six studio hours. May be repeated for a maximum of 9 credits. Prerequisite: ART 170 and 6 credits in drawing.

ART 410 Advanced Drawing (3) i, ii. The figure in various media; advanced problems dealing with drawing as a complete form. Six studio hours. May be repeated for credit. Prerequisite: ART 310.

ART 420 Advanced Ceramics (3) i, ii. Advanced techniques and problems in ceramics. Six studio hours. May be repeated for credit. (Students must purchase the clay they use.) Prerequisite: ART 320 and consent of instructor.

ART 430 Advanced Jewelry (2) ii. Independent problems in advanced jewelry-making techniques. Four studio hours. May be repeated for credit. Prerequisite: ART 330.

ART 440 Advanced Printmaking (3) i, ii. Advanced problems in relief, intaglio, and serigraphy processes. Six studio hours. May be repeated for credit. Prerequisite: ART 340.

ART 460 Advanced Photomedia (3) i. Advanced study of black and white and some color photographic processes and problems. Six studio hours. May be repeated for credit. Prerequisite: ART 360.

ART 470 Advanced Painting (3) i, ii. Advanced problems dealing with color and composition; figurative and nonobjective directions. Six studio hours. May be repeated for credit. Prerequisite: ART 370.

ART 480 Advanced Sculpture (3) i. Advanced techniques in various media emphasizing individual experience. Six studio hours. May be repeated for credit. Prerequisite: ART 380.

ART 490 Advanced Graphic Design (3) ii. Advanced study of composition and layout with an emphasis in preparing mechanicals and camera-ready art work. Six studio hours. May be repeated for credit. Prerequisite: ART 390.

Department of Biology

Dr. R. Crumley, *chairperson*

Biology students study all forms of life at the molecular, organismal, and population levels of complexity. Students work in well-equipped laboratories using current tools and techniques, and in the department's wilderness area studying life in its natural environment. Independent study and special problems are offered for advanced students.

The biology curriculum consists of core courses taken by all biology majors, followed by biology electives in specific area. The department curriculum provides excellent preparation for prospective science teachers, graduate students, and research biologists, among other, and for professional programs in medicine, dentistry, and veterinary medicine.

Earth Science and Physical Science (for the elementary teacher) are also listed in the biology department.

Bachelor of Arts Degree

The B.A. requires 16 credits in a single foreign language.

Major in Biology

Courses in biology must total 36 credits. The following specific courses are required: BIO 111, 112, 209, 210, 311 or 340, 312, 411, 470, plus 9 additional credited selected from biology courses numbered 300 or higher, of which a minimum of 3 credits must be in plant science; CHE 111, 120, 310, 311, 370; MAT 105 and 201; PHY 110.

Bachelor of Science Degree

Major in Biology

Courses in biology must total 40 credits. The following specific courses are required: BIO 111, 112, 209, 210, 311 or 340, 312, 411, 470, plus 13 additional credits selected from biology courses numbered 300 or higher, of which a minimum of 3 credits must be in plant science; CHE 111, 120, 310, 311, 370; MAT 105 and 201; PHY 110.

Major in Natural Science with Biology Emphasis

Courses in biology must total 31 credits. The following specific courses are required: BIO 111, 112, 209, 210, 311 or 340, 312, 390, 411; CHE 111, 120, 310, 311, 321, 370; PHY 110 and 111; MAT 105 and 201; CSC 182; ESC 111.

Bachelor of Science in Education Degree

Major in Biology/Chemistry Minor

Courses in biology must total 36 credits. The following specific courses are required: BIO 111, 112, 209, 210, 311 or 340, 312, 380, 411, 470, plus 3 additional credits selected from BIO 350, 405, 406; 3 additional credits of biology electives; CHE 111, 120, 310, 311, 370; MAT 105 and 201; PHY 110.

Major in Biology/General Science Minor

Courses in biology must total 36 credits. The following specific courses are required: BIO 111, 112, 209, 210, 311 or 340, 312, 380, 411, 470, plus 3 additional credits selected from BIO 350, 405, 406; 3 additional credits of biology electives; CHE 111, 120; MAT 105 and 201; PHY 110; ESC 111 and 120. This degree will allow state certification in Missouri for teaching biology 9-12, general science and physical science in grades 7-9.

Minor in Biology

A minor in biology consists of a minimum of 20 credits including BIO 101 or 111, plus at least one course from each of the four areas listed below.

Environmental biology: BIO 305, 209

Physiology: BIO 250, 311 or 340

Taxonomic biology: BIO 350, 405, 406, 415, 416

Biology electives: BIO 252, 260, 210, 320, 390, 411

Careful attention must be given to course prerequisites in the planning of the minor program.

Biology Courses

BIO 101 Principles of Biology (5) i, ii, iii. Principles of living phenomena; meets the general education biological science requirement. Will substitute for BIO 111 for a student who earns a grade of C or better and subsequently majors in biology. Four hours lecture, two hours lab.

BIO 111 General Biology (3) i. Phenomena associated with living organisms; primarily for biology majors. Two hours lecture, three hours lab.

BIO 112 Diversity of Life (3) ii. The major taxonomic groups of plants and animals. Two hours lecture, three hours lab. Prerequisite: BIO 111.

BIO 190 Personal Nutrition and Weight Control (2) i. Basic concepts of nutrition, application to personal and family nutrition; nutrition of the infant, elderly, pregnant, lactating, and diabetic; other current topics in nutrition. Credit for this course is not applicable toward a major in biology.

BIO 209 Environmental Biology (4) i. Basic concepts and field techniques used in studying the relationships of organisms to their environment. Three hours lecture, three hours lab. Prerequisite: BIO 111 and 112.

BIO 210 Cellular Biology (4) i. Molecular cell structure with relationship to such cell functions as transport, chemical transformations, growth, and reproduction. Three hours lecture, two hours lab. Prerequisite: BIO 111 and CHE 120, or consent of instructor.

BIO 250 Anatomy and Physiology (5) i, ii, iii. Concepts of human function and structure and relationship of these concepts to cells, tissues, organs, and systems. Four hours lecture, three hours lab. Credit for this course is not applicable toward a major in biology. Prerequisite: BIO 101 or consent of instructor.

BIO 251 Medical and Public Health Microbiology (4) i, ii, iii. Introductory concepts of microorganisms, their characteristics, relationships to disease, means of transmission, and methods of control. Three hours lecture, three hours lab. Credit for this course is not applicable toward a major in biology.

BIO 252 Basic Nutrition (3) ii. The science of human nutrition and its importance in the maintenance of health; translation of the basic principles of nutrition to the needs of individuals. Credit for this course is not applicable toward a major in biology.

BIO 260 Human Sexuality (3) i. Biological, sociological, and psychological aspects of human sexuality. Credit for this course is not applicable toward a major in biology.

BIO 301 Ecology Seminar (1) spring intersession. Interrelationships of fish, game, forest, the physical environment, and mankind. May be repeated for a maximum of 2 credits. Course grades assigned on pass-fail basis.

BIO 305 Human Ecology (3) ii. Mankind and the environment; ecological principles, population, pollution, resources. Prerequisite: BIO 101.

BIO 311 Human Physiology (4) ii. The physiological systems, their functions and interactions in human physiology; comparisons within the animal kingdom. Three hours lecture, two hours lab. Prerequisite: BIO 111 or consent of instructor.

BIO 312 Genetic Biology (4) ii. Hereditary and adaptive principles as applied to plants and animals. Three hours lecture, three hours lab. Prerequisite: BIO 210 and MAT 201, or consent of instructor.

BIO 320 Histology (3) i (even-numbered years). Identification and description of microscopic structure, organization of tissues and organs, preparation of tissues for observation and study. Two hours lecture, three hours lab. Prerequisite: BIO 111 or consent of instructor.

BIO 340 Plant Physiology (4) i (odd-numbered years). Plant functions; emphasis on water relations, mineral nutrition, plant biochemistry, development, and responses to environmental factors in higher plants. Three hours lecture, two hours lab. Prerequisite: BIO 210.

BIO 350 Plant Systematics (3) i (even-numbered years). Identification, characteristics, and importance of seed plants; studies classification, techniques, and literature of taxonomy. Requires a plant collection and field trips. Two hours lecture, two hours lab. Prerequisite: BIO 111 and 112.

BIO 375 Pathophysiology (5) ii. Disease and physiological disorders produced by disease; origin, incidence, symptoms, and therapy of diseases. Three hours lecture, two hours lab. Prerequisite: Completion of the A.S. in nursing, or BIO 210 and 311 with grades of C or better.

BIO 380 Biology Teaching: Materials and Methods (3) ii (even-numbered years). Using the laboratory and demonstrations to teach basic biological concepts. Students enrolled in this course must also be available to work in one of the scheduled BIO 101 labs. Prerequisite: 20 credits in science, or consent of instructor.

BIO 390 Microbiology (5) i. Identification, characteristics, and importance of common forms of microorganisms; their application to the needs of man, infectious diseases and immunity, microbiology of air, water, foods, and their uses in industrial and scientific processes. Three hours lecture, four hours lab. Prerequisite: BIO 111 or 112.

BIO 400 Microbiology of Human Disease (5) ii (odd-numbered years). Pathogenic microorganisms, medically important parasites of man; immunological principles, collection, isolation, and identification techniques. Three hours lecture, four hours lab. Prerequisite: BIO 390 with a grade of C or better.

BIO 405 Plant Morphology: Nonvascular Plants (3) i (odd-numbered years). Structure, development, and relationships of algae, fungi, and bryophytes. Two hours lecture, two hours lab. Prerequisite: BIO 111 and 112.

BIO 406 Plant Morphology: Vascular Plants (3) ii (even-numbered years). Structure, development, and relationships of vascular plants. Two hours lecture, two hours lab. Prerequisite: BIO 111 and 112.

BIO 411 Developmental Biology (4) ii. Plant and animal development; formation of organs and organ systems. Three hours lecture, three hours lab. Prerequisite: BIO 111 and 112.

BIO 412 Seminar in Biology (1). Individual reports and group discussion on problems and current research in biology. May be repeated for a maximum of 2 credits. Prerequisite: Consent of instructor.

BIO 415 Invertebrate Zoology (3) i (even-numbered years). Comparative anatomy and biological principles of the invertebrates. Two hours lecture, two hours lab. Prerequisite: BIO 111 and 112.

BIO 416 Vertebrate Zoology (3) ii (odd-numbered years). Principles and evolution of vertebrate structure and function. Two hours lecture, two hours lab. Prerequisite: BIO 111 and 112.

BIO 420 Biology Practicum (1) i, ii, iii. Supervised experience in the development and use of laboratory materials for biology classes. Student will serve as a resource person in beginning biology laboratories. Prerequisite: Junior or senior standing with filed major-minor application form in biology, and consent of department chairperson.

BIO 421 Immunology (4) ii (even-numbered years). A lecture-laboratory course dealing with the principles of immunology. Topics include: antigens, immunoglobulin, complement, antigen-antibody interactions, B-cells, T-cells, immunotolerance, suppression, immediate/delayed hypersensitivities, immunogenetics, transplantation and tumor immunology, immune proliferative and deficiency syndromes, autoimmunity, immunity to infection. Prerequisite: BIO 390 or consent of instructor and CHE 310 (concurrent enrollment, minimally).

BIO 470 Current Literature of Biology (1) ii. Research in major journals and other literature in the area of biology. For biology majors. Prerequisite: Consent of instructor.

BIO 495 Special Problems in Biology (1-5) i, ii, iii. Individual research on problems within the various fields of biology. The student will be required to present the results of the investigation at a public seminar. Prerequisite: Junior or senior standing with filed major-minor application form in biology, 2.5 GPA in biology courses, and consent of instructor and department chairperson.

Earth Science Courses

ESC 111 Physical Geology (4) i, ii. Survey of geologic materials and processes.

ESC 120 Meteorology (3) ii (odd-numbered years). Studies the nature and phenomena of the atmosphere and surveys climates and their classification.

Department of Chemistry

Dr. R. Schwarz, *chairperson*

The Department of Chemistry deals with a core of knowledge essential to much of the scientific experimentation that influences our daily lives. From atomic theories to basic chemical structures, the prospective chemist studies that material which forms a basis for important work in engineering, pharmacy, medicine, medical technology, dentistry, and research chemistry.

The chemistry program is accredited by the American Chemical Society (ACS); students completing the proper ACS curriculum will thus be certified by the society and department.

The department also assists in the preparation of prospective science teachers. These students, as well as those who study chemistry as part of their basic education, work in new facilities fully equipped for investigating contemporary chemistry topics.

Bachelor of Arts Degree Requirements

The B.A. requires 16 credits in a single foreign language.

Major in Chemistry

Courses in chemistry must total 35 credits. The following specific courses are required: CHE 111, 120, 310, 311, 312, 313, 321, 381, 382, 495, plus an additional 5 credits from chemistry courses numbered 300 or higher; MAT 107, 108, 209; PHY 110; GER 102, 112, 202, 212.

Bachelor of Science Degree Requirements

Major in Chemistry

Courses in chemistry must total 48 credits. The following specific courses are required: CHE 111, 120, 310, 311, 312, 313, 321, 381, 382, 383, 384, 426, 440, 441, 490 (2 hours), 495; MAT 107, 108, 209; PHY 210 and 211; two courses selected from: CSC 188, GER 102, 122, MAT 312, PHY 212. (More than the minimum of two elective courses is recommended for the student planning to enter a graduate program in chemistry.)

Major in Medical Technology

Missouri Western State College offers a program leading to the Bachelor of Science degree with a major in medical technology. The first three years of the program are spent completing specified college course work (94 credits). The fourth year is spent in an affiliated hospital which provides a structured educational program in a clinical laboratory. The clinical program is accredited by the Committee on Allied Health Education and Accreditation of the American Medical Association through the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). When a student successfully completes the hospital clinical program, Missouri Western State College will award 30 credits for the fourth year's work.

Acceptance into a clinical laboratory program is highly competitive. Enrollment in the college program does not guarantee acceptance of the student into a clinical program. The student must make separate application to a hospital for the clinical program, which

consists of twelve months of full-time day clinical instruction. Clinical programs in the Kansas City area are located at the following hospitals: Baptist Memorial, Menorah, North Kansas City Memorial, Providence-St. Margaret Health Center, Research, St. Mary's, and Trinity Lutheran. Presently most Kansas City-area hospitals participate in a common acceptance-date system. Students should consult the medical technology advisor at the college to ascertain the time schedule for application to the clinical program and the approximate date when acceptance notices will be given.

Upon completion of the clinical program, students are eligible to take a national credentialing examination. Passing the examination is not a requirement for the Bachelor of Science degree with a major in medical technology; however, the student must pass the examination to become certified to practice as a medical technologist.

Degree Requirements: Courses in the natural sciences and mathematics must total 57 credits; courses in medical technology must total 31 credits. The following specific courses are required: CHE 111, 120, 310, 311, 321, 326, 370; BIO 111, 311, 390, 400, 421; MAT 105, 106; PHY 101 or 110; MTE 105, 430, 432, 434, 436, 440, 442.

Major In Natural Science with Chemistry Emphasis

Courses in the natural sciences and mathematics must total 70 credits. The following specific courses are required: CHE 111, 120, 310, 311, 321, 370, 495, plus an additional 7 credits selected from chemistry courses numbered 300 or higher; BIO 111, 210, 311, plus an additional 12 credits selected from biology courses numbered 300 or higher; PHY 110 and 111; MAT 105, 106, 201 or MAT 107 and 201.

Bachelor of Science In Education Degree Requirements

Major In Chemistry

Courses in chemistry must total 30 credits. The following specific courses are required: CHE 111, 120, 310, 311, 321, 381, 382, 465, 495, plus an additional 3 credits from chemistry courses numbered 300 or higher; MAT 107, 108, 209; PHY 110 and 111.

Minor In Chemistry

A minor in chemistry consists of 18 credits in chemistry, including CHE 111 and CHE 120 plus elective courses in chemistry numbered 300 or higher.

Chemistry Courses

The student must furnish required laboratory apron and safety glasses in laboratory courses. A \$2 refundable laboratory deposit is also required.

CHE 101 Introductory Chemistry (5) i, ii, iii. Chemistry for liberal arts and sciences students; meets the minimum physical science requirement. Three hours lecture, one hour discussion, two hours lab.

CHE 104 Fundamentals of Chemistry (4) i, ii, iii. A survey of chemistry with special emphasis on solution and biochemistry; for students majoring in scientific and technological fields such as nursing or agriculture. Three hours lecture, two hours lab.

CHE 111 General Chemistry I (5) i, ii. Basic concepts of chemistry: atomic theory and periodic system, chemical calculations, oxidation-reduction, states of matter, theory of chemical bonding, atomic structures. Three hours lecture, one hour discussion, three hours lab. Prerequisite: 2 units of algebra; high school chemistry is recommended.

CHE 120 General Chemistry II (5) i, ii. Continuation of CHE 111. Thermochemistry, equilibrium, electrochemistry, radiochemistry, coordination chemistry, and a survey of the main group elements and their compounds. Laboratory includes the topics above along with the separation and identification of some of the more common anions and cations by qualitative analysis. Three hours lecture, six hours laboratory. Prerequisite: CHE 111 with a grade of C or better.

CHE 204 Agricultural Organic Chemistry (4) ii (odd-numbered years). The aliphatic and aromatic series; fundamentals and reactions, relationship to the life processes and to the agricultural sciences. Three hours lecture, three hours lab. Prerequisite: CHE 104 with a grade of C or better.

CHE 304 Biochemistry and Natural Products (3) i (odd-numbered years). Chemistry of biologically important compounds; emphasizes their relationship to agriculture. Three hours lecture. Prerequisite: CHE 204 or consent of instructor.

CHE 310 Organic Chemistry I (3) i, ii. Methods of synthesis of organic compounds, reaction paths, chemical bonding, and geometry of organic molecules; aliphatic and aromatic compounds. Three hours lecture. Prerequisite: CHE 120 with a grade of C or better.

CHE 311 Organic Chemistry Laboratory I (2) i, ii. Laboratory course to accompany CHE 310. Six hours lab. Prerequisite: Concurrent enrollment in CHE 310.

CHE 312 Organic Chemistry II (3) ii. Continuation of CHE 310. Three hours lecture. Prerequisite: CHE 310 with a grade of C or better.

CHE 313 Organic Chemistry Laboratory II (2) ii. Laboratory course to accompany CHE 312. Six hours lab. Prerequisite: Concurrent enrollment in CHE 312.

CHE 321 Quantitative Analysis (4) i. Analytical chemistry; gravimetric, volumetric, colorimetric, and electro-analytical determinations. Two hours lecture, six hours lab. Prerequisite: CHE 120 with a grade of C or better.

