

# UMSL Bulletin



Undergraduate  
Graduate  
Professional  
Catalogue



# UMSL Bulletin

## Undergraduate Graduate Professional Catalogue 1985-86

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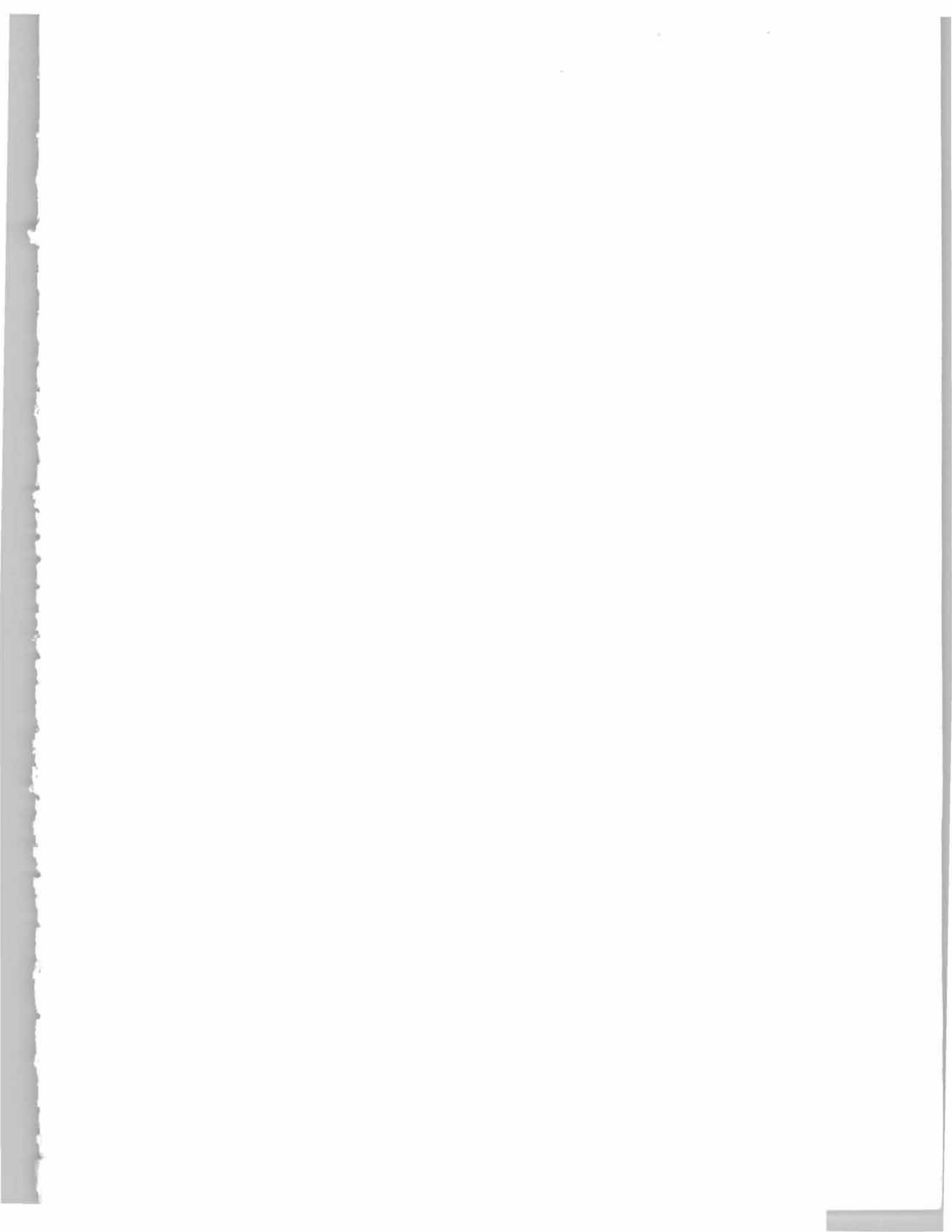
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		<b>Instructional Areas</b>		public administration
		Many departments offer courses in several subject areas. The following list is provided for easy student reference.		public law
				radio and television
				reserve officers training corps
				Russian
				secondary education
				Spanish
				special education
				speech communication
				social work
				sociology
				theatre
				urban politics
				women's studies
				writing



## Preface

This *Bulletin* includes a description of undergraduate and graduate programs at the University of Missouri-St. Louis. All statements in this publication concerning regulations, fees, curricula, or other matters are subject to change without notice. They are not to be regarded as offers to contract.

On July 23, 1978, the North Central Association voted full accreditation to the University of Missouri-St. Louis for a ten-year period at the baccalaureate, masters, and doctoral levels.

The policies of the University of Missouri-St. Louis comply with the provisions under those laws which forbid discrimination on the basis of race, color, sex, national origin, religion, age, handicap, or veteran status in any program or activity of the University.

Demographic data is obtained by the University in order to determine the effect of efforts related to the provision of equal educational opportunity. Completion of this information is optional.

For the benefit of prospective students, academic departments generally maintain current employment information including average starting salary, forecast of job opportunities, number of students being graduated, and number employed. Students may contact their major department for the latest information available.

While students should study current employment data, these points should also be considered: 1) Employment conditions are subject to sudden change, and may change considerably over a four-year period. 2) A student who excels is most likely to find employment. 3) A degree from a quality institution generally provides a competitive edge in the job market. 4) A degree offers more than a job opportunity.

Information regarding the provision of auxiliary aids and services to qualified disabled students can be found on page 38 of this *UMSL Bulletin*. Students considering such assistance should contact the Coordinator for Disabled Students, at 553-5211, for further details.