CHE 326 Instrumental Analysis (4) ii. Theories and methods in modern instrumental analysis. Two hours lecture, six hours lab. Prerequisite: CHE 321 with a grade of C or better.

CHE 370 Biochemistry (4) ii. Chemistry of biological compounds, metabolism, and biochemical genetics. Three hours lecture, three hours lab. Prerequisite: CHE 310 and 311 with a grade of C or better.

CHE 381 Physical Chemistry I (3) i. Thermodynamics, properties of solutions, phase equilibria, chemical equilibrium, and conductivity. Three hours lecture. Prerequisite: CHE 311 with a grade of C or better; MAT 209 (may be taken concurrently); PHY 210, 211, or consent of instructor.

CHE 382 Physical Chemistry Laboratory I (2) i. Laboratory course to accompany CHE 431. Six hours lab. Prerequisite: Concurrent enrollment in CHE 381.

CHE 383 Physical Chemistry II (3) ii. Continuation of CHE 381. Electrochemistry, chemical kinetics, absorption and emission spectroscopy, and introduction to quantum chemistry. Three hours lecture. Prerequisite: CHE 381 with a grade of C or better.

CHE 384 Physical Chemistry Laboratory II (2) ii. Laboratory course to accompany CHE 383. Six hours lab. Prerequisite: Concurrent enrollment in CHE 383.

CHE 426 Instrumental Methods (5) ii. Modern methods of chemical instrumentation; includes both practical application and fundamental theories of instrumental analyses. Three hours lecture, six hours lab. Prerequisite: CHE 381, 382.

CHE 440 Advanced Organic Chemistry (3) ii (even-numbered years). Modern mechanistic interpretations of the relations between structure and reactivity; the roles of reactive intermediates such as carbonium ions, carbanions, carbenes, and radicals in reactions; molecular orbital theory, Hammett acid-base theory; factors which influence the equilibria and reaction mechanisms of organic molecules. Prerequisite: CHE 310, 312, 381 or consent of instructor.

CHE 441 Advanced Inorganic Chemistry (3) ii (odd-numbered years). Modern concepts of inorganic chemistry, encompassing chemical bonding theories, acid-base theories, mechanisms of inorganic chemistry, symmetry in molecules, inorganic thermodynamics, and atomic and molecular structure. Three hours lecture. Prerequisite: CHE 381, 382.

CHE 450 Independent Study in Chemistry (1-5) i, ii. Investigation of selected problems or topics on an individual conference basis. Prerequisite: Completion of major-minor application form in chemistry, minimum 2.5 GPA in major field, and consent of department chairperson.

CHE 465 Chemistry Teaching: Methods and Techniques (2) ii. Modern techniques in teaching high school chemistry: use of audiovisual equipment, project approach, lesson planning, and difficulties in chemistry instruction at the secondary level. Prerequisite: Senior standing.

CHE 490 Research in Chemistry (1-3) i, ii. Original research on problems in various fields of chemistry. Hours arranged. Prerequisite: CHE 381, 382, or consent of department chairperson.

CHE 495 Seminar in Chemistry (1) i. Individual reports and group discussion on modern topics in chemistry. Prerequisite: Senior standing or consent of instructor.

Medical Technology Courses

MTE 105 Introduction to Health Science (1) i. Survey of the various health fields; job descriptions, employment opportunities, educational requirements, personal qualifications. One hour lecture.

The following courses are taken by fourth-year students enrolled in the clinical laboratory program as a part of the requirements for the degree in medical technology. These courses are not offered on the Missouri Western State College campus; they are provided in a twelve-month internship program in a hospital affiliated with Missouri Western State College and approved by the Society of Clinical Pathologists.

MTE 430 Clinical Microbiology (6-8). the theory and laboratory study of pathogenic bacteria, viruses, rickettsiae, fungi, and parasites; includes specimen handling, methods of isolation, cultivation, diagnostic procedures, asepsis, environmental monitoring, medical significance, and quality control.

MTE 432 Clinical Chemistry (6-10). Identification and quantitation of specific chemical substances in blood and body fluids by various analytical techniques; clinical correlation with diagnosis and treatment of disease; principles of instrumentation; toxicology; and quality control.

MTE 434 Clinical Hematology (4-7). Theory of blood cell formation; morphology of cellular constituents; disease states; hemostasis; and coagulation testing; includes techniques and instrumentation used to determine major hematological and clotting parameters and quality control procedures.

MTE 436 Clinical Immunohematology (3-4). Studies the common blood group systems; principles and procedure for antigen-antibody detection; cross-matching; blood collection and preservation; processing; the evaluation of transfusion reaction; and quality control procedures.

MTE 438 Clinical Immunology (2-6). Characteristics of antigen/antibody function and interaction; principles and procedures of humoral and cellular immune responses; performance of serological procedures; clinical correlation of abnormalities; and quality control.

MTE 440 Clinical Urinalysis (1-3). Studies renal physiology and function in health and disease states; includes chemical and microscopic examination of urine, other excreta, and body fluids in relation to disease processes, along with quality control procedures.

MTE 442 Topics in Medical Technology (0-4). Subject matter may include the following: hospital orientation, laboratory management, radioisotope techniques, quality control procedures, laboratory safety, special projects, special techniques, and seminars on various subjects deemed necessary by hospital personnel.

Physical Science Courses

PHS 230 Physical Science for Elementary Teachers (3) i, ii. Basic concepts of the physical sciences; emphasizes topics taught in grades K-6. Prerequisite: BIO 101 and either PHY 101 or CHE 101.

Department of English and Modern Languages

Dr. J. Frick, *chairperson*

The Department of English and Modern Languages offers major programs in English leading to the Bachelor of Arts degree and the Bachelor of Science in Education degree. Minor programs are also offered in English, French, German, Spanish, and journalism.

In its various programs and offerings, the Department of English and Modern Languages works toward four goals: (1) an improvement of communication skills through practice in diverse types of expository and imaginative writing; (2) a development of critical thinking through exposure to and interpretation of the various world views offered in literary works; (3) an increased appreciation of literature, its backgrounds, history, and values through an analysis and discussion of authors and literary works covering a wide range of attitudes, perspectives, and expressions; (4) a deeper understanding of one's own culture and a tolerance and acceptance of things foreign through a study and appreciation of another language and culture.

In all of its programs, the department encourages its students to grow in self-knowledge and the knowledge of others through its emphasis on the humane and liberal characteristics of its offerings.

Bachelor of Arts Degree Requirements

The B.A. requires 16 credits in a single foreign language.

Major in English, Communications Emphasis

The Bachelor of Arts degree in English with a communications emphasis is designed for students interested in entering business or seeking careers such as public relations work which demand a knowledge of and proficiency in communication skills.

The requirements for a Bachelor of Arts degree in English with a communications emphasis include the satisfactory completion of the following courses for a total of 45 credits: ENG 224, 232, 248, 310 or 312, ENG 316 or JOU 316, ENG 322 or JOU 322, ENG 338, 334, 360 or 362, plus an additional 3-credit literature course numbered above 300; JOU 102 or SPH 204, SPH 310; 6 credits of additional electives selected from the following: JOU 302, 306, 315; SPH 305, 324, 345, 410; PSY 405.

Major in English, Literature Emphasis

The Bachelor of Arts degree in English with a literature emphasis is a broad-based program providing students with a wide perspective on literature, language, and world views. The program prepares students to pursue graduate work in English or related disciplines, or to enter areas of the business/professional community seeking people with a broad liberal education.

The requirements for a Bachelor of Arts degree in English with a literature emphasis include the satisfactory completion of the following courses for a total of 45 credits: ENG 224, 232, 310, 312, 316 or additional course in literature numbered above 300, 332, 360, 362, 368, 390 or 426 or 478, 420 or 422, 484, 488; two British literature courses numbered 300 or above.

Major In English, Writing Emphasis

The Bachelor of Arts degree in English with an emphasis in writing concentrates on the imaginative, expository, and journalistic modes of written discourse. Students interested in pursuing graduate work emphasizing writing, or seeking employment with companies or businesses demanding proficiency in written communication skills, are advised to select this program. Students interested in journalistic writing are also encouraged to minor in journalism. Such students should consult the journalism faculty for advisement.

The requirements for a Bachelor of Arts degree in English with a writing emphasis include the satisfactory completion of the following courses for a total of 45 credits: ENG 224, 232, 248, 310 or 312, ENG 316 or JOU 316, ENG 322 or JOU 322, ENG 334, 338, 360 or 362; JOU 102, 202, 302, JOU 314 or ENG 484; two additional literature courses numbered above 300.

Bachelor of Science in Education Degree Requirements

Major In English

The Bachelor of Science in Education degree program leads to certification to teach English in the Secondary schools. Students who pursue this program should consider teaching their immediate career goal.

The requirements for a Bachelor of Science in Education degree with a major in English include the satisfactory completion of the following courses for a total of 45 credits: ENG 224, 232, 310, 312, 332, 334, 360, 362, 368, 400, 465, 484, 488; two additional literature courses numbered 300 or above.

Minor Programs in English, Journalism, and Modern Languages

In addition to the major programs in English and English education, the Department of English and Modern Languages offers minors in English, journalism, French, German, and Spanish.

Minor In English, Literature Emphasis

The minor in English provides students with an opportunity to broaden their understanding and appreciation of literature and culture, and to improve their communication skills. As such, the minor is a valuable asset to those seeking careers in the professional or business world.

The requirements for a minor in English include the satisfactory completion of the following courses for a total of 21 credits: ENG 224, 310 or 312, 360 or 362, 368, 420 or 422; two British literature courses numbered above 300.

Minor in English, Education Emphasis

Structured to meet the requirements for teacher certification, the following minor in English is specifically offered to prepare students to teach English in grades 7 through 12.

The requirements for the minor in English include the satisfactory completion of the following courses for a total of 27 credits: ENG 224, 232, 310 or 312, 334, 360 or 362, 400, 465; additional 3-credit American literature course; additional 3-credit British or world literature course.

Minor In Journalism

The requirements for the minor in journalism include the satisfactory completion of the following courses for a total of 24 credits: JOU 102, 202, 210 or 212, 304, 306, 310 or 312, 314; plus 5 credits of additional journalism electives. JOU 210, 212, 310, or 312 may be repeated for a total of 8 credits each, but none of these courses will be counted for more than 2 credits toward the minor in journalism. (ENG 224 and 338 are acceptable electives in the journalism minor. Journalism students are encouraged to develop typing proficiency and learn to handle a camera as soon as possible.)

Minor In French

The requirements for the minor in French include the satisfactory completion of the following courses for a total of 24 credits: FRE 102, 112, 202, 212, 300 (two semesters).

Minor In German

The requirements for the minor in German include the satisfactory completion of the following courses for a total of 24 credits: GER 102, 112, 202, 212, 300 (two semesters).

Minor In Spanish

The requirements for the minor in Spanish include the satisfactory completion of the following courses for a total of 24 credits: SPA 102, 112, 202, 212, 300 (two semesters).

Teacher Certification in Foreign Language

State certification to teach foreign language in grades K-12 in Missouri requires 30 credits in the language to be taught or 27 credits plus 2 or more earned units of high school credit in that language.

State certification to teach foreign language in grades K-9 in Missouri requires 21 credits in the foreign language to be taught or 18 credits plus 2 or more earned units of high school credit in that language.

English Composition and Language Courses

ENG 100 Basic Written Communication Skills (3) i, ii. Instruction in reading and writing open to any student, but mandatory as first course for students scoring below 14 on ACT English test. Does not fulfill the English composition requirement for baccalaureate degree.

ENG 104 Composition and Rhetoric I (3) i, ii, iii. Instruction and practice in reading and writing; emphasizes expository prose.

ENG 108 Composition and Rhetoric II (3) i, ii, iii. Instruction in reading various literary genres and continued practice in writing. Prerequisite: ENG 104.

ENG 112 Honors Composition and Rhetoric (3) i. An enriched course open to students with ACT English scores above 23. This course fulfills the English composition requirement for basic skills in general studies for four-year degree programs.

ENG 200 College Learning Skills Workshop (3) i, ii. An intensive twelve-week skills course in reading, writing, and studying.

ENG 201 College Reading and Studying Skills (2) ii. An intensive eight-week skills course in reading and studying.

ENG 224 Advanced Composition and Literature (3) i. Required for English majors and minors. Offers systematic instruction in writing about literature. Prerequisite: ENG 108 or 112.

ENG 232 Language Awareness (3) i. Emphasis on the important principles of language with a focus on the vocabulary, manipulation of words in context, analysis of grammatical systems, the patterns of usage and the dialects of American English. Required of English majors, minor in English, education emphasis. Prerequisite: ENG 104 or consent of instructor.

ENG 316 Internship in English (2-6) i, ii, iii. Practical application of skills in reading, writing, and analytical thinking at a business concern or agency; correlates academic preparation with professionally supervised work experience (thirty clock hours of work for each credit). May be repeated for a total of 12 credits. Prerequisite: Junior or senior standing and consent of faculty coordinator and department chairperson.

ENG 322 Organizational Writing (3). A workshop course for business and professional people and English majors and journalism minors. Emphasis on audience analysis and designing, composing, editing, and producing public relations and communications pieces. Required of BA English majors, writing and communications emphasis. Prerequisite: ENG 108 or consent of instructor.

ENG 332 History of the English Language (3) ii (odd-numbered years). Growth and structure of the English language. Prerequisite: ENG 232 or consent of instructor.

ENG 334 Structure of English (3) ii. Traditional analysis of English syntax and introduction to the basic concepts of generative-transformational grammar. Prerequisite: ENG 232 or EED 320, or consent of instructor.

ENG 338 Creative Writing (3) i. Intensive practice in writing poetry, fiction, or drama, in accordance with the interests of the student. May be repeated for a total of 6 credits. Prerequisite: ENG 108 or 112.

English Education Courses

English education courses may not be used to fulfill any requirement for the Bachelor of Arts degree with a major in English.

ENG 300 Literature for Children (3) i, ii, iii. A study of literature for children designed to increase appreciation of children's books through literary evaluation. Students will read and evaluate picture books, junior novels and poetry. Prerequisite: ENG 108 or 112, or consent of instructor.

ENG 400 Literature for Adolescents (3) ii. Trends, censorship and the history of young adult literature will be considered as students read and evaluate classic and contemporary literature suitable for junior and senior high school students. Prerequisite: Junior standing or consent of instructor.

ENG 465 English Teaching: Methods and Materials (3) i. Techniques, materials, and resources used in the English curriculum in the secondary schools; instruction in the teaching of writing. Prerequisite: Junior standing.

Literature Courses

ENG 210 Approaches to Literature (3) i, ii, iii. A general studies course emphasizing ways of reading poetry, fiction and drama. Various thematic approaches may be offered.

ENG 248 Approaches to Film Literature (3) ii. Study of themes, ideas, and techniques in film.

ENG 310 British Literature to 1798 (3) i. Survey of British literature from Anglo-Saxon times to the Restoration and eighteenth century periods. Prerequisite: ENG 108 or 112, or consent of instructor.

ENG 312 British Literature since 1798 (3) ii. A continuation of ENG 310. A survey from the Romantics and the Victorians to contemporary writers. Prerequisite: ENG 108 or 112, or consent of instructor.

ENG 360 American Literature to 1865 (3) i. Survey of American literature from colonial beginnings to the Civil War; includes literature of ethnic groups. Prerequisite: ENG 108 or 112, or consent of instructor.

ENG 362 American Literature since 1865 (3) ii. Continuation of ENG 360. Survey from the Civil War to the present day; includes literature of ethnic groups. Prerequisite: ENG 108 or 112, or consent of instructor.

ENG 368 Shakespeare (3). A study of selected works. Prerequisite: ENG 108 or 112, or consent of instructor. Same as THR 368.

ENG 370 Medieval Literature (3). The literature and culture of the Middle Ages; special emphasis on Chaucer. Prerequisite: ENG 108 or 112, or consent of instructor.

ENG 372 Seventeenth Century British Literature (3). The literature and culture of the Jacobean and Restoration periods; special emphasis on Milton. Prerequisite: ENG 108 or 112, or consent of instructor.

ENG 374 Eighteenth Century British Literature (3). The major literary movements and writers of the eighteenth century. Prerequisite: ENG 108 or 112, or consent of instructor.

ENG 380 Romantic Poetry and Prose (3). The major works of the Romantic period. Prerequisite: ENG 108 or 112, or consent of instructor.

ENG 382 Victorian Literature (3). The major works of the Victorian period. Prerequisite: ENG 108 or 112, or consent of instructor.

ENG 390 Modern European Literature (3). Selected works in translation of modern European writers. Prerequisite: ENG 108 or 112, or consent of instructor.

ENG 420 American Short Story (3) ii (even-numbered years). The American short story from Washington Irving to the present; includes literature of ethnic groups. Prerequisite: ENG 108 or 112, or consent of instructor.

ENG 422 American Novel (3) ii (odd-numbered years). Representative works of the nineteenth and twentieth centuries; includes literature of ethnic groups. Prerequisite: ENG 108 or 112, or consent of instructor.

ENG 426 Modern American and British Poetry (3). Representative poetry of the twentieth century; includes literature of ethnic groups. Prerequisite: ENG 108 or 112, or consent of instructor.

ENG 450 Independent Study in English (1-5). Investigation of selected problems or topics on an individual conference basis. Prerequisite: Completion of major-minor application form in English, minimum 2.5 GPA in major field of study, and consent of department chairperson.

ENG 468 British Novel: Eighteenth Century (3). The development of the British novel in the eighteenth century. Prerequisite: ENG 108 or 112, or consent of instructor.

ENG 470 British Novel: Nineteenth and Twentieth Centuries (3). Representative novels of the nineteenth and twentieth centuries. Prerequisite: ENG 108 or 112, or consent of instructor.

ENG 478 Modern Drama (3). Drama from Ibsen to the present. Prerequisite: ENG 108 or 112, or consent of instructor. Same as THR 478.

ENG 484 Special Topics in English (3) ii. Study of selected topics or problems in English. Prerequisite: Junior or senior standing and consent of instructor and department chairperson.

ENG 488 Senior Seminar in English (3) i. Discussion of the relationships and significance of major texts and periods covered in the degree programs in English. Prerequisite: Consent of department chairperson.

Journalism Courses

JOU 102 Principles of Journalism and Mass Media (3) i. Analyzes the communications process: the role of newspapers, magazines, radio, and television, and their impact on contemporary society.

JOU 104 Photography Fundamentals (3) i (odd-numbered years). Basic techniques of picture taking, film developing, and printing. Students are required to provide their own camera equipment, film, and printing paper.

JOU 202 Basic News Reporting (3) i. Introduction to journalistic practices; gathering information, taking notes, interviewing, writing; basic journalism style and story structure; practice in copy editing.

JOU 210 Journalism Laboratory: Newspaper Production (2) i, ii. Supervised experience in field reporting and techniques used in producing a newspaper. Students work on the campus newspaper. May be repeated for a total of 8 credits. Prerequisite: Credit or concurrent enrollment in JOU 202, or consent of instructor.

JOU 212 Journalism Laboratory: Yearbook/Magazine Production (2) i, ii. Supervised experience in field reporting and techniques used in producing the campus yearbook. May be repeated for a total of 8 credits. Prerequisite: Credit or concurrent enrollment in JOU 202, or consent of instructor.

JOU 302 Advanced Reporting: Opinion Writing (3) ii. Writing editorials and expanded features; interpretive and investigative reporting. Prerequisite: JOU 202 or consent of instructor.

JOU 304 Photojournalism (3) ii (even-numbered years). Pictures as reportorial or interpretive statements of human events; photoscripts, outlines, photo essays. Prerequisite: JOU 102 and 202, or consent of instructor.

JOU 306 Newspaper and Magazine Production Management (3) ii (odd-numbered years). Principles of publication management: determining editorial objectives, identifying publics, defining content and physical format; personnel and production management; packaging the news for accuracy, clarity, and effective communication. Prerequisite: JOU 202, 210 or 212, or consent of instructor.

JOU 310 Journalism Laboratory: Newspaper Production Management (2) i, ii. Supervised experience in managerial positions on the campus newspaper; application of the principles of professional journalism. May be repeated for a total of 8 credits. Prerequisite: JOU 210; credit or concurrent enrollment in JOU 306; or consent of instructor.

JOU 312 Journalism Laboratory: Yearbook/Magazine Production Management (2) i, ii. Supervised experience in managerial positions on the campus yearbook; applications of principles of professional journalism. May be repeated for a total of 8 credits. Prerequisite: JOU 212; credit or concurrent enrollment in JOU 306; or consent of instructor.

JOU 314 Special Topics in Journalism (3) i (even-numbered years). Advanced course in journalism; topics vary from semester to semester. May be repeated for credit. Prerequisite: Consent of instructor.

JOU 316 Internship in Journalism (2-6) i, ii, iii. Practical application of journalism skills in a professional setting; correlates academic preparation with supervision in a work experience (thirty clock hours of work for each credit). May be repeated for a total of 12 credits. Prerequisite: Junior or senior standing and consent of faculty coordinator and department chairperson.

JOU 322 Organizational Writing (3). A workshop course for business and professional people and English majors and journalism minors. Emphasis on audience analysis, and designing, composing, editing, and producing public relations and communications pieces. Required of BA English majors, writing and communications emphases. Prerequisite: ENG 108 or consent of instructor.

Modern Languages Courses

A student with extensive background in a language is encouraged to attempt credit by examination. Two years of high school study in a language should provide background for testing out of the first-semester course, and three to four years of study should enable the student to test out of the second course.

French Courses

FRE 102 Elementary French I (4) i. Basic structural patterns of the language and essential grammar; development of active proficiencies and comprehension of grammatical concepts. Three hours lecture, two hours lab.

FRE 112 Elementary French II (4) ii. Continuation of FRE 102. Three hours lecture, two hours lab. Prerequisite: FRE 102 or equivalent.

FRE 202 Intermediate French (4) i. Continuation of FRE 112. Completion of essential grammar. Three hours lecture, two hours lab. Prerequisite: FRE 112 or consent of instructor.

FRE 212 French Conversation and Composition (4) ii. Refinement of writing and speaking skills through review of structural patterns and mastery of idiomatic usages; study of vocabulary distinctions. Three hours lecture, two hours lab. Prerequisite: FRE 202 or consent of instructor.

FRE 300 Topics in French (4) i, ii. Advanced course in French literature, language, or culture. Topics will vary from semester to semester. May be repeated for credit (with consent of instructor). Three hours lecture and two hours lab, or four hours lecture. Prerequisite: FRE 212 or consent of instructor.

German Courses

GER 102 Elementary German I (4) i. Basic structural patterns of the language and essential grammar; development of active proficiencies and comprehension of grammatical concepts. Three hours lecture, two hours lab.

GER 112 Elementary German II (4) ii. Continuation of GER 102. Three hours lecture, two hours lab. Prerequisite: GER 102 or equivalent.

GER 202 Intermediate German (4) i. Continuation of GER 112. Completion of essential grammar. Three hours lecture, two hours lab. Prerequisite: GER 112 or consent of instructor.

GER 212 German Conversation and Composition (4) ii. Use of short literary works as a basis for conversation and short compositions. Three hours lecture, two hours lab. Prerequisite: GER 202 or consent of instructor.

GER 300 Topics in German (4) i, ii. Advanced course in German literature, language, or culture. Topics will vary from semester to semester. May be repeated for credit (with consent of instructor). Three hours lecture and two hours lab, or four hours lecture. Prerequisite: GER 212 or consent of instructor.

Spanish Courses

SPA 102 Elementary Spanish I (4) i. Basic structural patterns of the language and essential grammar; development of active proficiencies and comprehension of grammatical concepts. Three hours lecture, two hours lab.

SPA 112 Elementary Spanish II (4) ii. Continuation of SPA 102. Three hours lecture, two hours lab. Prerequisite: SPA 102 or equivalent.

SPA 202 Intermediate Spanish (4) i. Continuation of SPA 112; completion of essential grammar. Three hours lecture, two hours lab. Prerequisite: SPA 112 or consent of instructor.

SPA 212 Spanish Conversation and Composition (4) ii. Conversations and written compositions based on textual materials as well as contemporary topics. Three hours lecture, two hours lab. Prerequisite: SPA 202 or consent of instructor.

SPA 248 Preparatory Course for Interim Program in Mexico (2). An introduction to Mexican history and contemporary Mexican society. Lecture and discussion are in Spanish; readings are in English. A special fee is assessed for this class. Deadline for application is April 15. Prerequisite: Credit or concurrent registration in SPA 112, two years of high school Spanish, or consent of instructor.

SPA 250 Interim Program in Mexico: Oral Spanish (4). An intensive three-week intermediate level skills course in spoken Spanish given in Cuernavaca, Mexico. Class meets for four hours daily. A special fee is assessed for this class. Deadline for application is April 15. Prerequisite: SPA 112, two years of high school Spanish, or consent of instructor.

SPA 252 Interim Program in Mexico: Independent Readings in Spanish (2). A three-week intermediate level course given in Cuernavaca, Mexico, on the literature of the Spanish-speaking world. A special fee is assessed for this class. Deadline for application is April 15. Prerequisite: SPA 112, two years of high school Spanish, or consent of instructor.

SPA 300 Topics in Spanish (4) i, ii. Advanced course in Spanish literature, language, or culture. Topics will vary from semester to semester. May be repeated for credit (with consent of instructor). Three hours lecture and two hours lab, or four hours lecture. Prerequisite: SPA 212 or consent of instructor.

SPA 348 Preparatory Course for Interim Program in Mexico (2). An introduction to Mexican history and contemporary Mexican society. Lecture, discussion and readings are in Spanish. A special fee is assessed for this class. Deadline for application is April 15. Prerequisite: Credit or concurrent registration in SPA 212, four years of high school Spanish, or consent of instructor.

SPA 350 Interim Program in Mexico: Oral Spanish (4). An intensive three-week advanced level skills course in spoken Spanish given in Cuernavaca, Mexico. Class meets for four hours daily. A special fee is assessed for this class. Deadline for application is April 15. Prerequisite: SPA 212, 250, four years of high school Spanish, or consent of instructor.

SPA 352 Interim Program in Mexico: Independent Readings in Spanish (2). A three-week advanced level course given in Cuernavaca, Mexico, on the literature of the Spanish-speaking world. A special fee is assessed for this class. Deadline for application is April 15. Prerequisite: SPA 212, 252, four years of high school Spanish, or consent of instructor.

Department of Mathematical Sciences

Dr. D. Mahaffy, *chairperson*

The Department of Mathematical Sciences contributes to the liberal education of all students and, in addition, provides specialized programs in computer science, data processing, mathematics, and physics for those students who desire a more thorough preparation for jobs in business, government, industry, and educational institutions.

Bachelor of Arts Degree Requirements

The B.A. requires 16 credits in a single foreign language.

Major in Mathematics

The major in mathematics requires the completion of the following program for a total of 48 credits: MAT 107, 108, 207, 209, 305, 312, 407, 416, plus an additional 6 credits in mathematics courses numbered above 300; PHY 210, 211, 212.

Bachelor of Science Degree Requirements

Major in Computer Science

The major in computer science requires the completion of the following program for a total of 54 credits: CSC 182, 188, 245, 284, 386; plus 12 credits in computer science courses (excluding CSC 250) of which 9 credits must be numbered above 300; MAT 107, 108, 207, 209, 305, 332, 417.

Major in Data Processing

The major in data processing requires the completion of the following program for a total of 54 credits: CSC 182, 188, 245, 284, 345, 386; Plus 12 credits of computer science electives (excluding CSC 250); MAT 201 or MGT 210; ACC 230, ACC 231, ECO 260, MKT 270, MGT 312, plus 6 credits of approved business and economics electives.

Major in Mathematics

The major in mathematics requires the completion of the following program for a total of 54 credits: MAT 107, 108, 207, 209, 305, 312, 407, 416, plus an additional 6 credits in mathematics courses numbered above 300; PHY 210, 211, 212; CSC 188, plus an additional 3 credits in computer science courses (excluding CSC 182).

Bachelor of Science in Education Degree Requirements

Major in Mathematics

The major in mathematics requires the completion of the following program for a total of 38 credits: MAT 107, 108, 207, 209, 305, 312, 315, 407, 416, 465, and any 3-credit computer science course.

Minors

Minor in Computer Science

The minor in computer science requires the completion of the following program for a total of 22 credits: MAT 107, 108; CSC 188, 284; plus 6 credits of computer science electives (excluding CSC 182).

Minor in Data Processing

The minor in data processing requires the completion of the following program for a total of 21 credits: CSC 182, 240, 245, and 345; ACC 230; plus 6 credits of computer science electives.

Minor in Mathematics

The minor in mathematics requires the completion of the following program for a total of 21 credits: MAT 107 and 108, plus elective courses in mathematics numbered 200 or higher. Students seeking a minor in mathematics for teacher certification must contact the department chairperson for information regarding specific course requirements.

Minor in Physics

The minor in physics requires the completion of the following program for a total of 20 credits: PHY 210, 211, 212, 310, and 411.

Computer Science Courses

CSC 182 Introduction to Data Processing (3) i, ii, iii. Overview of data processing and computer concepts as an area of general knowledge for the informed individual; includes programming microcomputers in the BASIC language. Prerequisite: One year of high school algebra or MAT 090 or higher.

CSC 188 FORTRAN Programming (3) i, ii. Introduction to the structure and facilities of FORTRAN IV (FORmula TRANslation) programming. Prerequisite: CSC 182 and MAT 105, or equivalent, or consent of instructor.

CSC 240 RPG Programming (3) i, ii. Introduction to the structure and facilities of RPG II (Report Program Generator) programming. Prerequisite: CSC 182.

CSC 245 COBOL Programming (3) i, ii. Introduction to the structure and facilities of COBOL (COmmon Business Oriented Language) programming using structured programming techniques. Prerequisite: CSC 182.

CSC 250 Computer Operations Practicum (3) ii. Participation in computer operations in a local data processing installation. This course will not be accepted as a computer science elective for degree programs. Application for placement must be made at least nine weeks before registration for this course. Prerequisite: Sophomore standing and completion of at least one programming language course.

CSC 255 PL/I Programming (3) i. Introduction to the structure and facilities of PL/I (Programming Language I) programming. Prerequisite: CSC 188 or 245.

CSC 284 Symbolic Assembler Language I(3) i, ii. Assembly language-level programming: symbolic machine instructions, dumps, assembly language instructions, subprogram linkage, and vendor-supplied subprograms. Prerequisite: CSC 188.

CSC 345 Advanced COBOL Applications (3) i, ii. Application programming using tables, error-routines, tape processing, sequential and indexed-sequential disk processing, subroutines, and sort and report writer features. Prerequisite: CSC 245 with grade of C or better.

CSC 370 Data Structures (3) i. Organization of data files, hierarchies of storage, sorting, searching, crossreferencing, retrieval of information from files. Prerequisite: CSC 188 with grade of C or better.

CSC 384 Symbolic Assembler Languages II (3) ii. System macro instructions, special-purpose instructions, macro definitions, conditional assembly, and interrupt structure. Prerequisite: CSC 284.

CSC 386 Operating Systems and Computer Organization (3) i, ii. Introduction to the organization and architecture of computer systems, the major concept area of operating systems principles, and the interrelationships between the operating system and the architecture of a computer system. Prerequisite: CSC 284.

CSC 388 Operations Research (3) i. Introduction to operations research techniques; linear programming, integer programming, and branch and bound techniques, scheduling problems, and inventory control. Prerequisite: CSC 188 and one course selected from MAT 201 or MGT 210 or credit or concurrent enrollment in MAT 332.

CSC 395 Data Base Processing (3) ii. An introduction to database design, fundamentals, developmental processes, I/O and files, organization, data structures, and logical design, with an emphasis on the relational model. Prerequisite: CSC 370.

CSC 418 Simulation and Modeling (3) ii (odd-numbered years). Continuation of CSC 388. Introduction to simulation techniques; topics include design of stochastic, deterministic, time-stepped and event-sequenced simulations, and selected topics in artificial intelligence. Prerequisite: CSC 388, MAT 332.

CSC 428 Computer Graphics (3) ii (even-numbered years). Techniques for picture transformation, curve and surface approximation; study and implementation of graphical languages and data structure; organization of graphical systems; use of the microcomputer and the Cal-comp plotter as tools for displaying graphical data. Prerequisite: CSC 188 and MAT 107.

CSC 450 Application Projects (3) i, ii. The student will complete an independent project under the supervision of one of the members of the computer science faculty. Prerequisite: Junior or senior standing and project approval before course registration.

CSC 488 Data Processing Management (3) ii. Basic management principles as applied to data processing; assumes no prior management training. Prerequisite: Junior or senior standing and one programming language course.

Mathematics Courses

MAT 090 Beginning Algebra (3) i, ii, iii. Reviews basic topics in arithmetic and algebra. Arithmetic topics include operations on the natural numbers, integers, fractions and decimals. Algebra topics include addition, subtraction, multiplication, division and factoring of elementary expressions of one variable, polynomials, rational expressions, the solutions and graphing of simple linear equations and applications to geometry. (Not open to the student with credit in MAT 101 or higher; may not be taken concurrently with any other mathematics course; hours do not count toward graduation requirements.)

MAT 095 Intermediate Algebra (3) i, ii, iii. Review of elementary algebra including the algebra of polynomials, linear equations, quadratic equations, systems of three equations, linear inequalities, integer and rational exponents, factoring, and graphs of lines and conic sections. Prerequisite: One year of high school algebra or a grade of C or better in MAT 090 or equivalent. (Not open to the student with credit in MAT 105 or higher; may not be taken concurrently with any other mathematics course; hours do not count toward graduation requirements.)

MAT 101 Fundamental Concepts of Mathematics (3) i, ii, iii. Selected topics include symbolic logic, probability and statistics, metric measurement, graphic interpretation, and computer science. Prerequisite: One year of high school algebra with a Math ACT score of 14 or above; or a grade of C or better in MAT 090; or equivalent. (Not open to the student with credit in MAT 107.)

MAT 105 College Algebra (3) i, ii, iii. Linear, quadratic, and miscellaneous equations and inequalities; relations and functions including polynomial, exponential, and logarithmic functions; graphing; systems of equations and inequalities; matrices and determinants; sequences and series. Prerequisite: Two years of high school algebra or a grade of C or better in MAT 095 or equivalent. (Not open to the student with credit in MAT 107.)

MAT 106 Trigonometry (2) i, ii, iii. Trigonometric functions, trigonometric identities, trigonometric equations, logarithms, solution of triangles, inverse trigonometric functions. Prerequisite: MAT 095 or equivalent. (Not open to the student with credit in MAT 107.)

MAT 107 Calculus with Analytic Geometry I (5) i, ii, iii. Plane analytic geometry, differential calculus, and integral calculus. Prerequisite: Grade of C or better in MAT 105 and 106 or equivalent.

MAT 108 Calculus with Analytic Geometry II (5) i, ii. Continuation of MAT 107. Includes selected topics from analytic geometry and calculus. Prerequisite: Grade of C or better in MAT 107 or equivalent.

MAT 201 Elementary Statistics (3) i, ii, iii. Basic course for students in natural sciences, behavioral sciences, and social sciences; tabulation of data, graphic representation, measures of central tendency and dispersion, probability, types of distributions, sampling, hypothesis testing, elementary aspects of correlation. Prerequisite: MAT 095 or equivalent.

MAT 204 Applied Calculus I (3) i. An applied course in techniques of differentiation and integration; applications primarily from the technological fields; analytic geometry, functions, differential and integral calculus. Prerequisite: MAT 105; CSC 182 or credit or concurrent enrollment in CSC 188; or consent of instructor. (Not open to the student with credit in MAT 107.)

MAT 205 Applied Calculus II (3) ii. Differentiation and integration of trigonometric functions, partial derivatives and double integrals, Taylor Series, first- and second-order differential equations; applications primarily from the technological fields. Prerequisite: MAT 106 and 204 or equivalent. (Not open to the student with credit in MAT 108.)

MAT 207 Mathematical Foundations (3) ii. Analysis of mathematical reasoning, deductive set theory, binary relations and functions, combinatorics, infinite sets, and elementary algebraic structures. Prerequisite: Credit or concurrent enrollment in MAT 108, or equivalent.

MAT 209 Calculus with Analytic Geometry III (5) i, ii. Continuation of MAT 108. Selected topics from analytic geometry and calculus. Prerequisite: Grade of C or better in MAT 108 or equivalent.

MAT 305 Linear Algebra (3) i. Vector spaces, linear transformations, matrix operations, determinants, matrix inversion, linear systems, eigenvalues, canonical forms. Prerequisite: MAT 207 or consent of instructor.

MAT 312 Differential Equations (3) ii. Common types of ordinary differential equations; differential operators, Laplace transforms; systems of differential equations; partial differential equations; Fourier series; applications. Prerequisite: MAT 209 and 305 or consent of instructor.

MAT 315 Topics in Geometry (3) i (odd-numbered years). Synthetic projective geometry; basic symbolic logic; mathematical systems and finite geometries; algebraic geometry; non-Euclidean geometry. Prerequisite: Credit or concurrent enrollment in MAT 305.