Address inquiries regarding admission to all divisions of the University of Missouri-St. Louis to the Director of Admissions, University of Missouri-St. Louis, 8001 Natural Bridge Road, St. Louis, Missouri 63121.

For information concerning the University of Missouri-Columbia, the University of Missouri-Rolla, or the University of Missouri-Kansas City, write directly to the Director of Admissions at the campus concerned.

## Course Descriptions and Guide to Course Lists

Course numbers and titles are listed in this volume as part of the requirements for the various degree programs. For more detailed information on a particular course, including prerequisites, credit hours, or content, the student must consult the companion volume to this *UMSL Bulletin*, the *Description of Courses*.

### Course Numbering

Each course bears a distinguishing number which identifies it within the department or academic unit and indicates, broadly, its rank. The numbering system is as follows:

**0 to 099**, nondegree credit

**1 to 99**, primarily for freshmen and sophomores.

**100 to 199**, primarily for upperclassmen, no graduate credit.

**200 to 299**, for undergraduates and appropriate professional and graduate students, except those whose graduate majors are in the department in which the course is given.

**300 to 399**, for undergraduate, appropriate professional, and graduate students without restriction as to students' graduate majors.

**400 to 499**, primarily for graduate and appropriate professional students in special programs; upperclass students are admitted to courses in this series only with the approval of the graduate dean.

**500 to 599**, for professional optometry students. Other students are admitted to courses in this series only with the approval of the Optometry Dean.

### General Education Requirement Courses

Courses which fulfill the University's general education requirements, as outlined in the Academic Policy section of this *Bulletin*, are listed at the beginning of each departmental course section in the *Description of Courses*, a companion booklet to this catalogue.

Each list of course numbers also is identified by one of the following breadth of study areas:

**[H]** Humanities requirement

**[SM]** Natural sciences and mathematics requirement

**[SS]** Social sciences requirement

### Eye Protection Law

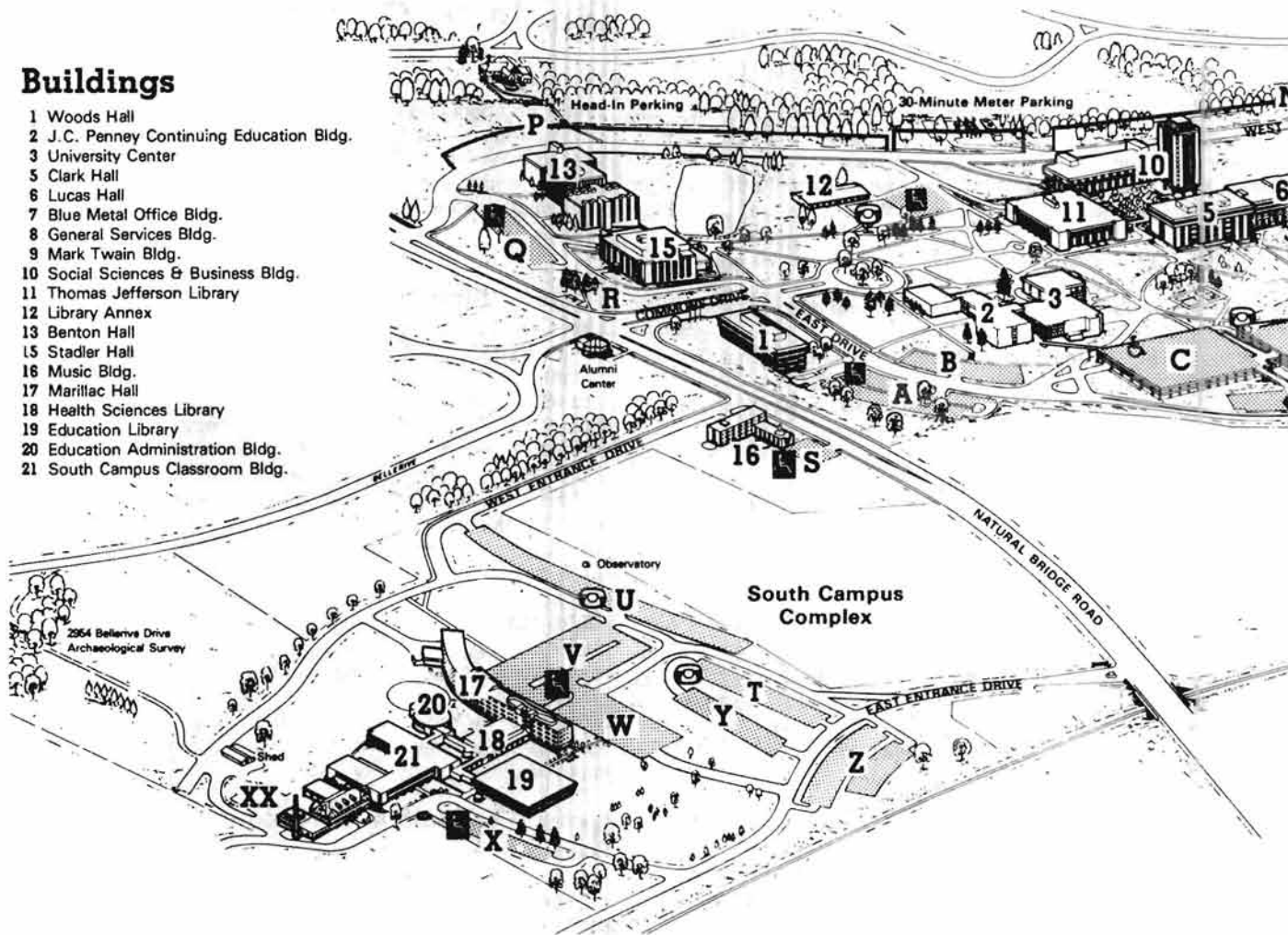
It is now a law in the state of Missouri that every student, teacher, and visitor must wear approved eye protection devices when participating in or observing certain university courses. Definitely included in this act, which is posted along with University policy in selected buildings on this campus, are courses requiring chemical, physical, combined chemical-physical laboratories and shops, as well as certain vocational, technical, and industrial arts courses. Consult your instructors for exact requirements. Approved safety glasses and goggles must meet ANSI Standard Z87.1-1968 and are available from the UMSL Bookstore.



# Campus Map

## Buildings

- 1 Woods Hall
- 2 J.C. Penney Continuing Education Bldg.
- 3 University Center
- 5 Clark Hall
- 6 Lucas Hall
- 7 Blue Metal Office Bldg.
- 8 General Services Bldg.
- 9 Mark Twain Bldg.
- 10 Social Sciences & Business Bldg.
- 11 Thomas Jefferson Library
- 12 Library Annex
- 13 Benton Hall
- 15 Stadler Hall
- 16 Music Bldg.
- 17 Marillac Hall
- 18 Health Sciences Library
- 19 Education Library
- 20 Education Administration Bldg.
- 21 South Campus Classroom Bldg.



## University Programs and Offices

**Academic Affairs, Vice Chancellor for,**  
401 Woods, 553-5371

**Administration, Foundations, and  
Secondary Education Department,**  
269 Marillac Hall, 553-5944

**Administration of Justice Department,**  
598 Lucas, 553-5031

**Administrative Services, Vice  
Chancellor for,** 414 Woods, 553-6100

**Admissions and Records,** 101 Woods,  
553-5451

**Affirmative Action Office,** 401 Woods,  
553-5695

**Alumni Office,** 426 Woods, 553-5441

**Anthropology Department,** 607 Tower,  
553-6020

**Art Department,** 506 Lucas, 553-5975

**Arts and Sciences, College of,** 305  
Lucas, 553-5501, Academic Advising, 303  
Lucas, 553-5300

**Athletics Office,** 225 Mark Twain,  
553-5641

**Behavioral Studies Department,** 469  
Marillac Hall, 553-5782

**Biology Department,** 326 Stadler,  
553-6200

**Bookstore,** 50 University Center, 553-5763

**Business Administration, School of,** 487  
SSB Bldg., 553-5881

**Cable TV Studio,** 116 Lucas, 553-5175

**Cafeteria, "Underground,"** U. Center

**Cafeteria, South Campus Complex,**  
Marillac Hall, Level 1

**Career Planning and Placement,** 308  
Woods, 553-5111

**Cashier's Office,** 206 Woods, 553-5151

**Center for Academic Development  
(CAD),** 506 Tower, 553-5194

**Chancellor's Office,** 401 Woods, 553-5252

**Chemistry Department,** 324 Benton,  
553-5311

**Child Care Center,** 143 South Campus  
Classroom Bldg., 553-5658

**Childhood Education Department,** 369  
Marillac Hall, 553-5791

**Computing and Telecommunications,  
Office of,** 103 SSB Bldg., 553-6000

**Continuing Education-Extension, Office  
of,** 201 J.C. Penney; **Credit Courses,**

553-5655; **Non-Credit Courses,** 553-5961

**Counseling,** 427 SSB Bldg., 553-5711

**Disabled, Minority and International  
Students,** 301 Woods, 553-5211

**Economics Department,** 408 SSB Bldg.,  
553-5351

**Education, School of,** 201 Education  
Administration Bldg., 553-5106

**English Department,** 494 Lucas, 553-5541

**Evening College,** 324 Lucas, 553-5161

**Financial Aid,** 209 Woods, 553-5527

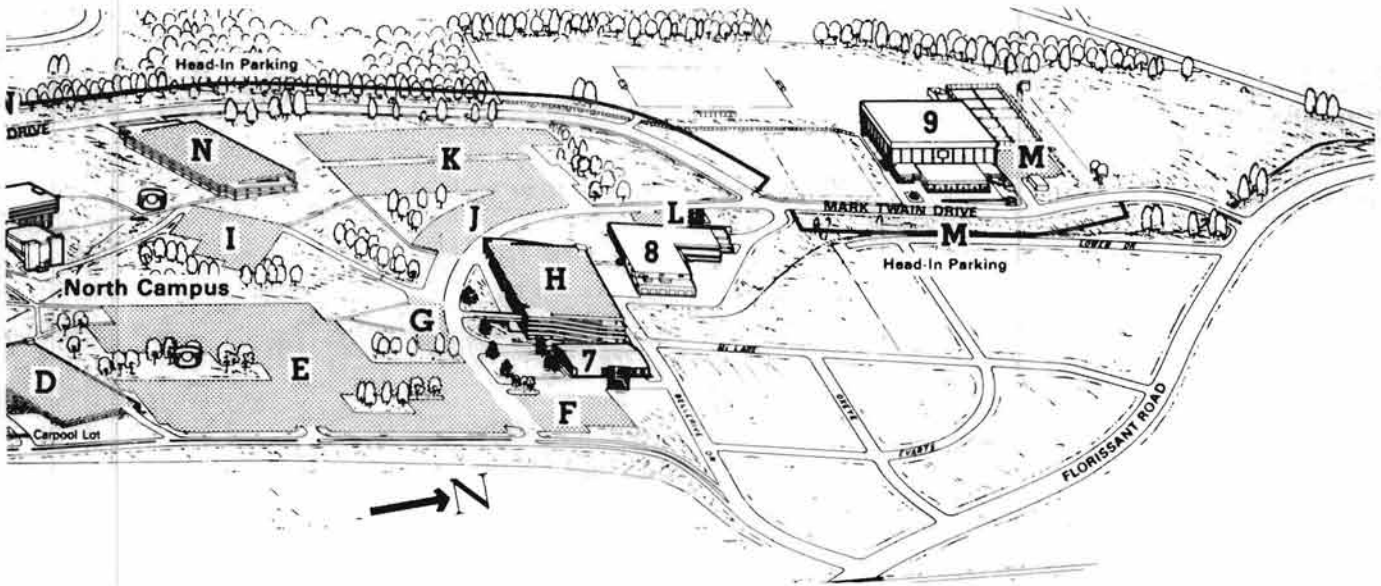
**Gallery 210,** 210 Lucas, 553-5976

**Graduate School,** 338 Woods, 553-5900

**Health Center,** 127 Woods, 553-5671

**History Department,** 484 Lucas, 553-5681

**Information Desk,** University Center,  
553-5148



### Parking Facilities

- |   |  |
|---|--|
| <p><b>A</b> Fac/Staff; Visitors; Handicapped; Official Vehicles; Service Vehicles<br/> <b>B</b> Fac/Staff Intralot; Visitors<br/> <b>C</b> Level 1-Fac/Staff; Visitors; Cycles<br/>                 Level 2-Students; Special Carpool<br/>                 Level 3-Cont. Educ. Extension; Students; Handicapped (West Side)<br/> <b>D</b> All Levels-Students<br/> <b>E</b> Students<br/> <b>F</b> Fac/Staff; Visitors; Handicapped; Students<br/> <b>G</b> Students<br/> <b>H</b> Level 3-Fac/Staff (North sec.); Students<br/>                 Level 2, 4, &amp; 5-Students<br/>                 Level 1-Fac/Staff; Maintenance<br/> <b>I</b> Students<br/> <b>J</b> Students<br/> <b>K</b> Daily