MAT 332 Mathematical Statistics (3) i. The theory of mathematical statistics; probability, distribution theory, and point estimation. Prerequisite: MAT 207 or equivalent.

MAT 350 Mathematics for Elementary Teachers (5) i, ii. Structure, meanings, relationships, and logical reasoning for elementary mathematics; emphasizes the structure of mathematics taught in grades K-6. Prerequisite: MAT 101 or equivalent. (Not applicable to the major or minor in mathematics.)

MAT 351 Mathematics Methods in the Elementary School (2) i, ii. Methodologies, strategies, materials, and curriculum development in elementary school mathematics. Must be taken concurrently with MAT 350. Prerequisite: MAT 101 or equivalent. (Not applicable to the major or minor in mathematics.)

MAT 407 Advanced Calculus (3) i. Elementary topological aspects of the real numbers, calculus of several variables, vector calculus, infinite series, Fourier series, and orthogonal functions. Prerequisite: MAT 312 or equivalent.

MAT 416 Abstract Algebra (3) ii. Groups, rings, fields, and vector spaces; definitions and fundamental theorems; homomorphisms and isomorphisms; polynomials and field extensions. Prerequisite: MAT 305 or equivalent.

MAT 417 Numerical Analysis (3) ii. The solution of algebraic and transcendental equations; finite differences; interpolation, numerical differentiation, and integration; numerical solutions of ordinary differential equations. Prerequisite: MAT 209, 305, and CSC 188 or equivalent.

MAT 450 Independent Study in Mathematics (1-5). Investigates selected problems or topics on an individual conference basis. Prerequisite: Completion of the major-minor application form, minimum 2.5 GPA in the major field of study, and consent of department chairperson.

MAT 465 Mathematics Teaching: Methods and Materials (2) i (even-numbered years). Techniques, materials, and resources used in the mathematics curriculum in secondary schools. Prerequisite: SED 303 or equivalent; candidate for Bachelor of Science in Education degree.

MAT 470 Seminar in Mathematics (3) ii (odd-numbered years). Selected topics in mathematics. Prerequisite: Consent of department chairperson (may be repeated for credit.)

Physics Courses

PHY 101 Concepts and Principles of Physics (4) i, ii, iii. Comprehensive treatment of the concepts and laws of physics using a nonmathematical approach. Three hours lecture-demonstration, two hours lab.

PHY 104 Introduction to Astronomy (3) ii. Basic course in astronomy, mostly descriptive in nature; solar system, stellar astronomy, structure of galaxy and universe. Three hours lecture plus 2 hours lab. Prerequisite: A basic knowledge of high school algebra and plane geometry.

PHY 110 College Physics I (5) i, ii. Classical treatment of mechanics, waves, energy, heat, electricity, magnetism, and optics. Four hours lecture, three hours lab. Prerequisite: MAT 105 or consent of instructor.

PHY 111 College Physics II (3) ii. Relativity, atomic physics, and nuclear physics. Two hours lecture, three hours lab. Prerequisite: PHY 110 or consent of instructor.

PHY 210 University Physics I (5) i. Calculus-level mechanics, sound, and thermodynamics. Four hours lecture, three hours lab. Prerequisite: MAT 107.

PHY 211 University Physics II (4) ii. Calculus-level electricity, magnetism, waves, and optics. Three hours lecture, three hours lab. Prerequisite: Credit or concurrent enrollment in MAT 108; PHY 210.

PHY 212 University Physics III (3) i. Calculus-level modern physics. Three hours lecture. Prerequisite: PHY 211.

PHY 310 Modern Physics (3) ii. Selected topics dealing with the transition from classical physics to modern quantum physics. Three hours lecture. Prerequisite: PHY 212 and MAT 312 or consent of instructor.

PHY 411 Quantum Mechanics (5) i. Introduction to formal quantum mechanics; Schrödinger equation and introductory Heisenberg formulation. Laboratory in modern physics techniques. Three hours lecture, six hours lab. Prerequisite: PHY 310.

Department of Music

F. M. Gilmour, *chairperson*

The Department of Music provides a curriculum for the training of musicians and music educators. It is primarily concerned with improving the skills and disciplining the talents of music majors. The department also offers courses and activities for all college students to enhance their appreciation and understanding of music. Students are encouraged to broaden their contact with music through attendance at the many cultural programs in St. Joseph and area concert halls and through participation in programs by student musicians.

The Department of Music is an Associate Member of the National Association of Schools of Music.

Bachelor of Arts Degree Requirements

The B.A. requires 16 credits in a single foreign language.

Major in Music

Courses in music must total 52 credits. The following specific courses are required: MUS 101, 105, 107, 205, 206, 207, 310, 311, 405, 490 or 491, plus 9 credits in one "applied music-major instrument" category, 4 credits in elective ensembles, and 6 credits from MUS 312, 313, 314, 315, 316, 317, 318, 330, 331, 332, 333, 334, 335.

Bachelor of Science In Education Degree

The following programs lead to K-12 teaching certification in Missouri.

Major in Music, Vocal Emphasis

Courses in music must total 71 credits. The following courses are required: MUS 100 (seven semesters), 101, 105, 107, 130, 131, 205, 206, 207, 208, 305, 310, 311, 320, 405, 420, 490 or 491, plus 10-12 credits in restricted electives in the applied concentration.

Applied voice concentration: Restricted electives are MUS 334, 2 credits; applied voice-major instrument, 8 credits (seven semesters).

Applied piano concentration: Restricted electives are MUS 331, 2 credits; applied voice-major instrument, 2 credits (two semester); applied piano-major instrument, 8 credits (seven semesters).

Major in Music, Instrumental Emphasis

Courses in music must total 71 credits. The following courses are required: MUS 100 (seven semesters), 101, 105, 107, 132, 133, 134, 135, 205, 206, 207, 230, 231, 232, 233, 305, 310, 311, 3209, 405, 421, 490 or 491, plus 8 credits (seven semesters) in one "applied music-major instrument" category.

Degree Candidates in Music

All first-semester music students are expected to audition on their major instrument before registration for classes at Missouri Western State College.

Candidates for the Bachelor of Science in Education degree must participate in one major ensemble each semester with the exception of the student teaching semester.

Candidates for the Bachelor of Arts degree must complete the 200-level "applied music-major instrument" requirements for graduation. Candidates for the Bachelor of Science in Education degree must complete 4 credits in 300-level "applied music-major instrument" requirements for graduation.

Candidates for the Bachelor of Science in Education degree may receive an emphasis in elementary music education by electing MUS 321 and 322 (total of 4 credits). This emphasis is for those students desiring to teach at the elementary school level.

All degree candidates in music may elect a solo performance emphasis program in their major applied area with Department of Music permission.

Candidates for the Bachelor of Science in Education degree with a vocal emphasis may achieve instrumental certification with the addition of instrumental courses. The following courses are suggested: MUS 132, 133, 134, 135, 230, 231, 232, 233, 421, and two semesters selected from MUS 145, 146, 344, 347, 348.

Candidates for the Bachelor of Science in Education degree with an instrumental emphasis may achieve vocal certification with the addition of vocal music courses. The following courses are suggested: MUS 130, 131, 420, 2 credits in applied voice, and two semesters selected from MUS 140, 141, 338.

Music Courses

MUS 100 Recital (1) i, ii. Attendance at department-sponsored or -approved concerts. May be repeated for credit. Required for all music majors and students enrolled in applied music.

MUS 101 Perspectives in Music (3) i, ii, iii. Music materials, forms, historical-social development of composers and compositions. Various themes may be pursued; however, this course may not be repeated for credit.

MUS 105 Basic Musicianship I (5) i. Materials of music through seventh chords and metric subdivision; includes music reading/aural recognition.

MUS 106 Basic Keyboard Skills I (2) i. Keyboard orientation; intervallic reading; I, V chord structures and harmonization. No piano background required.

MUS 107 Basic Musicianship II (5) ii. Continuation of MUS 105. Harmonization, modulation, formal analysis, composition; includes music reading/aural recognition. Prerequisite: MUS 105.

MUS 108 Basic Keyboard Skills II (2) ii. Primary chord structures and harmonization, simple accompaniment patterns, reading skills, scale structures. Prerequisite: MUS 106 or consent of instructor.

MUS 205 Harmony and Form I (5) i. Continuation of MUS 107. An historical approach to compositional techniques and forms through analysis and original composition; includes music reading/aural recognition. Prerequisite: MUS 107.

MUS 206 Keyboard Proficiency I (2) i. Keyboard harmony, harmonization of folk melodies, sight-reading, scale structure, transposition, simple accompaniment, elementary repertoire; completion of proficiency examination for instrumental majors. Prerequisite: MUS 108 or consent of instructor.

MUS 207 Harmony and Form II (5) ii. Continuation of MUS 205. Music of late nineteenth century to the present day through analysis and original composition; includes music reading/aural recognition. Prerequisite: MUS 205.

MUS 208 Keyboard Proficiency II (2) ii. Advanced harmonic progressions, intermediate-level accompaniments, transposition of simple accompaniment, open-score reading, intermediate repertoire, scale and arpeggio techniques; completion of proficiency and examination for vocal and piano majors. Prerequisite: MUS 206 or consent of instructor.

MUS 220 Music for the Elementary Classroom Teacher (3) ii. Basic music for the elementary education major incorporating music appreciation and use of music in the teaching of basic skills. Prerequisite: EED 202, 203.

MUS 240 Chamber Music Performance: Brass (1-2) i, ii. Study through performance in musical literature and performance practices as they relate to chamber music with brass instruments. May be repeated for credit. Prerequisite: Consent of instructor.

MUS 241 Chamber Music Performance: Keyboard (1-2) i, ii. Study through performance in musical literature and performance practices as they relate to chamber music with keyboard instruments. May be repeated for credit. Prerequisite: Consent of instructor.

MUS 242 Chamber Music Performance: Percussion (1-2) i, ii. Study through performance in musical literature and performance practices as they relate to chamber music with percussion instruments. May be repeated for credit. Prerequisite: Consent of instructor.

MUS 243 Chamber Music Performance: Strings (1-2) i, ii. Study through performance in musical literature and performance practices as they relate to chamber music with string instruments. May be repeated for credit. Prerequisite: Consent of instructor.

MUS 244 Chamber Music Performance: Voice (1-2) i, ii. Study through performance in musical literature and performance practices as they relate to chamber music with voice. May be repeated for credit. Prerequisite: Consent of instructor.

MUS 245 Chamber Music Performance: Woodwinds (1-2) i, ii. Study through performance in musical literature and performance practices as they relate to chamber music with woodwind instruments. May be repeated for credit. Prerequisite: Consent of instructor.

MUS 305 Conducting (2) i. Basic conducting techniques: patters, cueing, left hand independence; conducting legato, staccato, and marcato styles. Prerequisite: MUS 207.

MUS 310 History of Music: Primitive to Baroque (3) i. Musical styles and techniques, from primitive music to Baroque. Prerequisite: MUS 101, 207.

MUS 311 History of Music: Classical to Modern (3) ii. Musical styles and techniques, from classical to modern. Prerequisite: MUS 101, 207.

MUS 312 Topics in Music Literature: Chamber (1-2) i, ii. Study through research in music literature and performance practices as they relate to chamber music. May be repeated for credit. Prerequisite: Consent of instructor.

MUS 313 Topics in Music Literature: Choral (1-2) i, ii. Study through research in music literature and performance practices as they relate to choral music. May be repeated for credit. Prerequisite: Consent of instructor.

MUS 314 Topics in Music Literature: Piano (1-2) i, ii. Study through research in music literature and performance practices as they relate to piano music. May be repeated for credit. Prerequisite: Consent of instructor.

MUS 315 Topics in Music Literature: Organ (1-2) i, ii. Study through research in music literature and performance practices as they relate to organ music. May be repeated for credit. Prerequisite: Consent of instructor.

MUS 316 Topics in Music Literature: Percussion (1-2) i, ii. Study through research in music literature and performance practices as they relate to percussion music. May be repeated for credit. Prerequisite: Consent of instructor.

MUS 317 Topics in Music Literature: Solo Instrument (1-2) i, ii. Study through research in music literature and performance practices as they relate to solo instrument music. May be repeated for credit. Prerequisite: Consent of instructor.

MUS 318 Topics in Music Literature: Solo Voice (1-2) i, ii. Study through research in music literature and performance practices as they relate to solo vocal music. May be repeated for credit. Prerequisite: Consent of instructor.

MUS 320 Elementary Music Methods and Materials (3) i. Overview of methods and materials for teaching of music in grades K-6. For students majoring in music education. Prerequisite: MUS 105 or EED 202, 203 and ability to read music.

MUS 321 Orff, Kodály, and Laben (2) ii (odd-numbered years). Introduction to the educational processes involved in teaching music K-8, using the contemporary methods of Orff, Kodály, and Laben. Prerequisite: MUS 220 or 320.

MUS 322 General Music Activities (2) ii (even-numbered years). Developing and sequencing music skills and concepts in grades K-12 through increasing levels of cognitive abilities. Prerequisite: MUS 220 or 320.

MUS 325 Marching Band Techniques (1) i (odd-numbered years). Materials and ideas in marching band techniques. Prerequisite: MUS 145.

MUS 326 Instrument Care and Repair (1) ii (even-numbered years). Techniques and experience in the repair of band and orchestra instruments; emphasizes practical and economical use of materials, skill, and time. Prerequisite: Two of the following: MUS 132, 134, 230, 232.

MUS 405 Arranging (2) ii. Various combinations of instruments and voices; includes a major project in the student's area of interest. Prerequisite: MUS 207.

MUS 406 Composition (1-2) i, ii. Private lessons in composition. Half-hour weekly lessons for each credit. The special fee for applied music is assessed for this course. May be repeated for credit. Prerequisite: Consent of instructor.

MUS 420 Secondary Choral Methods and Materials (3) ii. Problems and techniques of teaching choral music in junior and senior high schools; study of choral literature; performance practices; choral conducting with laboratory experiences. Prerequisite: MUS 305.

MUS 421 Secondary Instrumental Methods and Materials (3) ii. Organization and implementation of instrumental music programs in junior and senior high schools; problems, methods, conducting, and rehearsal techniques with laboratory experiences. Prerequisite: MUS 305.

MUS 450 Independent Study in Music (1-5). Investigation of selected problems or topics on an individual conference basis. Prerequisite: Completion of the major-minor application form in music, minimum 2.5 GPA in the major field of study, and consent of department chairperson.

Music Ensemble Courses

Students participating in instrumental ensembles during the fall semester must take MUS 145 concurrently. Students participating in instrumental ensembles in the spring semester must have been enrolled in MUS 145 the previous fall semester. This policy does not pertain to membership in MUS 346, MUS 348, or pianists/guitarists in MUS 344.

Students participating in vocal ensembles must be concurrently enrolled in MUS 140 or MUS 338.

Ensembles may be repeated for credit.

Major Ensembles

MUS 140 Community Chorus (1) i, ii. Group singing of various styles of music literature. Two hours per week.

MUS 141 Choir (1) i, ii. Performance of sacred and secular choral music; laboratory for conducting students. Two hours per week.

MUS 145 Marching Band (1) i. Performance of marching maneuvers. Five hours per week. May be repeated for credit. Rehearsals commence about two weeks before beginning of semester. Prerequisite: Consent of instructor.

MUS 146 Concert-Laboratory Band (1) ii. Basic concert band literature with public performance; laboratory for conducting and arranging students; experience on secondary instruments. Three hours per week. Prerequisite: Consent of instructor.

MUS 338 Concert Chorale (1) i, ii. Select ensemble, emphasizing performance of sacred and secular choral music. Four hours per week. Prerequisite: Consent of director.

MUS 346 String Ensemble (1) i, ii. Chamber music performance. Two hours per week. Prerequisite: Consent of director.

MUS 347 Symphonic Band (1) ii. Select ensemble emphasizing musicianship, playing skills, representative literature, and public performance. Four hours per week. Prerequisite: Consent of director.

MUS 348 Symphony Orchestra (1) i, ii. Performance with the St. Joseph Symphony Orchestra for students who qualify by audition.

MUS 349 Symphonic Wind Ensemble (1) i. Select ensemble structured for advanced brass, woodwind, and percussion students with minimum instrumentation; emphasizes original band literature. Two hours per week. Prerequisite: Audition and concurrent enrollment in MUS 145.

Chamber Ensembles

MUS 339 Chamber Singers (1) ii. Vocal chamber music performance. Three hours per week. Prerequisite: Consent of director.

MUS 340 Renaissance Singers (1) i. Vocal chamber music performance. Three hours per week. Prerequisite: Consent of director.

MUS 341 Swing Choir (1) i, ii. Performance of popular music with choreography. Three hours per week. Prerequisite: Consent of director.

MUS 343 Brass Ensemble (1) ii. Chamber music performance. Two hours per week. Prerequisite: Consent of director.

MUS 344 Jazz Ensemble (1) i, ii. Select ensemble for public performance. Three hours per week. Prerequisite: Consent of director.

MUS 345 Percussion Ensemble (1) i, ii. Performance of major percussion ensemble literature. Required of all percussion majors. Three hours per week. Prerequisite: Consent of director.

MUS 350 Woodwind Ensemble (1) ii. Chamber music performance. Two hours per week. Prerequisite: Consent of director.

Music Pedagogy Courses

MUS 130 Foundations in Singing I (2) i. Tone production, breath control, articulation, interpretation; international phonetic alphabet; Italian pronunciation for singing.

MUS 131 Foundations in Singing II (2) ii. Continuation of MUS 130. German and French pronunciation for singing. Prerequisite: MUS 130.

MUS 132 Class Brass I (1) i. Class lessons to develop playing skills and teaching knowledge of trumpet and French horn; techniques of teaching instrumental groups.

MUS 133 Class Brass II (1) ii. Class lessons to develop playing skills and teaching knowledge of trombone, euphonium, and tuba; techniques of teaching instrumental groups. Prerequisite: MUS 132.

MUS 134 Class Percussion I (1) i. Class lessons to develop playing skills and teaching knowledge of snare drum, marching percussion, and drum set; introduction to timpani and mallets.

MUS 135 Class Percussion II (1) ii. Class lessons to develop playing skills and teaching knowledge of timpani, marimba, xylophone, bells, chimes, and multipercussion; techniques of teaching instrumental groups. Prerequisite: MUS 134.

MUS 230 Class Woodwinds I (1) i. Class lessons to develop playing skills and teaching knowledge of single reeds; introduction to flute; techniques of teaching instrumental groups.

MUS 231 Class Woodwinds II (1) ii. Class lessons to develop playing skills and teaching knowledge of double reeds; continuation of flute; techniques of teaching instrumental groups. Prerequisite: MUS 230.