Parking for Non-Permit Vehicles<br/> <b>L</b> Visitors; Service Vehicles; Handicapped</p> | <p><b>M</b> Fac/Staff; Visitors; Students; Handicapped; Service Vehicles<br/> <b>N</b> Head-In Parking (West Campus Road); Fac/Staff; Students; Visitors; Service Vehicles<br/>                 Garage: Level 1-Fac/Staff; Levels 2 &amp; 3-Students<br/> <b>P</b> Fac/Staff; Visitors; Service Vehicles; Fac/Staff-Cycles<br/> <b>Q</b> Fac/Staff; Handicapped<br/> <b>R</b> Visitors; Service Vehicles<br/> <b>S</b> Fac/Staff; Students; Visitors; Handicapped<br/> <b>T</b> Students<br/> <b>U</b> Students; Cycles<br/> <b>V</b> Fac/Staff; Optometry Clinic; Students; Handicapped<br/> <b>W</b> Visitors; Fac/Staff<br/> <b>X</b> Fac/Staff; Visitors; Handicapped<br/> <b>XX</b> Fac/Staff<br/> <b>Y</b> Students<br/> <b>Z</b> Students</p> |
|---|--|

**International Studies, Center for**, 366 SSB Bldg., 553-5753  
**KWMU FM-91 Radio**, 105 Lucas, 553-5968  
**Libraries**: Thomas Jefferson, 553-5050; Education Library, 553-5571; Health Sciences Library, 553-5110  
**Mathematical Sciences Department**, 500 Clark, 553-5741  
**Metropolitan Studies, Center for**, 362 SSB Bldg., 553-5273  
**Modern Foreign Languages and Literatures Department**, 554 Clark, 553-6240  
**Music Department**, 589 Music Bldg., 553-5980  
**Nursing, School of**, 119 South Campus Classroom Bldg., 553-6071  
**Optometry, School of**, 331 Marillac Hall, 553-5606; Academic Advising, 330 Marillac Hall, 553-6263  
**Peer Counseling**, 413C SSB Bldg., 553-5730  
**Personnel**, 211 General Services Bldg., 553-5804

**Philosophy Department**, 599 Lucas, 553-5631  
**Physical Education Department**, 225 Mark Twain, 553-5226  
**Physical Plant**, 234 General Services Bldg., 553-6300  
**Physics Department**, 517 Benton, 553-5931  
**Police**, 222 General Services Bldg., 553-5155  
**Political Science Department**, 807 Tower, 553-5521  
**Printing Services**, 261 General Services Bldg., 553-5233  
**Psychology Department**, 224 Stadler, 553-5391  
**Publications/Graphic Services**, 252 General Services Bldg., 553-5167  
**Public Information**, 421 Woods, 553-5663  
**Public Policy Administration**, 406 Tower, 553-5145  
**Records and Transcripts**, 118 Woods, 553-5676

**Registrar's Office**, 101 Woods, 553-5454  
**Registration**, 232 Woods, 553-5545  
**ROTC**, 44 Blue Metal Office Bldg., 5176  
**Social Work Department**, 589 Lucas, 553-6385  
**Sociology Department**, 707 Tower, 553-6365  
**Speech Communication Department**, 590 Lucas, 553-5485  
**Sports Information**, 225 Mark Twain, 553-5121  
**Student Affairs, Vice Chancellor for**, 301 Woods, 553-5211  
**Tutorial Services**, 513 Tower, 553-5650  
**UMR Engineering Center**, 35 Metal Ofc. Bldg., 553-5431  
**Undergraduate Studies in Education, Office of**, 155 Marillac Hall, 553-5937  
**University Center**, 267 U.Center, 553-5291  
**University Relations, Vice Chancellor for**, 426 Woods, 553-5778  
**Women's Studies**, 558 Lucas, 553-5881

## Administration

### University of Missouri

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Doug Russell, President, Lebanon, Missouri  
Tom K. Smith, Jr., St. Louis, Missouri

##### Terms Expire January 1, 1989

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Jeanne Epple, Columbia, Missouri  
John P. Lichtenegger, Jackson, Missouri

##### Terms Expire January 1, 1990

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Edwin S. Turner, Chillicothe, Missouri  
William G. Cocos, Jr., St. Louis, Missouri\*  
\*Term expired; serving until replaced.