MUS 232 Class Strings I (1) i. Class lessons to develop playing skills and teaching knowledge of violin and viola; techniques of teaching instrumental groups.

MUS 233 Class Strings II (1) ii. Class lessons to develop playing skills and teaching knowledge of cello and double bass; techniques of teaching instrumental groups. Prerequisite: MUS 232.

MUS 330 Pedagogical Practices: Brass (1-2) i, ii. Principles of teaching brass in the independent music studio; content will be determined by student need. May be repeated for credit. Prerequisite: Consent of instructor.

MUS 331 Pedagogical Practices: Keyboard (1-2) i, ii. Principles of teaching keyboard in the independent music studio; content will be determined by student need. May be repeated for credit. Prerequisite: Consent of instructor.

MUS 332 Pedagogical Practices: Percussion (1-2) i, ii. Principles of teaching percussion in the independent music studio; content will be determined by student need. May be repeated for credit. Prerequisite: Consent of instructor.

MUS 333 Pedagogical Practices: Strings (1-2) i, ii. Principles of teaching strings in the independent music studio; content will be determined by student need. May be repeated for credit. Prerequisite: Consent of instructor.

MUS 334 Pedagogical Practices: Voice (1-2) i, ii. Principles of teaching voice in the independent music studio; content will be determined by student need. May be repeated for credit. Prerequisite: Consent of instructor.

MUS 335 Pedagogical Practices: Woodwinds (1-2) i, ii. Principles of teaching woodwinds in the independent music studio; content will be determined by student need. May be repeated for credit. Prerequisite: Consent of instructor.

Applied Music Courses

Applied Music—Secondary Instrument (1) i, ii. For the music major studying with a secondary applied area and for the nonmajor; studies compatible with the student's training and development. May be repeated for credit. Special fees for applied music are assessed for these courses. Prerequisite: Appropriate applied music methods courses and/or consent of instructor.

The following applied areas are available:

MUS 150 Applied Euphonium	MUS 160 Applied Violin
MUS 151 Applied French Horn	MUS 161 Applied Bassoon
MUS 152 Applied Trombone	MUS 162 Applied Clarinet
MUS 153 Applied Tuba	MUS 163 Applied Flute
MUS 154 Applied Trumpet	MUS 164 Applied Oboe
MUS 155 Applied Percussion	MUS 165 Applied Saxophone
MUS 156 Applied Cello	MUS 167 Applied Organ
MUS 157 Applied Double Bass	MUS 168 Applied Piano
MUS 159 Applied Viola	MUS 169 Applied Voice

Applied Music—Major Instrument (1-2) i, ii. For the music major; studies compatible with the student's applied level. The specific level requirements are available from the appropriate applied instructor or the Department of Music office. May be repeated for credit. Special fees for applied music are assessed for these courses. Prerequisite: Consent of instructor.

The following applied areas are available:

MUS 170, 270, 370, 470 Applied Euphonium	MUS 180, 280, 380, 480 Applied Violin
MUS 171, 271, 371, 471 Applied French Horn	MUS 181, 281, 381, 481 Applied Bassoon
MUS 172, 272, 372, 472 Applied Trombone	MUS 182, 282, 382, 482 Applied Clarinet
MUS 173, 273, 373, 473 Applied Tuba	MUS 183, 283, 383, 483 Applied Flute
MUS 174, 274, 374, 474 Applied Trumpet	MUS 184, 284, 384, 484 Applied Oboe
MUS 175, 275, 375, 475 Applied Percussion	MUS 185, 285, 385, 485 Applied Saxophone
MUS 176, 276, 376, 476 Applied Cello	MUS 187, 287, 387, 487 Applied Organ
MUS 177, 277, 377, 477 Applied Double Bass	MUS 188, 288, 388, 488 Applied Piano
MUS 179, 279, 379, 479 Applied Viola	MUS 189, 289, 389, 489 Applied Voice

MUS 390 Junior Recital (1) i, ii, iii. For performance-emphasis majors only. A one-half-hour recital required. Prerequisite: Consent of department. A special fee is assessed.

MUS 490 Senior Recital (1) i, ii, iii. Minimum requirements for music majors in the applied music—major instrument category. A one-half-hour recital required for graduation. Prerequisite: Consent of department. A special fee is assessed.

MUS 491 Senior Recital (1) i, ii, iii. For performance-emphasis majors in 400-level applied music. A one-hour recital required for graduation. Prerequisite: Consent of department. A special fee is assessed.

Department of Social Sciences

Dr. D. Steiniche, *chairperson*

The social sciences study human societies to understand their history, components, varieties, and behavior. These sciences study the changes, organization, and disorganization of societies, and they examine the varieties of people in society, their character and conduct, and the evidence of their "human nature." Students who major in social sciences usually prepare for careers in teaching, government, law, business, or social work.

Bachelor of Arts Degree Requirements

The B.A. requires 16 credits in a single foreign language.

Major In History

Courses in history must total 30 credits, with an additional 24 credits required in supporting areas. The following specific courses are required: HIS 100, 110, 140, 150, 200, 330 or 340, plus 12 additional credits in history, including 9 credits in courses numbered 300 or higher; PSC 101, 110, plus 3 additional credits in political science; SOC 110 plus 3 additional credits in sociology; GEO 100; ECO 260; 3 credits in social science other than history.

Major In Political Science

Courses in political science must total 30 credits, with an additional 24 credits required in supporting areas. The following specific courses are required: PSC 101, 110, 200, 210, 310, 320, plus 12 additional credits in political science courses numbered 300 or higher; HIS 100, 110, 140, 150; SOC 110 plus 3 additional credits in sociology; GEO 100; ECO 260.

Major In Sociology

Courses in sociology must total 30 credits, with an additional 27 credits required in supporting areas. The following specific courses are required: SOC 110, 120, 230, 310, 440, 460, plus 12 additional credits in sociology, including 9 credits in courses numbered 300 or higher; HIS 100 or 110, 140, 150; PSC 101, 110, 320 or 330; GEO 100; ECO 260; MAT 201.

Bachelor of Science Degree Requirements

Major In History

The requirements for the B.S. are the same as the requirements for the B.A. except that the foreign language requirement is replaced by an 18-credit minor. The course work for this minor area should be worked out with the student's major advisor.

Major In Political Science

The requirements for the B.S. are the same as the requirements for the B.A. except that the foreign language requirement is replaced by an 18-credit minor. The course work for this minor area should be worked out with the student's major advisor.

Major In Sociology

The requirements for the B.S. are the same as the requirements for the B.A. except that the foreign language requirement is replaced by an 18-credit minor. The course work for this minor area should be worked out with the student's major advisor.

Bachelor of Science In Education Degree Requirements

Major In Social Science

Course work in the social sciences must total a minimum of 50 credits including at least 11 credits in social science courses numbered 300 or above. Specific requirements are: 12 credits in European or world history including HIS 100, 110; 12 credits in American history including HIS 140, 150; 9 credits in political science including PSC 101; 9 credits in sociology; 3 credits in geography; 3 credits in economics; HIS 465.

Bachelor of Social Work Degree Requirements

The student who is interested in pursuing the Bachelor of Social Work degree is encouraged to complete a major-minor application form as soon as possible, declaring an intention to major in social work; however, formal entry into the baccalaureate program in social work is through interview and acceptance by the social work faculty. Prior to the interview the student must have completed at least 45 credits in college course work with a minimum GPA of 2.3.

Courses in social work must total 32 credits, with an additional 39-41 credits in related areas. The following specific courses are required: SWK 250, 320, 330, 350, 410, 420, 460 (two semesters), 470; SOC 110, 230, 330, 440, 460; PSC 101, 320; PSY 101, 304, 320, 401; ECO 260; BIO 101 or higher.

Minors

Minor In Geography

Courses in geography and related areas must total 18 credits. The following specific courses are required: GEO 100, 150, 210, 220, 320; BIO 305.

Minor In History

Courses in history must total 18 credits.

United States history option: HIS 140, 150, 300, 330, plus an additional 6 credits in history courses numbered 300 or higher.

European history option: HIS 100, 110, 200, 320 or 340, plus an additional 6 credits in history courses numbered 300 or higher.

Minor In Political Science

Courses in political science must total 18 credits.

American government option: PSC 320, 330, 360, 410, plus an additional 6 credits in political science courses numbered 300 or higher.

International affairs option: PSC 200, 210, 340, 440, plus an additional 6 credits in political science courses numbered 300 or higher.

Minor In Social Work

Courses in social work must total 16 credits. Courses in related areas must total 12 credits. The following specific courses are required: SWK 250, 320, 330, 350, plus 3 credits in social work electives; SOC 230 and 330; PSY 101; ECO 260.

Minor In Sociology

Courses in sociology must total 18 credits. The following specific courses are required: SOC 230, 310, 340, 440, plus an additional 6 credits in sociology courses numbered above 300.

Geography Courses

GEO 100 World Geography (3) i, ii, iii. Introductory course which emphasizes the interrelationships between man and the natural environment.

GEO 150 The Geography of Human Environments (3) i. An introduction to the discipline of geography, covering the four traditions of geography: human-environment relations, spatial analysis, earth's processes and regional analysis.

GEO 210 Geography of the United States and Canada (3). Regional study of the physical, cultural and economic geography of the United States and Canada. Prerequisite: A course in geography.

GEO 320 Geography of Europe (3). The nations and regions of Europe west of the Soviet Union, with present economics as a result of cultural and physical differences in the environment; trends of development as affected by new political and economic factors. Prerequisite: A course in geography or European history.

GEO 330 Economic Geography (3). Patterns of distribution, production, and consumption of the world's goods; causal factors of geographic location of agricultural, industrial, and extractive production; world trade routes, increasing industrial production, problems of nonindustrial nations.

History Courses

HIS 100 Ancient and Medieval Civilization (3) i, ii. The western world from antiquity to the fifteenth century; the emergence of civilization in the Nile and Tigris-Euphrates valleys; the political, social, economic, and intellectual contributions of Greece, Rome, and medieval Europe.

HIS 110 Modern Civilization (3) i, ii. The western world from 1500 to 1815; national states, the geographical revolution, the founding of European overseas empires, the Reformation, the emergence of constitutional governments, the Scientific Revolution, and the American and French revolutions.

HIS 140 American History to 1865 (3) i, ii, iii. The discovery of America to the end of the Civil War; colonial America, the Revolution, national development, sectionalism, and the Civil War.

HIS 150 American History since 1865 (3) i, ii, iii. Continuation of HIS 140. Construction, industrialization, urbanization, emergence as a world power, progressivism, World War I, the New Deal, World War II, and postwar America.

HIS 200 Europe 1815-1914 (3) i. Europe from the Congress of Vienna to 1914; reaction and revolution, nationalistic movements, rise of socialism-communism, the diplomatic background of World War II.

HIS 220 History of Missouri (3) ii (even-numbered years). Missouri under French and Spanish rule, the American acquisition, the role of the state in the slavery crisis and in the settlement of the West; studies the state's contributions to politics, art, literature, education, industry, and transportation.

HIS 300 American Colonial History (3) i. The founding of the British North American colonies; origins of American cultural, religious, and racial diversity; British colonial administration to the Revolution. Prerequisite: 6 credits in American history.

HIS 305 The American Frontier (3) ii (odd-numbered years). Westward expansion of the United States over three centuries; colonial frontier, trans-Appalachian frontier, trans-Mississippi frontier; significance of the frontier in American history. Prerequisite: 6 credits in American history.

HIS 310 English History I (3) i (even-numbered years). Anglo-Saxon England, the Norman influence, development of English political, social, economic, and intellectual ideas, Tudor England, the Stuarts, the "glorious revolution," 1688.

HIS 320 English History II (3) ii (odd-numbered years). The founding of the British Empire and the role of England in the modern world.

HIS 325 American Economic History (3). English mercantilism, laissez-faire and its effect on American economic development, the emergence of the corporation and the trust, the issue of government regulation, and the role of the government in the economy of today. Prerequisite: 6 credits in American history.

HIS 330 Recent United States History (3) i. The United States since World War I, with emphasis on current problems. Prerequisite: HIS 140 and 150 or consent of instructor.

HIS 340 Recent European History (3) ii. Europe in World War I, the rise of dictatorships, the League of Nations, new alignments, World War II, and the postwar period. Prerequisite: HIS 200.

HIS 350 History of the Far East (3). East Asia and the Pacific from antiquity to the present; Oriental religion, politics, and the economy; impact of European and American traders and missionaries, the founding of European empires, Oriental resistance to Westernization, and the emergence of modern China, Japan, and the Pacific nations. Prerequisite: HIS 110 or 200.

HIS 360 The British Empire (3) i (odd-numbered years). The Age of Discovery and the founding of the old British Empire, the empire after the American Revolution, the Commonwealth of Nations, and the decline of empire after 1945.

HIS 370 History of Latin America (3) ii. A survey course including cultures, colonial period, independence movements, national developments, relations with the United States and Europe.

HIS 380 The French Revolution and Napoleon (3). The Old Regime in France, failure of the Bourbon monarchy, the Revolution, the rise of Napoleon, the Napoleonic Wars to the Congress of Vienna, 1815. Prerequisite: 6 credits in European history.

HIS 400 Civil War and Reconstruction (3) i (odd-numbered years). Sectionalism in antebellum America; developing sectional crisis and coming of the Civil War; effects of the war and reconstruction of the nation. Prerequisite: 6 credits in American history.

HIS 420 History of Africa (3). North Africa in the ancient world, Africa during the age of geographical discoveries, nineteenth century European imperialism, the emergence of modern African states and their problems. Prerequisite: 6 credits in European history.

HIS 450 Independent Study in History (1-5) i, ii. Investigation of selected problems or topics on an individual conference basis. Prerequisite: Completion of major-minor application form in history, minimum 2.5 GPA in the major field of study, and consent of department chairperson.

HIS 465 Methods of Teaching Social Studies (2) i. Principles and methods of teaching social studies in secondary school; objectives, problems, materials, and methods applied to the social studies curriculum. Prerequisite: Consent of advisor.

Political Science Courses

PSC 101 American National Government (3) i, ii, iii. The American constitutional system, including Congress, the presidency, and the courts; and public issues.

PSC 110 American State and Local Government (3) i, ii. Colonial and revolutionary origins of state government; state constitutions; referendum, initiative, and recall procedures; state legislatures; governors; state courts; county and municipal governments. Prerequisite: PSC 101.

PSC 200 International Politics (3) ii. The nature of politics at the international level; the national state system and state capabilities; foreign policy objectives, formulation, and execution; international organizations and alignments; contemporary world tensions. Prerequisite: PSC 101.

PSC 210 Comparative Political Systems (3) ii. Structural-functional analysis of major European political systems; comparison and contrast among such systems and with others of contemporary significance. Prerequisite: PSC 101.

PSC 300 Political Parties and Interest Groups (3) ii (even-numbered years). Evolution of the American two-party system; place of the interest group in decision making through interaction with executive and legislative branches. Prerequisite: 6 credits in political science.

PSC 310 Political Theory (3) i. Political theories of classical thinkers, Plato and Aristotle; of church fathers, Augustine and Aquinas; and of modern theorists, Machiavelli, Hobbes, Locke, Rousseau, and Mill; Marxism and Fascism. Prerequisite: PSC 101.

PSC 320 Public Administration (3) ii. Organization theory; bureaucracy; public personnel and policy; issues in American public administration. Prerequisite: PSC 101.

PSC 330 Municipal Government (3) ii (odd-numbered years). The growth of cities, their legal status, municipal politics and elections, forms of city government, municipal services and functions. Prerequisite: 6 credits in political science.

PSC 340 Latin American Political Systems (3) i (even-numbered years). Comparative approach to Latin American political institutions; investigates causes for political instability; revolution, the new military, socialism vs. communism, and economic development and U.S. policy. Prerequisite: 6 credits in political science.

PSC 350 Governments of Britain and the Commonwealth (3) i. The British constitutional system and parliamentary government, variations of the Westminster model which have evolved in the Commonwealth; governmental efforts to cope with Britain's current social and economic problems. Prerequisite: PSC 101 or consent of instructor.

PSC 360 The American Presidency (3) ii (even-numbered years). The place of the president in decision making in the American federal system, his constitutional roles, the legal and extra-legal checks on presidential power. Prerequisite: PSC 101.

PSC 400 American Foreign Policy (3) i (odd-numbered years). Policy making, the role of the public in decisions, formulation and implementation of national policy, U.S. policy goals in various areas of the world, decision making in crisis situations. Prerequisite: PSC 101 and 200.

PSC 410 The Legislative Process (3) ii (odd-numbered years). The American Congress, its organization, rules, role in law making; the role of interest groups, congressional investigations, and the modern presidency in the legislative process. Prerequisite: 6 credits in political science.

PSC 420 Constitutional Law (3) i (odd-numbered years). The role of the Supreme Court in the American system; judicial review and its significance under Marshall, Fuller, Taft, Hughes, and Warren; majority and minority opinions; the process of decision making. Prerequisite: PSC 101.

PSC 440 International Law and Organization (3) i (even-numbered years). Legal and political foundations of the international system; settlement of disputes between states, prevention of war, maintenance of security, the United Nations, regional arrangements for collective defense, the development of economic-political units. Prerequisite: PSC 101 and 200.

PSC 450 Independent Study in Political Science (1-5) i, ii. Investigation of selected problems or topics on an individual conference basis. Prerequisite: Completion of major-minor application form in political science, minimum 2.5 GPA in the major field of study, and consent of department chairperson.

Social Work Courses

SWK 250 Introduction to Social Work (3) i, ii. Basic patterns of professional social work practice; generic framework for the scientific practice of social work.

SWK 320 Philosophy and Policy in Social Services I (3) ii. Historical significance of social legislation, its impact on the individual and society; social philosophy, social service, and social change. Prerequisite: SWK 250.

SWK 330 Human Behavior and Social Environment (3) ii. The social systems approach; its application to evaluating people in groups and to social work concepts of human development in all stages of the life cycle. Prerequisite: SWK 250.

SWK 350 Social Work Methods I (4) ii. Explores the helping relationship and basic skills necessary to respond to client needs. Three hours lecture, three hours lab per week. Prerequisite: SWK 250 and junior status in social work.

SWK 410 Social Work Methods II (3) i. Continuation of SWK 350. Social interventive skills; generalist practice skills systems, integration of experiences, and current practical literature. Prerequisite: SWK 350 and formal acceptance into the social work program.

SWK 420 Philosophy and Policy in Social Services II (3) i. Continuation of SWK 320. Analyzes the philosophy and policies of presently active social agencies; policy reforms and evaluation of their possible effectiveness. Prerequisite: SWK 320, senior status in social work.

SWK 450 Independent Study in Social Work (1-5) i, ii. Investigates selected problems or topics on an individual conference basis. Prerequisite: Completion of major-minor application form in social work, minimum 3.0 GPA in major field of study, and consent of department chairperson.

SWK 460 Practicum in Social Work (5) i, ii. Field experience under the supervision of trained professionals in the field of social work. Sixteen hours per week in an agency setting. Two semesters required, for a total of 10 credits. Prerequisite: SWK 350, senior status in social work.

SWK 470 Social Work Methods III (3) ii. Continuation of SWK 410. Focus on group, family and community intervention; other selected topics; integration of practicum experiences; and current literature. Prerequisite: SWK 410 and 460 i.

Sociology Courses

SOC 110 General Sociology (3) i, ii, iii. Sociology concepts: social organization, human interaction with individuals and groups, population, and social change.

SOC 120 General Anthropology (3) i. The biocultural evolution of the human species, with emphasis on culture as adaptation for survival; comparison of human nonliterate societies, stressing cultural variability, cultural relativity, and similarities between cultures.

SOC 230 Social Institutions (3) i, ii. The structure of human society, social stratification, and familial, religious, and educational institutions. Prerequisite: SOC 110.

SOC 310 Social Deviation (3) ii. Individual and social disorganization; delinquency, alcoholism, minority groups, discrimination, and marital conflict. Prerequisite: SOC 110 and 230.

SOC 320 Urban Sociology (3). Population dynamics and urban growth; processes of urbanization, social differentiation, bureaucratization, and inequality as they affect social organization and life style; the modern city and metropolitan areas as distinctive units of analysis. Prerequisite: 6 credits in sociology.

SOC 330 The Family (3) ii. The family as a basic institution; the structure and functions of the modern family in a changing urban environment. Prerequisite: 6 credits in sociology.

SOC 340 Social Relations (3) i. The individual as a social actor: sociological conceptualizations of mind, self, and society; interrelationships between the individual and structure and process of society. Prerequisite: SOC 110.

SOC 350 Collective Behavior (3). Analysis of collective phenomena, propaganda, crowds, public opinion polls, pressure groups, and social movements. Prerequisite: 6 credits in sociology.

SOC 400 Minority Groups (3) ii. The characteristics of minority groups, theoretical interpretations of minority-majority relations, groups conflict, and social differentiation in complex societies. Prerequisite: 6 credits in sociology.

SOC 430 Criminology (3) i. Theories of criminal behavior, legal concepts, criminal statistics, corrective treatment, and crime control. Prerequisite: SOC 110 and 230.

SOC 440 Sociological Theory (3) i. Historical and empirical treatment of the development, structure, and functioning of human social systems. Prerequisite: 12 credits in sociology.

SOC 450 Independent Study in Sociology (1-5) i, ii. Investigation of selected problems or topics on an individual conference basis. Prerequisite: Completion of major-minor application form in sociology, minimum 2.5 GPA in major field of study, and consent of department chairperson.

SOC 460 Research Methods in Sociology (3) ii. Ethical, epistemological, and theoretical foundations of the research process; basic assumptions, derivation of hypotheses, techniques for empirically testing the validity of the propositional structure of sociological and anthropological theories. Prerequisite: 15 credits in sociology, including SOC 440.

Department of Speech, Theatre, and Humanities

Dr. Phil Mullins, *chairperson*

The Department of Speech, Theatre, and Humanities comprises several diversified areas of knowledge and experience. The humanities center on the human being — aspirations, potentialities, relationships with others — especially as they are reflected in literature, drama, philosophy, and religion. The department is concerned with communicative transactions between human beings — the expression, comprehension, and exchange of ideas through either oral or written discourse or artistic endeavor. It is through an understanding of these processes that a picture of the total human being emerges. Students in the department are introduced to many aspects of mankind's social and creative life, thereby acquiring a background for careers in numerous fields such as linguistics, law, politics, journalism, public relations, communications, teaching, and others.

The Department of Speech, Theatre, and Humanities offers the following degrees: (1) the Bachelor of Arts degree both in speech communication and in theatre; (2) the Bachelor of Science degree in speech communication; (3) the Bachelor of Science in Education degree (a joint degree combining speech communication and theatre). Students may minor in Humanities as well as in Speech and Theatre.

Bachelor of Arts Degree Requirements

The B.A. requires 16 credits in a single foreign language.

Major in Speech Communication

Courses must total 36 credits. The following specific courses are required: SPH 208, 305, 314, 324, 334, 335, 475, plus 12 additional credits in speech; THR 124.

Major in Theatre

Courses in theatre and related areas must total 39 credits. The following specific courses are required: THR 118, 124, 217, 239, 249, 259, 267, 338, 368 or 478, plus an additional 12 credits selected from theatre courses, of which 9 credits must be numbered 300 or higher (6 credits may be selected from nontheatre courses, but must have departmental approval).

Minor in Speech Communication

Courses in speech must total 21 credits. The following specific courses are required: SPH 208, 305 or 324, 314, 334, 335, plus 6 additional credits in speech.

Minor in Theatre

Courses in theatre must total 20 credits. The following specific courses are required: THR 140, 218, 249 or 259, 267, 338, plus elective credits in theatre or departmentally approved course work to total 6 credits, 3 of which must be numbered 300 or higher.

Minor in Humanities

Courses in humanities and approved electives must total 21 credits. The following specific courses are required: HUM 203, 205, 360 plus one course selected from HUM 210, 230, 250. Nine additional credits must be selected from HUM 210, 230, 250, 263, 264, ART 205 or 255 (not both), ENG 248, MUS 310 or 311 (not both), SPH 335, THR 267, or other courses approved by the humanities faculty.

Bachelor of Science In Speech Communication Degree Requirements

Courses must total 53 credits. The following specific courses are required: SPH 208, 305, 314, 324, 334, 335, 475, plus 12 additional credits in speech; THR 124, MAT 201, CSC 182, PSY 300, PSY 301, and 3 credits selected from PSY 415 or CSC 188 or CSC 245 (PSY 200 is waived for persons declaring this degree option).

Bachelor of Science In Education Degree Requirements

Major In Speech and Theatre

Courses in speech and theatre must total 42 credits. The following specific courses are required: SPH 204, 208, 305 or 324, 314, 334, 465; THR 118, 124, 217, 218, 239, 249, 267, 338.

Minor In Speech and Theatre

Courses in speech and theatre must total 21 credits. The following specific courses are required: SPH 208 or 334, 305 or 324, 465; THR 124, 218, 249, 338.

Speech Courses

SPH 104 Oral Communication (3) i, ii, iii. Principles of speech as applied in meaningful participation in society. Not available for credit to students with credit or concurrent enrollment in SPH 105.

SPH 105 Business and Professional Speech Communication (3) i, ii. Principles of speech communication directly applicable to the professions and business involving formal presentations of various types: interview techniques and skills, meeting methods and management, and presentational speaking. Not available for credit to students with credit or concurrent enrollment in SPH 104.

SPH 204 Mass Communication (3) ii. Basic concepts of mass communication; interpretation of mass communication as a persuasive, artistic, and social force.

SPH 208 Public Speaking (3) ii (even-numbered years). Theory and practice of constructing informative and persuasive speeches, audience analysis, logical and emotional appeals, credibility, evidence, organization, style, and delivery.

SPH 218 Oral Interpretation (3) i (even-numbered years). Oral reading and analysis of prose, poetry, and drama. Same as THR 218.

SPH 234 Laboratory Forensics (1) i, ii. Participation in collegiate forensic activities including debate, oratory, manuscript reading, oral interpretation, and extempore speaking. May be repeated for a maximum total of 4 credits. Course grades assigned on a pass-fail basis.

SPH 305 Interpersonal Communication (3) ii (odd-numbered years). Analyzes communication interaction in relatively unstructured, person-to-person settings with application of interpersonal communication concepts to resolving problems emerging from human interactions.

SPH 310 Public Relations Communication Analysis (3) ii. Applies principles of speech communication to the image-building functions of internal and external public relations; audience analysis, internal/external organizational communication audits, persuasive campaign design, communication channels and barriers. Prerequisite: SPH 104 or 105.

SPH 314 Persuasion (3) i (even-numbered years). Persuasion as a process of influencing attitude and behavior, preparation and delivery of persuasive discourse; emphasizes experimental research as reflected in the persuasive process. Prerequisite: SPH 104 or 105.

SPH 317 Speech for the Classroom Teacher (3) i (odd-numbered years). Analysis of speech formats for classroom instruction: oral reports, group discussion, interviews, oral interpretation, storytelling, mini-lecture, and formal lecture.

SPH 324 Small Group Communication (3) ii (even-numbered years). Group roles, leadership styles, group structure, thought processes, and consensus methods; application of concepts to communication interaction in vocational and social group settings.

SPH 334 Argumentation and Debate (3) i (odd-numbered years). Philosophical and theoretical foundations of logic and argumentation to the persuasive process; experience in preparation and presentation through debate and discussion formats. Prerequisite: SPH 104 or 105.

SPH 335 Theories of Rhetoric and Communication (3) i (odd-numbered years). Survey of the formation and transformation of rhetorical precepts from the classical period to modern; studies recent theories of communication. Prerequisite: SPH 104 or 105.

SPH 345 Nonverbal Communication (3) i. Nonverbal aspects of communication; factors which affect and modulate verbal messages; interpretation of nonverbal information; kinesics (body motion), proxemics (social/personal space), and paralanguage (vocal cues accompanying words). Prerequisite: SPH 104 or 105.

SPH 410 Organizational Communication (3) ii (odd-numbered years). Theories and problems of human communication within a variety of organizational settings; the relationship of communication to motivation, organizational structure, nonverbal behavior, surroundings, leadership style, and information accuracy. Prerequisite: 3 credits in speech or consent of instructor.

SPH 450 Independent Study in Speech (1-5) i, ii. Investigation of selected problems or topics on an individual conference basis. Prerequisite: Completion of major-minor application form in speech, minimum 2.5 GPA in major field of study, and consent of department chairperson.

SPH 460 Internship in Applied Communication (1-3) i, ii. Applies communication theory and skills to actual work situations encompassing one or more of the following: internal/external organizational communication audits, audience analysis, interviewing, persuasive campaign design, public speaking. Professionally supervised work experiences related to the student's area of interest. (Thirty hours of work for each hour of credit.) Application must be made at least one semester prior to course registration. May be repeated for a total of 6 credits. Prerequisite: Senior status in the speech communication program and consent of department chairperson.

SPH 465 Methods of Teaching Speech and Drama (3) i (even-numbered years). Philosophies, issues, and problems in contemporary speech education; content, structure, presentation, and evaluation of curriculum and teaching in speech and theatre. Prerequisite: Consent of instructor.

SPH 475 Rhetorical Criticism (3) ii (even-numbered years). Application of various theories of rhetoric and communication to the analysis and criticism of discourse. Prerequisite: SPH 335.

Theatre Courses

THR 113 Introduction to Theatre (3) i, ii. The contributions made by directors, actors, designers, technicians, and playwrights to modern dramatic productions. Participation in a production as performer, member of stage or construction crew, or member of production committee is an optional activity but is not required.

THR 115 American College Theatre Festival (1) ii. An intense exposure to theatre by means of attendance at the regional American College Theatre Festival. May be repeated for a total of 4 credits. Course grades assigned on a pass-fail basis.

THR 118 Acting (3) i. Basic principles of acting and stage movement developed through improvisational techniques.

THR 124 Voice and Diction (3) ii. Theories and techniques of improving voice and articulation; includes mastery of a working knowledge of phonetics.

THR 140 Production Participation (1-3) i, ii, iii. Forty hours of supervised practical work in any area of theatrical activity for each credit. May be repeated for a total of 6 credits. Course grades assigned on a pass-fail basis.

THR 217 Play Analysis (3) i (odd-numbered years). Study of the written script from the standpoint of the actor, director, and designer; strategies of plotting, characterization, thematic development, and style; descriptive analysis of the principal dramatic genres and styles.

THR 218 Oral Interpretation (3) i (even-numbered years). Oral reading and analysis of prose, poetry, and drama. Same as SPH 218.

THR 229 Stage Makeup (1) ii (even-numbered years). Techniques and materials involved in two-dimensional stage makeup. Two hour lab with lecture/demonstration. (Students must furnish assorted makeup).

THR 239 Costume Techniques (2) i (even-numbered years). Fundamentals of costuming for the stage, a study of fabrics and construction, basic cutting and sewing techniques, costume shop management, and a brief look at costume history and design.

THR 249 Stagecraft: Stages and Construction (4) i (odd-numbered years). Stages, staging techniques, and construction in relation to theatrical production requirements. Three hours lecture-demonstration, four hours lab.

THR 259 Stage Lighting (3) ii (even-numbered years). Continuation of THR 249. Emphasizes the elements of stage lighting as a production requirement. Two hours lecture-demonstration, two hours lab.

THR 267 History of the Theatre (3) i (even-numbered years). The history of the theatre from its beginnings to the present day.

THR 338 Directing (3) ii (odd-numbered years). Principles of play direction: selection, casting, blocking, staging a production. Prerequisite: THR 217, 249, or consent of instructor.

THR 339 Design for the Theatre (3) i (odd-numbered years). Theory and techniques involved in the creative process of theatrical design with applications culminating in a completed set of designs; emphasizes scene and costume design. Two hours lecture, two hours lab. Prerequisite: THR 239.

THR 368 Shakespeare (3). A study of selected works. Same as ENG 368. Prerequisite: ENG 108 or 112, or consent of instructor.

THR 370 Summer Theatre Workshop (3) iii. Practical experience in designing, staging, acting, and producing a play or plays with individual assignments designated by the instructor. May be repeated for a maximum of 6 credits. Prerequisite: Consent of instructor.

THR 418 Independent Projects in Acting (1-3) i, ii, iii. Specialized research or performance problems; scholarly projects in the theory of acting for advanced students. Written project proposal must have instructor's approval before student's registration. May be repeated for a total of 6 credits. Prerequisite: THR 118, 218, and/or consent of instructor.

THR 438 Independent Projects in Directing (1-3) i, ii, iii. Advanced study in script analysis, staging techniques, rehearsal procedures, and technical coordination; ordinarily includes directing a laboratory production. Formal production prospectus must be submitted one full semester in advance of enrollment and must be approved by the instructor before student's registration. May be repeated for a total of 6 credits. Prerequisite: THR 217, 239, 259, 338, or consent of instructor.

THR 449 Independent Projects in Technical Theatre (1-3) i, ii, iii. Project course involving specialized study in technical theatre. Student must submit project proposal to theatre staff one full semester before enrollment. Prerequisite: THR 229, 239, 249, 259 or 339, and consent of instructor.

THR 478 Modern Drama (3). Drama from Ibsen to the present. Same as ENG 478. Prerequisite: ENG 108 or 112, or consent of instructor.

Humanities Courses

HUM 203 Humanities: Ancient and Medieval (3) i, ii, iii. The social and intellectual history of mankind as reflected by literature, art, music, drama and discourse from the classical period to the Renaissance.

HUM 205 Humanities: Renaissance to Twentieth Century (3) i, ii, iii. The social and intellectual history of mankind as reflected by literature, art, music, drama and discourse from the Renaissance to the present.

HUM 210 Introduction to Philosophy (3) i, ii, iii. Survey of the origins and development of philosophical thought.

HUM 219 Logic (3) i. A study of modern formal reasoning with practice in testing and demonstrating the validity of arguments: mathematical logic beginning with the propositional calculus and concluding with an introduction to the first order logic of relations up to identity.

HUM 230 Ethics (3) ii. Definition, meaning, scope, and application of ethics; an analysis of ethics in ancient, medieval, and modern times.

HUM 250 Comparative Religions (3) i, ii. Survey of nature and effects of major and minor religions on the culture and civilization of mankind.

HUM 263 Religion of the Old Testament (3) i (odd-numbered years). Introduction to the major elements of the Old Testament from the perspective of contemporary biblical scholarship.

HUM 265 Religion of the New Testament (3) ii (even-numbered years). Introduction to major elements of the New Testament from the perspective of contemporary New Testament scholarship.

HUM 360 Readings in the Humanities (3) ii. Specialized course work in the humanities of western civilization; emphasizes analysis of humanistic works of leading authors. Prerequisite: HUM 203 and 205, or consent of instructor.

Women's Studies

The Women's Studies program office, located in 112B Student Services/Classroom Building, is a clearinghouse of community and academic information for and about women. Programming on women's issues is planned each semester to bring more information and understanding to the campus.

Women's Studies academic courses are included in the regular curriculum within the appropriate academic departments. Additionally, one- and two-hour seminars are held approximately biweekly throughout the fall and spring semesters, and are free and open to the public. Women's Studies/Continuing Education courses, both credit and noncredit, are offered throughout each semester. Preregistration is encouraged through either the Women's Studies office or the Office of Continuing Education; however, registration and fee payment is possible at the first class meeting unless informational materials specify otherwise or a satisfactory class size is exceeded.

Some seminars and courses deal with traditional disciplines from a woman's perspective, seeking to fill many of the gaps in knowledge about women and female culture; others encourage introspection and discussion about contemporary issues. A primary goal of the program is for all participants to develop a deeper understanding of women and their contributions, unique attributes, and abilities.

"Reentry: A Day-Long Seminar for Adult Women Considering College," designed especially for women considering returning to school after several years' absence, is scheduled approximately one week before registration each semester. Participants have an opportunity to talk with other women who have returned, and can meet and talk with college personnel who will answer questions, discuss entrance procedures, and provide methods to ease the transition from homemaker to homemaker-student. This program is offered free of charge. Several Women's Studies/Continuing Education courses are also planned to assist the reentry student.

A publication listing Women's Studies courses, seminars, continuing education courses, and Reentry Day dates, as well as other campus activities for or about women, is available before student registration each semester. To be added to the mailing list or to obtain additional information, contact the Women's Studies office from 9:00 a.m. to 12:00 noon Monday through Friday (telephone 271-4280).

Office of Continuing Education

The role of the Office of Continuing Education is to provide for community educational needs and interests which are not met by the regular college curriculum. Short courses, seminars, and workshops scheduled independently of the traditional college calendar are offered to specialized populations and to the general public. Both credit and noncredit courses are offered.

A maximum of 6 credits in continuing education courses may be applied toward the total credits required for a degree, but may not be applied toward the credit requirements in an academic major.

Registration Procedures

Continuing education courses are open to anyone who may benefit from them. In some instances a particular competency level may be required for registration in a course. Registration is usually accomplished at the first meeting of the class.

Fees

Fees for continuing education courses must be paid at the time of registration for a class. Course fees are set by the dean of continuing education and are published at the time courses are announced.

Additional Information

Contact the Office of Continuing Education, telephone (816) 271-4217, to obtain specific information regarding continuing education courses, or to suggest courses which may be of interest to the community.