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George A. Russell, University of Missouri-Kansas City  
Barbara S. Uehling, University of Missouri-Columbia

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Costa Haddad, B.A., Assistant to the Dean

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Sarapage McCorkle, M.A., Director, Center for Economic Education  
Everette Nance, Ed.D., Director, Midwest Community Education Development Center  
Kay Severson, B.A., Director, Continuing Education for Nurses

# Administration

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 Andrew D. Glassberg, Ph.D., Director, Public Policy Administration Program  
 Donald Phares, Ph.D., Director, Center for Metropolitan Studies  
 Lawrence W. Westermeyer, M.S., Office of Computing and Telecommunication

## Graduate Council 1985-86:

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 Garry Burger, Psychology  
 William Connett, Mathematics  
 David Conway, Philosophy  
 Dennis Dossett, Business  
 Charles Fazzaro, Education  
 Andrew Glassberg, Political Science  
 Ruth Jenkins, Nursing  
 Charles Korr, History  
 Charles Kuehl, Business  
 William Long, Optometry  
 Leonard Ott, Music  
 Thomas Schnell, Education  
 Alan Schwartz, Mathematics  
 Stephen Selesnick, Mathematics

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## School of Optometry

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 Linda Trick, O.D., Assistant Director of Clinics  
 Carol K. Peck, Ph.D., Director of Research

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## Center for Academic Development

Howard Benoist, Ph.D., Director

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 John David Phillippe, Assistant Vice Chancellor  
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 William G. Karabas, B.S., Director of University Police  
 Bill Moody, M.S., Director, Fiscal Operations  
 Herman Nebel, B.S., Director, Purchasing  
 Richard Sokolik, M.B.A., Director of Personnel

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 Charles G. Smith, M.A., Director, Athletics  
 Robert Schmalfeld, M.A., Director, University Center/Student Activities  
 Robert Carr, Ed.D., Director, Counseling Services  
 Joseph H. Palmer, M.S. in C., Director, Career Planning and Placement Services

## University Relations

Blair K. Farrell, B.A., Vice Chancellor  
 Dennis Verity, Ph.D., Director, Development



## Academic Calendar

### 1985 Winter Semester

#### January

- 7 Monday, Regular Registration for Day Students
- 8, 9 Tuesday, Wednesday, Evening College and Graduate School Registration
- 14 Monday, Classwork Begins 8 am

#### March

- 22 Friday, Spring Recess Begins: Close of Day

#### April

- 1 Monday, Classwork Resumes: 8 am

#### May

- 1, 2 Wednesday, Thursday, Intensive Study Days (No Classes Held; No Exams Scheduled)
- 3 Friday, Final Examinations Begin
- 10 Friday, Second Semester Ends: Close of Day
- 12 Sunday, Annual Commencement

### 1985 Four-Week Intersession

#### May

- 13 Monday, Registration
- 14 Tuesday, Classwork Begins: 8 am
- 27 Monday, Memorial Day Holiday

#### June

- 7 Friday, Intersession Ends: Close of Day

### 1985 Eight-Week Summer Session

#### June

- 5, 6 Wednesday, Thursday, Evening College and Graduate School Registration
- 7 Friday, Regular Registration for Day Students
- 10 Monday, Classwork Begins: 5 pm

#### July

- 4 Thursday, Independence Day Holiday
- 31 Wednesday, Final Examinations

#### August

- 1 Thursday, Final Examinations  
Summer Session Ends: Close of Day
- 4 Sunday, Summer Commencement

### 1985 Fall Semester

#### August

- 15, 16 Thursday, Friday, Regular Registration for Day Students
- 19, 20 Monday, Tuesday, Evening College and Graduate School Registration
- 26 Monday, Classwork Begins: 8 am

#### September

- 2 Monday, Labor Day Holiday

#### November

- 27 Wednesday, Thanksgiving Holiday Begins: 11 pm

#### December

- 2 Monday, Classwork Resumes: 8 am
- 6 Friday, Classes End: 11 pm
- 9, 10 Monday, Tuesday, Intensive Study Days (No Classes Held; No Exams Scheduled)
- 11 Wednesday, Final Examinations Begin
- 18 Wednesday, First Semester Ends: Close of Day

#### 1986

#### January

- 5 Sunday, Mid-Year Commencement

### 1986 Winter Semester

#### January

- 6 Monday, Regular Registration for Day Students
- 7, 8, Tuesday, Wednesday, Evening College and Graduate School Registration
- 13 Monday, Classwork Begins: 8 am

#### March

- 21 Friday, Spring Recess Begins: Close of Day
- 31 Monday, Classwork Resumes: 8 am

#### April

- 29 Tuesday, Classes End: 11 pm
- 30 Wednesday, Intensive Study Day (No Classes Held; No Exams Scheduled)

#### May

- 1 Thursday, Intensive Study Day
- 2 Friday, Final Examinations Begin
- 9 Friday, Second Semester Ends: Close of Day
- 11 Sunday, Annual Commencement

## Academic Calendar

### 1986 Four Week Intersession

#### May

- 12 Monday, Registration
- 13 Tuesday, Classwork Begins: 8 am
- 26 Monday, Memorial Day Holiday

#### June

- 6 Friday, Intersession Ends: Close of Day

### 1986 Eight Week Intersession

#### June

- 4, 5 Wednesday, Thursday, Evening College and Graduate School Registration
- 6 Friday, Regular Registration for Day Students
- 9 Monday, Classwork Begins: 8 am

#### July

- 3 Thursday, Independence Day Holiday
- 30, 31 Wednesday, Thursday, Final Exams
- 31 Thursday, Summer Session Ends: Close of Day

#### August

- 3 Sunday, Summer Commencement

### Other Holidays

The attention of the faculty is called to the respective religious and other holidays that a substantial number of students may wish to observe. The faculty is encouraged to avoid scheduling examinations on days such as:

#### 1985

- January 15 Dr. Martin Luther King, Jr.'s Birthday
- April 5 Good Friday
- April 6 Passover
- September 16 Rosh Hashana
- September 25 Yom Kippur

#### 1986

- January 15 Dr. Martin Luther King, Jr.'s Birthday
- March 28 Good Friday
- April 26 Passover
- October 4 Rosh Hashana
- October 13 Yom Kippur

## Introduction to UMSL

### The University: Twenty Years

The University of Missouri-St. Louis is one of four campuses that now constitute the University of Missouri, the ninth-largest university in the United States. Founded in 1839 as the first state university in the Louisiana Purchase, the University of Missouri-Columbia became the nucleus for what is now a statewide university.

In the 1960s, a movement began across the country that marked the most significant change in higher education in the twentieth century. That movement was toward the creation of public universities located within metropolitan centers.

The University of Missouri-St. Louis is a product of that movement. UMSL, the fourth campus of the University of Missouri, was established in 1963 as a bold experiment in urban higher education. The notion of a major public institution serving the St. Louis area has evolved from a dream to a solid reality that today exceeds the expectations of those who created it.

Since the doors of the Old Administration Building opened 21 years ago, UMSL has become the largest university serving St. Louisans and the third largest university in the state.

UMSL has grown from a faculty of 30 in 1963 to more than 600 faculty committed to the future of the St. Louis area through teaching, research, and service.

One of the keys to UMSL's development as a quality institution has been the careful selection of faculty over the years. UMSL has attracted some of the top authorities in many fields. In general, UMSL faculty members are younger than their counterparts at older, established institutions: About 76 percent of the full-time faculty hold doctoral degrees, a figure that far exceeds the national average. These professionals develop new theories and new procedures. They attract hundreds of thousands of dollars each year in research funding.

Student enrollment has grown from 600 in 1963 to over 11,000 in 1984. The numbers have changed, but not the spirit. Still paramount in the minds of faculty and students is the preparation of new talent to contribute to the social, intellectual, and economic health of Missouri's largest metropolitan area.

From its beginnings on a former country club's grounds, with a single building converted to classrooms and offices, UMSL has grown to a large modern campus of some 21 buildings on 177 acres, offering complete services for all the activities of a full university experience.

UMSL's curriculum has grown to include 39 undergraduate programs, 19 master's programs, 6 preprofessional programs, and four doctoral programs. There are programs which answer the particular needs of students returning to school after long "vacations"; of students pursuing pre-law, pre-medicine, pre-pharmacy, pre-engineering, or pre-journalism courses; of students interested in urban careers; and of those

who need special help in tackling university-level work. There are also opportunities for students to combine their academic course work with internships which often lead to job offers.

### The University: Academic Structure

The academic structure of the University consists of the College of Arts and Sciences, School of Business Administration, School of Education, Evening College, Graduate School, School of Nursing, and School of Optometry.

The **College of Arts and Sciences**, the largest of the divisions, includes 18 academic departments that combine the best features of two different educational worlds. One world provides students, through general educational offerings, opportunities to acquire a breadth of knowledge and a grounding in the basic skills of intellectual inquiry. The other world supplies the basic preparation for students' vocational lives by providing learning experiences through which students can prepare for careers in specialized fields.

The **School of Business Administration** strives to maintain a balance between the specialization of professional courses and the diversity of liberal arts. Besides training students as qualified professionals for the business world, the School of Business Administration endeavors, through its bachelor's degree and master's degree programs, to expand student capacities in communication, analysis, judgment and ability to relate to today's complex environment.

The **School of Education** acts on the premise that developing and maintaining a quality educational setting in an urban area necessitates both advancing the field of education and meeting changing societal needs. It is committed to the university concept of quality in research, excellence in teaching, and the extension of these research and teaching capabilities through a service commitment to the community. The school meets these commitments through its undergraduate and graduate teacher-education offerings and related activities both on campus and in the field.

The **Evening College** was established in response to a clear need for quality education for those who cannot attend classes during the day. For those interested in traditional university study, the Evening College offers most of the degree programs available to day students and makes sure these programs conform to the same standards and requirements as their daytime counterparts. For those seeking innovative approaches to education, the Evening College has the Bachelor of General Studies (BGS) Program, a unique concept designed for mature students who need more flexibility in reaching their educational goals. BGS students choose courses from the UMSL curriculum that they view as important to their education; thus the students' program structures vary according to their needs. All campus services are open to Evening College students, ensuring that students who attend class at night have the same opportunities as day students for a full university experience.