Evening and Saturday Program

A variety of courses are offered at Missouri Western State College in the evenings Monday through Thursday and on Saturday mornings. These courses are intended to serve the following purposes:

- Degree programs. Classes are scheduled to enable students to complete the total degree program in business and in psychology during evenings and on Saturday.
- General studies. Most of the courses required in the general studies programs at Missouri Western State College are available during evenings or on Saturday.
- Upgrading of skills for professional and career advancement.
- Cultural enrichment.

Evening and Saturday students register at the regular announced registration time at the beginning of each semester. Withdrawal from classes during the semester must be accomplished by contacting the Office of the Registrar in person or by letter to make formal withdrawal. If this formal withdrawal is not made, failing grades will be recorded in the courses in which the student was enrolled.

Summer Session

Missouri Western State College summer sessions are intended to serve students in various situations:

- Students who wish to accelerate their progress in a degree program.
- Students who carry only a partial course load during the fall and spring semesters.
- High school graduates who wish to get an advanced start in college.

Missouri Western welcomes summer students from other colleges and universities.

Appendices

Appendix A: Course Abbreviations

ACC — Accounting	HUM — Humanities
AEC — Agricultural Economics	JOU — Journalism
AGN — Agronomy	LAT — Lawyers' Assistant
AGR — Agriculture	LAW — Criminal Justice
ALH — Allied Health	LED — Library Science
ART — Art	LMA — Leisure Management
ASI — Animal Science	MAT — Mathematics
AUT — Automotive Technology	MIL — Military Science
BAN — Banking	MKT — Marketing
BIO — Biology	MTE — Medical Technology
BUS — Business	MUS — Music
CET — Construction Engineering Technology	NUR — Nursing
CHE — Chemistry	PED — Physical Education
CSC — Computer Science	PHS — Physical Science
ECO — Economics	PHY — Physics
EED — Elementary Education	PSC — Political Science
EET — Electronic Engineering Technology	PSY — Psychology
EGT — Engineering Technology	PTR — Pilot Training
ENG — English	SEC — Secretarial Science
ESC — Earth Science	SED — Secondary Education
FRE — French	SER — Small Engine Repair
GBA — General Business Administration	SOC — Sociology
GEO — Geography	SPA — Spanish
GER — German	SPH — Speech
HIS — History	SWK — Social Work
	THR — Theatre

Appendix B: The Board of Regents

<i>Appointed by Governor Joseph P. Teasdale, July 1979:</i>	
Peter O'Donnell	(term expires October 29, 1984)
<i>Appointed by Governor Christopher Bond, August 1981:</i>	
Kristin W. Findley, <i>president</i>	(term expires October 29, 1985)
Stanley I. Dale	(term expires October 29, 1986)
<i>Appointed by Governor Christopher Bond, December 1982:</i>	
Lawrence J. Schultz, <i>vice-president</i>	(term expires October 29, 1988)
<i>Appointed by Governor Christopher Bond, April 1983:</i>	
Margaret Joan Hegeman	(term expires October 29, 1987)
<i>Appointed by Governor Christopher Bond, November 1983:</i>	
Jim F. Summers, Jr.	(term expires October 29, 1989)

Appendix C: Administrative Staff

Bennett, Mary, Assistant Registrar (B.S., Albion College, M.A., Ball State University)
Berger, Robert, Director of Financial Aids (B.S., University of Kansas, M.A., Northwest Missouri State University)
Bumpus, Debbie, Women's Basketball Coach (B.S., Tennessee Technological University)
Burchard, Faye, Coordinator of Intramurals, Student Recreation and Facility Management (B.S.E., Arkansas State University, M.A., East Carolina University)
Bushhammer, Susan, Reference Coordinator (B.A., St. Bonaventure University, M.L.S., State University of New York at Geneseo)
Capelli, Stephen L., Dean of Career Programs (B.A., M.A., Trenton State College, Ph.D., University of Missouri)
Carr, Gabrielle, Reference Librarian (B.A., Hollins College, M.L.S., Indiana University)
Coyne, Charles, Dean of Education and Psychology (B.A., Iowa State Teachers College, M.A., Northeast Missouri State University, Ed.D., North Texas State University)
Dahl, Katherine, Reference Librarian (B.A., University of Minnesota-Morris, M.A., University of Minnesota-Minneapolis)
Fields, Judy, Research Analyst (B.S., Northwest Missouri State University)
Gaither, V. Roger, Director of Publications (B.S., M.S.Ed., Illinois State University, M.S., Ed.S., Indiana University)
Hawk, Kenneth L., Vice-President for Administrative Affairs (B.S., M.S., Fort Hays State University)
Hedrick, David, Assistant Football Coach/Admissions Counselor (B.S., Missouri Western State College)
Hernandez, Rufus, Coordinator, Job Location and Development (B.S., Missouri Western State College)
Hicklin, Robin, Head Football Coach/Admissions Counselor (B.S., Missouri Valley College, M.S., Central Missouri State University)
Hines, Robert, Registrar (B.S., Kansas State University, M.A., Central Missouri State University)
Hoff, Forrest, Dean of Student Affairs (B.S., Northwest Missouri State University, M.Ed., University of Missouri)
Ivers, Richard, Computer Project Coordinator (B.S., Northeast Missouri State University)
Jackson, Janice, Systems Analyst/Programmer
Jarrett, Shirley, Student Health Nurse (R.N., St. Joseph Hospital School of Nursing)
Leahy, Richard, Coordinator of Theatre
McCarthy, James, Executive Vice President (A.A., St. Thomas Seminary, B.A., Fairfield University, M.Ed., Springfield College, D.Ed., University of Massachusetts)
McCauley, Howard, Assistant Football Coach/Field Services Assistant (B.S., M.S., Northeast Missouri State University)
McDonald, Marvin, Director of Counseling and Testing (B.S., Northwest Missouri State University, M.A., Western College of Colorado)
McGaugh, Hervey, Director of Traffic and Security (B.S., Missouri Western State College)

McVey, Joyce, Admissions Counselor (B.S., Missouri Western State College)
Mehl, Mary P., Coordinator of Alumni Affairs (B.A., Colorado College, M.A., University of Missouri-Columbia)
Minnis, Douglas, Head Baseball Coach (B.S., M.S.Ed., Emporia State University)
Miriani, Dorothy, Counselor (B.A., University of Michigan, M.A., Vanderbilt University)
Murphy, Janet Gorman, President (B.A., University of Massachusetts, M.Ed., Boston University, Ed.D., University of Massachusetts)
Nikes, Greg, Bookstore Manager (B.S., Missouri Western State College)
Nunez, William J., III, Acting Vice President for Academic Affairs and Dean of Liberal Arts and Sciences (B.S., M.S., Louisiana State University, Ph.D., North Texas State University)
Owens, Patricia, Custodian Supervisor
Rainey, Charlene, Controller
Richards, Sylvie, Director of College Relations (B.A., Indiana State University, M.A., Columbia University of New York, M.Phil., Columbia University, Ph.D., Columbia University)
Rogers, Kathryn, Purchasing Agent
Schlesinger, Max, Director of Instructional Media Center (B.S., Bloomsburg State College, M.S., Rochester Institute of Technology)
Schneider, Julia, Coordinator of Technical Services (B.A., Northwest Missouri State University, M.A., University of Missouri)
Scott, Bob R., Dean of Continuing Education (B.S., University of Missouri, M.A., Washington University, Ed.D., University of Missouri)
Shear, Lawrence, Head Basketball Coach (B.A., Tarkio College, M.A., Appalachian State University)
Smith, Larry, Director of Physical Plant
Solomon, Marc M., Director of Computer Center (B.S., State University of New York at Oneonta, M.S., University of Missouri-Rolla)
Sullivan, Margaret, Director of Student Health Services (R.N., St. Joseph Hospital School of Nursing)
Sumrell, Rhesa, Coach and Coordinator of Women's Athletic Program (B.S., M.Ed., Middle Tennessee State University)
Sweetgall, Paul, Sports Information Specialist (B.S., M.A., Ohio State University)
Tryon, Judith, Director of Employee Relations and Services (B.A., University of Wisconsin)
Tyler, Melvin, Coordinator of Student Life (B.S., Northwest Missouri State University)
Vigliaturo, Joseph, Business Manager for Auxiliary Enterprises (B.S., Missouri Western State College, M.S., Colorado State University)
Vogel, Gary, Assistant Football Coach/Equipment Manager (B.S., Missouri Western State College)
Wigersma, Helen J., Dean of Learning Resources Center (B.A., University of Missouri, M.L.S., University of Illinois)
Willis, Joseph, Maintenance Coordinator
Young, Miller, Systems Analyst/Programmer (A.A., Kansas City, Kansas, Community Junior College)

Student Health Physicians

Ballard, Dr. Dewey	Challener, Dr. William
Bryant, Dr. Sydney Lane	Stallard, Dr. Donald
Carpenter, Dr. Tyson	Wolanski, Dr. Eugene

Appendix D: Faculty 1984-85

Allen, Reva, Assistant Professor of Social Work (B.A., Baylor University, M.A., University of Chicago)

Anderson, Jerry L., Assistant Professor of Music (B.S., Southwest Missouri State University, M.M., Wichita State University)

Andresen, William F., Professor of Biology (B.A., Wayne State Teachers College, M.S., Ph.D., University of Nebraska)

Andrews, Kathleen, Instructor of Nursing (B.S., Creighton University)

Andrews, Larry D., Instructor of Criminal Justice (B.S., Missouri Western State College, M.S., Central Missouri State University)

Archer, Leonard J., Associate Professor of Chemistry (B.S., Northwest Missouri State University, M.S., Ph.D., University of Nebraska)

Aschermann, Jerry R., Professor of Education (B.A., University of Northern Colorado, M.S., Ed.D., Utah State University)

Ashley, David C., Assistant Professor of Biology (B.S., M.S., Bowling Green State University, Ph.D., University of Nebraska)

Askins, Roy L., Assistant Professor of Social Sciences (B.A., University of California-Santa Barbara, M.S., Illinois Institute of Technology, Ph.D., University of Tennessee)

Bagnall, Norma, Assistant Professor of English (B.S., M.A., Texas A&M University)

Bargar, James S., Assistant Professor of Psychology (B.A., William Jewell College, M.A., Southern Methodist University)

Bennett, David, Instructor of Music (B.A., Albion College, M.M., Ball State University)

Bishop, George L., Assistant Professor of Mathematical Sciences (B.S., Northwest Missouri State University, M.Ed., Emporia State University)

Blankenship, Bill H., Assistant Professor of Business (A.A., Coffeyville Community Junior College, B.S., M.S., Oklahoma State University, C.P.A.)

Boutwell, Richard A., Assistant Professor of Biology (B.S., M.S., University of Nebraska)

Burchard, Robert P., Instructor of Physical Education and Assistant Basketball Coach (B.A., Catawba College, M.A., East Carolina University)

Butcher, Carl R., Assistant Professor of Criminal Justice (A.S., B.S., Missouri Western State College, M.S., Central Missouri State University)

Cagle, Gary A., Assistant Professor of Automotive Technology (B.S.Ed., Pittsburg State University, M.A., Northern Arizona University)

Castellani, Joseph, Professor of English (B.S., City College of New York, M.A., Columbia University, Ph.D., Ball State University)

Chelline, Warren H., Associate Professor of English (B.A., M.A., University of Missouri-Kansas City, Ph.D., University of Kansas)

Couldry, William, Assistant Professor of Physical Education (B.S., Missouri Western State College, M.S., Kansas State University)

Cowsert, Lane, Associate Professor and Chairperson of Agriculture (B.S., University of Tennessee-Martin, M.S., Ph.D., University of Tennessee-Knoxville)

Cromwell, CAPT. Paul E., Instructor of Military Science (B.A., California Baptist College)

Crumley, Richard E., Professor and Chairperson of Biology (B.S., Pittsburg State University, M.S., Emporia State University, D.A., University of Northern Colorado)

Daffron, Jeanne M., Assistant Professor of Nursing (A.S., B.S., Missouri Western State College, M.A., University of Missouri-Kansas City)

Defenbaugh, Sharon, Instructor of Secretarial Science (B.S., M.B.A., Northwest Missouri State University)

Dobbins, Larry L., Professor of Theatre (B.S., M.A., University of Nebraska, Ph.D., University of Iowa)

Downey, Sharon L., Assistant Professor of Secretarial Science (B.S., Western Illinois University, M.S., Northwest Missouri State University)

Dye, David A., Assistant Professor of Lawyers' Assistant (B.A., J.D., University of Missouri-Kansas City)

Edwards, Nancy T., Professor of Education (B.A., Graceland College, M.Ed., University of Missouri-Columbia, Ph.D., University of Missouri-Kansas City)

Eickhorst, William S., Associate Professor of Art (B.F.A., Parsons School of Design, B.A., M.A., Montclair State College, D.Ed., Ball State University)

Erickson, Charles R., Professor and Chairperson of Health, Physical Education, and Recreation (B.S., M.Ed., Texas A&M University, Ed.D., North Texas University)

Esry, Cordelia M., Assistant Professor and Chairperson of Nursing (B.S.N., M.Ed., University of Missouri-Columbia)

Estes, James R., Associate Professor of Art (B.S., Northwest Missouri State University, M.A., Fort Hays State University, M.F.A., Arizona State University)

Evinger, Lee E., Assistant Professor of Biology (B.S., Dickinson College, M.A., Indiana University)

Fagan, Mary C., Instructor of Speech (B.S., University of Bridgeport, M.A., University of Missouri-Columbia)

Fields, Mary J., Assistant Professor of Education (A.A., Missouri Western State College, B.S., Northwest Missouri State University, M.A.Ed., University of Missouri-Kansas City)

Findlay, Walter R., Assistant Professor of Theatre (A.A., Manatee Junior College, B.A., University of South Florida, M.F.A., Florida State University)

Frick, M. Jane, Associate Professor and Chairperson of English (B.S., Drake University, M.A., University of Northern Colorado, Ph.D., University of Missouri-Kansas City)

Galloway, Ruth E., Associate Professor of English (B.A., Nebraska State Teachers College, M.A., West Texas State University, Ph.D., Texas Tech University)

Gilgun, John F., Professor of English (B.A., Boston University, M.A., M.F.A., Ph.D., University of Iowa)

Gilmour, F. Matthew, Professor and Chairperson of Music (B.M., Missouri Valley College, M.M., D.M.A., University of Missouri-Kansas City)

Godfrey, Christopher, Assistant Professor of Mathematical Sciences (B.S., University of Central Arkansas, Ph.D., Iowa State University)

Good, Richard, Instructor of Engineering Technology (B.S., Colorado School of Mines, P.E.)

Grechus, James W., Jr., Assistant Professor of Physical Education (B.S., Kansas State University, M.S., Central Missouri State University)

Greene, Bonnie, Assistant Professor of Physical Education (B.S., University of Arizona, M.A., Arizona State University)

Greenwald, Barry J., Assistant Professor of Business (B.S.B.A., M.S.B.A., University of Denver, C.P.A.)

Greiert, Steven G., Associate Professor of History (B.A., St. Olaf College, M.A., Ph.D., Duke University)

Groh, Sharon L., Assistant Professor of Music (A.A., Missouri Western State College, B.S., Park College, M.M., University of Missouri-Kansas City)

Hanks, Rita B., Assistant Professor of Secretarial Science (B.S.Ed., Missouri Western State College, M.S.Ed., Central Missouri State University)

Hansen, Thomas C., Associate Professor of Education (B.A.Ed., Wayne State University, M.A., Creighton University, Ed.S., University of Alabama, Ed.D., Northwestern State University of Louisiana)

Harmon-Miller, Jean E., Associate Professor of Art (B.A.E., M.F.A., University of Kansas)

Hawley, Lucretia M., Assistant Professor of Business (B.S., B.S.B.A., M.A., Central Missouri State University, C.P.A.)

Haynes, S. Earl, Professor and Chairperson of Education (B.S., M.S., Central Missouri State University, Ed.D., University of Kansas)

Heckel, Achsah M., Assistant Professor of Chemistry (B.S., Kansas State University)

Heim, Michael R., Associate Professor of Humanities (B.A., St. Joseph's College, M.A., Northern Illinois University, Ph.D., Pennsylvania State University)

Hemmann, Joseph H., Assistant Professor of Engineering Technology (B.S., Ph.D., University of Missouri-Rolla)

Hinrichs, Susan M., Assistant Professor of Mathematical Sciences (B.S.B.A., M.A., Spec., Central Missouri State University)

Hoffmann, Rosemary L., Assistant Professor of Modern Languages (B.S., Northwest Missouri State University, M.A., Middlebury College)

Hoover, Michael C., Associate Professor of Sociology (B.A., M.A., Southern Illinois University, Ph.D., University of Tennessee)

Hughes, John T., Associate Professor of Art (B.F.A., Kansas City Art Institute, M.F.A., University of Nebraska-Lincoln)

Huntermark, James M., Assistant Professor of Psychology (B.A., Duquesne University, M.A., Marshall University, Ph.D., University of Arkansas)

Huston, Bill L., Associate Professor of Mathematical Sciences (B.A., Tarkio College, M.A., Duke University)

Johnson, Glen D., Associate Professor of Agriculture (B.S., M.S., Oklahoma State University, Ed.D., University of Arkansas)

Johnson, Lt. Col., Harold L., Professor and Chairperson of Military Science (B.S., University of Southern Colorado, M.B.A. Pepperdine University)

Johnson, Kenneth G., Assistant Professor of Mathematical Sciences (B.S., M.S., University of Missouri-Rolla)

Johnson, Martin A., Professor and Chairperson of Psychology (B.A., University of California, M.A., Ph.D., Brigham Young University)

Johnston, Ernest A., Assistant Professor of Mathematical Sciences (B.S., M.S., University of Kansas)

Keegstra, Vickie R., Assistant Professor of Physical Education (B.A., University of Northern Iowa, M.A., Western Michigan University)

Kessler, Francis P., Professor of Political Science (B.S., M.A., St. Louis University, Ph.D., University of Notre Dame)

Keyser, Robin B., Assistant Professor of Agriculture (B.S., M.S., Virginia Polytechnic Institute and State University, Ph.D., Purdue University)

Khan, Adam, Associate Professor of Agriculture (B.S., Peshawar University, M.S., American University of Beirut, Ph.D., Colorado State University)

Kump, Ferrell Z., Assistant Professor of Education (B.S., Brigham Young University, M.Ed., Ed.D., Utah State University)

Lambing, Larry L., Associate Professor of Chemistry (B.S., M.S., Pittsburg State University, Ph.D., University of Missouri-Kansas City)

Laudie, Drew T., Associate Professor of Recreation (B.S., M.S., Brigham Young University, D.Ed., University of Oregon)

Lee, Kenneth W., Professor of Mathematical Sciences (B.S., Augustana College, M.S., University of Wyoming, D.A., University of Northern Colorado)

Leech, Jonathan E., Associate Professor of Mathematical Sciences (B.A., University of Hawaii, Ph.D., University of California-Los Angeles)

Long, James L., Assistant Professor of Physical Education (B.S., Southwest Missouri State University, M.Ed., University of Missouri-Columbia)

Luchok, Joseph A., Assistant Professor of Speech (B.A., M.A., West Virginia University)

Mack, William G., Assistant Professor of Music and Director of Bands (B.M.E., M.A., Central Missouri State University)

Magoon, Michael L., Assistant Professor of Modern Languages (B.A., Drury College, M.A., University of Missouri-Columbia)

Mahaffy, Donald L., Professor and Chairperson of Mathematical Sciences (B.S., Midwestern State University, M.A., North Texas State University, D.Ed., Oklahoma State University)

Malson, Donald G., Instructor of Physical Education and Assistant Football Coach (B.S., Central Methodist College, M.A., Northeast Missouri State University)

Marion, L. Marvin, Associate Professor of Education (B.A., Carson-Newman College, M.E., University of Tennessee, Ed.D., East Tennessee State University)

Mathews, Michael K., Associate Professor of Music (B.M., M.M., University of Michigan, Ph.D., Michigan State University)

Matthews, George C., Associate Professor of English (B.A., Iona College, M.A., DePaul University, Ph.D., University of Iowa)

Maxwell, LeRoy H., Assistant Professor and Chairperson of Criminal Justice (B.S., Missouri Western State College, M.S., Central Missouri State University)

McCay, Christa T., Associate Professor of English (B.A., Graceland College, M.A., Ph.D., University of Wisconsin)

McLear, Patrick E., Professor of Social Sciences (A.A., The Metropolitan Community Colleges, B.S., Northwest Missouri State University, M.A., University of Missouri-Kansas City, Ph.D., University of Missouri-Columbia)

McMurry, Patrick H., Assistant Professor and Chairperson of Business and Economics (B.S., Southwest Missouri State University, M.A., Central Missouri State University, Ph.D., University of Arkansas)

Mehl, James V., Professor of Humanities (B.S., St. Louis University, M.A., Ph.D., University of Missouri-Columbia)

Miller, Jill Ann, Assistant Professor of Criminal Justice (A.S., B.S., Missouri Western State College, M.S., Central Missouri State University)

Miller, Richard T., Associate Professor of English (B.S., M.A., Northeast Missouri State University)

Miller, Stephen L., Assistant Professor of Social Sciences (B.A., M.A., University of Illinois, Ph.D., Southern Illinois University)

Minnis, Douglas, Assistant Professor of Education and Head Baseball Coach (B.S.Ed., M.S., Emporia State University)

Mitchell, John B., Assistant Professor of Business (B.A., L.L.B., J.D., University of Kansas)

Mullican, Julia, Assistant Professor of Psychology (B.S., University of Cincinnati, M.S., Midwestern University)

Mullins, Carl P., Associate Professor and Chairperson of Speech/Theatre/Humanities (B.A., Vanderbilt University, M.A., M.Div., Pacific School of Religion, Ph.D., Graduate Theological Union)

Nelson, Bernice, Instructor of Business (B.S.B.A., Missouri Western State College, B.S., M.S., Montana State University)

Nelson, Robert J., Professor of Mathematical Sciences (B.S., M.S., Montana State University, Ph.D., Purdue University)

Nelson, Jane M., Associate Professor and Chairperson of Art (B.S., Scripps College, M.F.A., M.A., University of Kansas)

Parmenter, C. Irvin, Assistant Professor of Speech (B.S., M.A., University of Nebraska, Ph.D., University of Colorado)

Pickett, H. Kent, Assistant Professor of Mathematical Sciences (B.S., M.S., University of Missouri-Rolla)

Pilgram, Henry W., Assistant Professor of Social Work (B.A., University of Missouri-Columbia, M.Div., McCormick Theological Seminary, M.S.W., University of Illinois)

Plopper, Bruce L., Assistant Professor of English (B.S., Michigan State University, M.A., Ph.D., Southern Illinois University)

Rachow, Thomas E., Associate Professor of Biology (B.S., University of Iowa, M.S., Ph.D., Southern Illinois University)

Ragland, Tommie L., Professor of Social Sciences (B.S., M.A., Southern Illinois University, Ph.D., St. Louis University)

Rapinchuk, Gloria O., Assistant Professor of English (B.A., University of Northern Iowa, M.A., University of Iowa)

Rehorn, Glen E., Assistant Professor of Automotive Technology (B.S., M.S., Ed.D., Oklahoma State University)

Ripple, Joseph E., Professor of Social Science (B.S., University of Southern California, M.A., University of Northern California, Ph.D., University of Colorado)

Robbins, Donald J., Professor of Biology (B.S., M.S., Pittsburg State University, Ph.D., Kansas State University)

Rogers, Alfred H., Associate Professor of Social Sciences (B.A., M.S., Pittsburg State University, Ph.D., University of Missouri-Columbia)

Rogers, Dennis G., Assistant Professor of Music (B.M., M.M., University of Missouri-Kansas City)

Rogers, Marcia D., Assistant Professor of Secretarial Science (B.S., Texas Woman's University, M.B.Ed., North Texas State University)

Rosenauer, Kenneth L., Assistant Professor of English (B.A., Missouri Western State College, M.A., Southeast Missouri State University)

Ruffino, Arthur S., Associate Professor of Speech (B.S., M.A., Central Missouri State University, Ph.D., Southern Illinois University)

Rushin, John W., Associate Professor of Biology (B.S., M.S., Indiana State University, D.A., Idaho State University)

Saucier, Bonnie, Assistant Professor of Nursing (Diploma, St. Johns Hospital School of Nursing, B.A., Stephens College, M.Ed., University of Missouri-Columbia, M.S.N., University of Missouri-Kansas City)

Latosi-Sawin, Elizabeth, Associate Professor of English (B.A., State University of New York, M.A., Ph.D., University of Iowa)

Schmitz, Leo H., Associate Professor of Mathematical Sciences (B.S., M.Ed., University of Missouri-Columbia, M.A., University of Illinois)

Schwarz, Richard M., Professor and Chairperson of Chemistry (B.S., Northwest Missouri State University, M.A., Ph.D., University of Missouri-Columbia)

Schwenk, Fran H., Instructor of Physical Education and Assistant Football Coach (B.S., M.S., Northwest Missouri State University)

Septon, Michael B., Assistant Professor of Business (B.S.B.A., M.S.B.A., University of Denver)

Shear, Lawrence, Assistant Professor of Physical Education and Head Basketball Coach (B.A., Tarkio College, M.A., Appalachian State University)

Shell, Robert L., Associate Professor of Modern Languages (B.S., Ph.D., University of Illinois)

Shirley, Christina K., Instructor of Agriculture (B.S., Illinois State University, M.S., Texas A&M University)

Shrout, Ethel H., Professor of Business (B.S., Northwest Missouri State University, M.S., University of Missouri-Columbia, Ed.D., Oklahoma State University)

Smith, Russell L., Professor of Chemistry (B.S., Wisconsin State University, Ph.D., University of Iowa)

Sparks, Isabel, Associate Professor of English (B.A., University of Kansas, M.A., University of Missouri-Kansas City, M.Ph., University of Kansas)

Stedelin, Jo Ellen, Instructor of Nursing (B.S., Central Missouri State University)

Steiniche, David V., Professor and Chairperson of Social Sciences (B.A., Grinnell College, M.A., University of Wisconsin, Ph.D., University of Nebraska)

Supalla, Gary J., Instructor of Business (B.S., Northeast Missouri State University, M.B.A., University of Missouri-Columbia)

Tapia, John E., Associate Professor of Speech (B.A., California State University, M.A., University of Massachusetts, Ph.D., University of Arizona)

Terry, James W., Professor of Physical Education (B.S., Tennessee Technological University, M.A., Southwest Texas State University, Ph.D., Texas A&M University)

Thomas, Frank D., Assistant Professor of Music (B.M.E., M.M.E., Wichita State University)

Unzicker, Myron, Instructor of Physical Education and Athletic Trainer (A.A., Parkland Community College, B.S., Northern Illinois University, M.A., Ball State University)

Vargha, Nader, Assistant Professor of Economics (B.S.E.E., M.A., University of Oklahoma)

Varma, Virendra K., Associate Professor and Chairperson of Engineering Technology (B.E., Birla Institute of Technology and Science, M.S., State University of New York-Buffalo, Ph.D., University of Missouri-Columbia, P.E.)

Walton, Andrea, Assistant Professor of Nursing (A.A., Missouri Western State College, B.A., M.A., University of Missouri-Kansas City)

Wann, Phillip D., Associate Professor of Psychology (B.A., University of Missouri-Columbia, M.A., Ph.D., Carleton University)

Weber, Mary M., Instructor of Business (B.S., Central Methodist College, M.B.A., Virginia Polytechnic Institute and State University)

West, SGM. Conley, Jr., Instructor of Military Science (A.A., Columbia University)

Wilkerson, Jerry M., Associate Professor of Mathematical Sciences (B.S., M.S., Central Missouri State University)

Winston, Diana M., Assistant Professor of Education (B.A., University of Missouri-Kansas City, M.S., Northwest Missouri State University)

Wright, MAJ Burton, III, Instructor of Military Science (B.A., Creighton University, M.A., Ph.D., Florida State University)

Yates, Jane B., Instructor of Business (A.A., Ottumwa Heights College, B.S.P.A., M.B.A., University of Missouri-Columbia)

Yeager, Richard F., Assistant Professor of Music (B.M., Youngstown State University, M.M., University of Cincinnati)

Zweerink, Gerald L., Professor of Chemistry (B.A., Southwest Missouri State University, Ph.D., University of Missouri-Rolla)

Professors Emeriti

Agenstein, Evan R., Professor Emeritus of Physics and Mathematics

Doherty, Mary Lee, Professor Emerita of English

Donnelly, Vernon, Professor Emeritus of Engineering Technology

Flanagan, Frances, Professor Emerita of English

Force, Harry F., Professor Emeritus of Biology

Galloway, Leo, Professor Emeritus of Biology

Gettys, Helen, Professor Emerita of Education

Harvey, Marian V., Professor Emerita of Social Sciences

Jordan, James R., Professor Emeritus of Social Sciences

Lacy, Louise, Professor Emerita of Humanities and Communications

Marion, Glenn E., Professor Emeritus of Engineering Technology

McCann, Willis, Professor Emeritus of Psychology

Mitchell, Marian, Professor Emerita of Business

Phelan, Elizabeth J., Professor Emerita of Social Sciences

Popplewell, Frank S., Professor Emeritus of Social Sciences

Price, Thomas, Professor Emeritus of Music

Reimer, Roberta, Professor Emerita of Music

Roberts, Raymond, Professor Emeritus of Education

Taylor, Richard, Professor Emeritus of English

Tomlinson, Veva, Professor Emerita of English

Adjunct Faculty

Cooper, Jean E., Assistant Professor of Medical Technology (B.S., Central Missouri State University, M.P.A., University of Missouri-Kansas City)

Flynn, James M., Assistant Professor of Medical Technology (B.A., M.D., State University of Iowa)

Fritzlen, Thomas J., Assistant Professor of Medical Technology (B.A., M.D., University of Kansas)

Gansert, Doris, Assistant Professor of Medical Technology (B.A., Grinnell College, M.T., Kansas City General Hospital)

Heckman, Mary E., Assistant Professor of Medical Technology (B.A., University of Missouri-Kansas City, M.A., Ph.D., University of Kansas)

Hill, Jack H., Assistant Professor of Medical Technology (M.D., M.A., University of Kansas)

Jacobs, Davis S., Assistant Professor of Medical Technology (B.A., M.D., University of Michigan)

McPhee, William R., Assistant Professor of Medical Technology (M.D., University of Kansas)

Smith, Othello D., Assistant Professor of Medical Technology (B.A., M.D., University of Kansas)

Smith, Thirsa M., Assistant Professor of Medical Technology (B.S., University of Missouri-Kansas City)

Sullivan, Eugenia L., Assistant Professor of Medical Technology (B.A., M.S.Ed., University of Kansas)

Ward, Jo Anne, Assistant Professor of Medical Technology (B.S., Central Missouri State University, A.S.C.P., Baptist Memorial Hospital-Kansas City)

Index

- Academic
advisement, 28
calendar, inside front cover
policies and regulations, 34
programs, 49
standards, table of, 39, 40
- Access to campus, inside back cover
- Accounting, 58, 59
- Activities, student, 32
- ACT test schedule, 14
- Administrative staff, 154, 155
- Admission, 11
college transfer, 11
first time in college, 11
foreign student, 11
high school student, 12
special student, 12
readmission, 37
- Advisement
academic, 28
counseling, 28
- Agri-business technology, 53
- Agricultural economics, 52
- Agricultural production technology, 52
- Agriculture, 52
general, 52
- Agronomy, 52
- Alumni Association, 31
- Animal science, 52
- Application
admission, 11
financial aid, 18
- Architecture transfer program, 71
- Art, 108
- Associate degree
programs, 44
requirements, general, 44
- Athletic coaching, certification in, 96
- Athletics, 32
- Attendance, class, 34
- Auditors, 34
- Automotive technology, 55
- Baccalaureate degree
programs, 45
requirements, general, 41
- Bachelor of Arts, 45
- Bachelor of Science, 45
- Bachelor of Science in Business
Administration, 45
- Bachelor of Science in Education, 45
- Bachelor of Science in Technology, 45
- Bachelor of Science in Technology "Two Plus
Two," 45, 46
- Bachelor of Social Work, 46
- Banking and finance, 61
- Biology, 111
- Board of Regents, 153
- Bookstore, 30
- Business and economics, 58
- Business education, 60
- Calendar, academic, inside front cover
- Campus
access to, inside back cover
map, inside back cover
- Career Programs, Division of, 50
- Certificate programs, one-year, 44
- Certification in athletic coaching, 96
- Chemistry, 115
- Class
attendance, 34
auditors, 34
- Student Union, 29
- College, the, 5, 7
goals, 7
map, inside back cover
- Commencement, 41
- Communications, 119
- Computer science, 127
- Conduct, student, 29
- Construction engineering technology, 72
- Continuing Education, Office of, 149
- Corrections, 68
- Cost, estimated, 18
- Counseling, 28
- Course
abbreviations, 152
description of, 38
loads, 34
numbering system, 35
repeating, 37
- Credit
by examination, 12
nonresident, 15
nontraditional, 12
units, 38
- Criminal justice, 68
- Data processing, 61, 127
- Degree programs, 44
- Disabilities, students with, 28
- Dormitory
fees, 16
housing, 29
- Dramatics, 32
- Earth science, 114
- Economics, 58
- Education, 86
elementary, 88
secondary, 93
- Education and Psychology, Division of, 85
- Electronic engineering technology, 72
- Engineering technology, 71
- Engineering transfer program, 71
- English
and modern languages, 119
honors, 15
literature, 119
- Evening and Saturday program, 150
- Faculty, 156
- Fees
payment of, 17
refund of, 17
schedule of, 16
- Financial aid, 18
application procedure, 18
awarding of, 19
fee waivers, 20, 21
scholarships, 23, 24, 25, 26, 27
student aid programs, 19
- Foreign language, teacher certification in, 121
- Foundation, 31
- French, 121
- General electives, 84
- General information, 9
- General studies program
four-year, 46
two-year, 44
- Geography, 139
- German, 121
- Goals of the college, 7
- Government, student, 32
- Grade-point averages, 42
- Grades
system of, 35
incomplete, 36
- Graduate honors, 36
- Graduation, 41
- Health education, 96
- Health, physical education, and recreation, 95
- Health center, student, 30
- High school students, admission of, 12
- History, 138
- Honors
English, 15
graduate, 41
lists, 36
- Housing, 29
fees, 16
- Humanities, 144
- Incomplete grades, 36
- Information, general, 9
- Instrumental music, 131
- Intramurals, 32
- Journalism, 121
- Lawyers' assistant, 76
- Leisure management, 96
- Liberal Arts and Sciences, Division of, 107
- Library, 30
- Library science, 92
- Majors
declaring a major, 29, 35
major-minor applications, 42
- Management, 59
- Map, campus, inside back cover
- Marketing, 59
- Mathematical sciences, 126
- Mathematics, 126
- Medical technology, 115
- Mid-management, 61
- Military science, 78
- Multiple degrees, 42
- Music, 131
- Musical groups, 32
- Natural science
biology emphasis, 111
chemistry emphasis, 116
- Nonresident credit, 15
- Nontraditional credit, 12
- Nursing, 80
- Organizations, student, 33
- Physical science, 118
- Physics, 127
- Pilot training, 82
- Placement and off-campus services, 30
- Policies and regulations, academic, 34
- Political science, 138
- Probation, scholastic, 38
- Psychology, 103
- Readmission, 37
- Records of academic work and transcripts, 37
- Refunds, 17
- Registration, 16
- Regulations, academic, and policies, 34
- Requirements
associate degree, 40
baccalaureate degree, 40
graduation, 40
- Residence, 16
- Retailing, 61
- ROTC, 78

Schedule, change of, 34
Secretarial science, 83
Semester designation, 38
Social life, 32
Social sciences, 138
Social work, 139
Sociology, 138
Spanish, 121
Special student, 12
Speech communication, 144
Speech, theatre, and humanities, 144
Standards, table of academic, 39
State legislation requirement, 43
Student
 affairs, 28
 aid programs, 19
 conduct, 29
 government, 32
 organizations, 33
Summer session, 150
Suspension, scholastic, 38

Testing, 28
Theatre, 144
Transcripts, 37
Transfer programs, 47
"Two Plus Two" program, 45, 46

Units, credit, 38

Veterans, 17
Vocal music, 131

Withdrawal
 from college, 38
 from courses, *see* Schedule, change of
Women's studies, 148
Writing, 120



Quick Index

Academic Calendar	Inside Front Cover
Academic Policies	34
Academic Programs	49
Admission	11
Career Programs	50
Agriculture, Automotive Technology, Business & Economics, Criminal Justice, Engineering Technology, Lawyers' Assistant, Military Science, Nursing, Pilot Training, and Secretarial Science	
Education	86
Health, P.E., & Recreation	95
Liberal Arts and Sciences	107
Art, Biology, Chemistry, English & Modern Languages, Mathematical Sciences, Music, Social Sciences, Speech, Theatre & Humanities, and Women's Studies	
Psychology	103

4525 Downs Dr., St. Joseph, MO 64507