## Introduction to UMSL

Programs offered in the UMSL Graduate School fall into two categories: professional programs designed to develop a special competence in a particular field; and academic programs designed to develop the student's command of a range of related subjects within a field. Graduate programs are carefully structured to respond to the needs of the metropolitan area and to provide students with the knowledge necessary to relate effectively in a complex modern world.

The **School of Optometry**, opened in the fall of 1980, is dedicated to supplying quality educational and clinical experience for its students. Furnished with the newest equipment for teaching and research, the school operates two clinics that offer a full range of diagnostic services to its patients, as well as professional clinical experience for optometry students.

The **School of Nursing** is the newest addition to UMSL. Housed on the South Campus Complex, the School is committed to the goal of providing an innovative upper-division nursing program specifically designed for the registered nurse.

### **The University: Student Life**

UMSL is not all work. There is a wealth of leisure-time activities, most either free or available at reduced cost to students. Over 90 student organizations, from the Accounting Club to Zeta Tau Alpha Sorority, seek members—and leaders. Interesting speakers, concerts, film series, mixers, exhibits, recitals and a host of informal gatherings crowd each week's schedule. And, if that's not enough, the St. Louis area offers still more recreational, sports, and cultural events.

For those interested in athletics, either as player or spectator, the University offers a wide range of varsity or intramural sports. On the varsity level, the UMSL Rivermen and Riverwomen compete in most major sports with great success. UMSL teams have won a national title in soccer and participated in several national basketball and baseball tournaments. The expanding women's program includes varsity competition in basketball, soccer, softball, volleyball, swimming and tennis. For those who prefer individual physical activity at their own pace, UMSL's Mark Twain complex offers swimming, weight and exercise rooms, basketball and volleyball, handball and racquetball courts. Outdoor facilities include tennis, basketball, handball courts, and baseball fields.

### **The University: Its Graduates**

The result of this total university experience is over 26,000 St. Louisans holding degrees from UMSL. Our alums have a fine reputation in St. Louis. Most are still young, with challenging careers ahead of them. They work in widely diversified fields and for large and small corporations; they serve in various levels of both government and education; and they contribute in almost every profession throughout the metropolitan area.

Each year, St. Louis employers hire more graduates from UMSL than from any other university. And because more than 80 percent of UMSL's graduates stay in St. Louis, alumni impact and influence continue to grow.

These graduates represent a new kind of university—the public urban university.



## Undergraduate Study

**This section includes admission, general education degree requirements, and academic policies for students seeking undergraduate degrees from UMSL.**

### Admission and Application Procedure

#### Admission for First-Time Freshmen

Selection of students for regular admission is based on both high-school class rank and performance on a standardized college aptitude test. Students must also submit their high-school transcripts and, where appropriate, recommendations by persons knowledgeable of their potential for success in university-level education.

#### Class Rank

A class rank at the end of six semesters should be noted on transcripts for students applying for admission during their senior high-school year. If grades are not given, the principal or counselor should assign an estimated class rank.

#### Aptitude Test

One college aptitude test score is required for admission as a new freshman. One of the following tests meets this requirement: American College Testing Program (ACT); Scholastic Aptitude Test (SAT); or Cooperative School and College Ability Test (SCAT) Series II, form IC (College Level) or form IIB or SCAT X. These test results are beneficial to both students and advisers in planning students' academic programs and in considering their educational and professional objectives. In general, the lower the class rank the higher the test score must be to meet the admission requirements and vice versa. Students should request that test scores be sent to the admissions office. This is normally done when students register for the test but may be requested later on forms supplied by the testing agencies.

If students have taken two or more of these tests, or have taken one more than once, all resulting test scores should be forwarded since the admission decision is based on the highest score.

Entrance examinations should be taken at the earliest possible time during the senior year. The admissions office should have all scores before July 1.

#### Transcript

A high-school transcript, certified by the proper high-school official, must be sent directly from the high school attended to the admissions office. The transcript should indicate the class rank at the time of application and all courses satisfactorily completed.

#### Recommendations for High-School Curriculum for Prospective Students

Students should plan early in their high-school years to ensure that they will be adequately prepared for admission to the University. The following curriculum is recommended for all applicants:

English: grammar, composition, and literature	4 units
Mathematics: excluding general and business math	2 units
Science: including at least 1 unit of laboratory science	2 units
Social Studies:	2 units

**Additional Courses:** Students should take 2 additional units from the areas of English, foreign languages, mathematics, science or social studies.

**Remaining units** required for high-school graduation should be taken in such areas as art, music, economics, a second foreign language, two or more units of the same foreign language, mathematics, and science.

Students planning to pursue a **liberal arts degree** should take 2 units of a foreign language.

#### New Admission Requirements for Fall 1987

Students contemplating application for admission in the fall of 1987 or later should be aware that the Board of Curators is studying the University's admissions requirements. Although they may be revised later, at press time the revised requirements for admission to the freshman class stand as follows.

Any high-school graduate is admissible without further data upon submission of a transcript or other evidence indicating he or she meets both the following requirements:

**1** At least 14 units of credit (1 unit = 1 year in class) as follows:

English: Two units emphasizing composition or writing skills are required. One of the remaining 2 units may be in speech or debate.	4 units
Mathematics: (Algebra 1 and higher).	3 units
Science: Not including general science, one of which must be a laboratory course.	2 units
Social Studies:	2 units

**Three additional units** selected from foreign language, English, mathematics (Algebra 1 and higher), science, or social studies. Among these options, two units of foreign language are strongly recommended.

**2** The sum of the student's high-school class rank percentile and aptitude examination percentile must be 75 or greater. (This measure of performance is already in effect, but by January 1, 1985, each campus faculty governing group shall review and may recommend other measures of performance which will indicate a reasonable chance of making a 2.0 grade point average.)

Applicants who do not meet the above requirements will be considered for admission and are encouraged to apply to the director of Admissions who may later request additional data.

A campus faculty admissions committee will establish necessary policies for and oversee the administration of these regulations. The committee, or the director of Admissions

## Undergraduate Study

acting under its direction, will determine which applicants will be admitted. The committee has the authority to establish standard application forms, to request interviews from any applicant, and to establish procedures for admission during the senior year while required courses are being completed. The committee has the authority to establish procedures for early admission from high school, dual high school-University enrollment, trial admission, and GED high school equivalency.

### When To Apply

Qualified applicants are admitted and notified by letter of their admission in the order that completed applications are received. Applications are accepted after October 1 for the next fall semester on the basis of six or more high-school semesters. Completed applications, including high-school transcripts and test scores, should be on file by July 1 to guarantee that they will receive full consideration. Datelines are July 1 for the fall semester; December 1, winter semester; and May 1, summer session.

### Acceptance

Upon acceptance to the fall or winter semester, students must submit a final high-school transcript indicating their class rank and graduation date. First-time freshmen must take placement examinations in English and mathematics. Arrangements for these exams are made with students through the admissions office after notification of admission.

### Advanced Standing for Entering Freshmen

UMSL grants credit hours to entering freshmen who, through performance on College Entrance Examination Board Advanced Placement Tests and faculty-administered tests, demonstrate proficiency in certain college-level courses, such as accounting, biology, chemistry, English, foreign languages, history, mathematics, political science, and physics. For further information and applications write to College Board Placement Examinations, Box 592, Princeton, New Jersey 08540. The score-reporting institution code number for UMSL is 6889. Test scores should be sent to the admissions director and must be on file before the first day of classes. A brochure with detailed information is available in the admissions office.

### Dual High School-University Enrollment

Superior high-school students may be admitted in a special student category for the purpose of taking one or more university courses concurrently with their final year or two of high-school enrollment or during the summer session prior thereto. Students must submit a regular application for admission as well as a special request which includes a high-school recommendation. Students are admitted on an individual basis on the basis of academic standards that exceed those required for regular admission from high school. Admission is limited and governed by space available and students must meet the prerequisites for the desired course or courses.

### College Level Examination Program

Individuals over age 18 who have had no previous college work may earn advanced credit through the College Level Examination Program (CLEP) general examination, provided they score at or above the 50th percentile. A maximum of 28 semester hours of credit may be earned. In addition, CLEP offers subject examinations for credit in one specific area. These examinations can be taken any time, provided the student has not taken a course in the test area. A score at or above the 50th percentile must be earned to receive credit. Consultation with an adviser is recommended. CLEP tests are given the third week of every month at UMSL. Contact the admissions office at 553-5451 for complete information. A brochure with detailed information is available.

### Credit for Military Service

Credit may be allowed for service training programs conducted by the various Armed Forces branches. The American Council of Education recommendations in *A Guide to the Evaluation of Educational Experiences in the Armed Services* generally serve as a basis for granting such credit. To count toward a degree, the credit granted must be appropriate to the student's curriculum.

### Trial Admission

High-school graduates who do not meet the regular admission standards may be admitted on a conditional basis in the summer session. Usually enrollment is for six hours and if grades of C or better are earned, the student may submit an application at the end of the summer session. If space is available, the application is reviewed and the student is permitted to enroll in the fall semester.

### High-School Equivalency Applicants

Individuals may seek admission on the basis of high-school equivalency earned from performance on the United States Armed Forces Institute General Educational Development (GED) tests. Admission is based on an evaluation of the educational merits of military and other experiences since leaving school, GED test scores, and performance on other aptitude tests.

### Veterans and Mature Adults

Applicants may be admitted as special or irregular students, not degree candidates, if they are veterans of the military service or over age 21 and have not previously earned college credit, have not been in school for several years, have not earned a high-school diploma, or passed the GED; or if they have a diploma, but do not meet regular admission requirements from high school. Admission is based on special preparation, attainment, or exceptional aptitude as judged by an evaluation of military and other experiences, test scores, and other indicators of potential success at the University. Students can become degree candidates on the basis of their performance in university course work.

## Undergraduate Study

### Out-of-State Residents

Out-of-state students must be graduates of accredited high schools. Their high-school class rank and aptitude test performance should indicate an appreciably higher probability of success than that applied to Missouri high-school graduates. **Nonresident students must pay nonresident tuition fees in addition to regular incidental fees.**

### Transfer Students

Missouri state institutions of higher education welcome transfer students; however, students should be aware that actual requirements for degrees vary from institution to institution. This factor makes it particularly important that students who plan to transfer make contact, very early in their academic career, with the campus where they eventually wish to graduate. By arranging in advance for appropriate courses to be taken prior to transfer, it is likely that problems can be minimized. Your own campus dean's office or admissions office can help you contact the institution to which you might transfer if you need assistance.

Students from other colleges and universities must submit official transcripts of high-school and college work and an application for admission. Official transcripts should be sent by each institution previously attended directly to the admissions office; hand-carried credentials are not accepted. All credentials submitted for admission become the property of the University. All application material should be submitted by July 1 for the fall semester; December 1, winter semester; and May 1, summer session.

Transfer applicants applying to UMSL from regionally accredited colleges or universities with grade point averages of 3.0 or higher, based on a 4-point system, may be admitted at any time. Students with grade point averages of 2.5 or higher may be accepted **any time during the semester before desired admission**, while students with grade point averages of 2.0 or higher may be accepted any time during the **last half of the semester before desired admission**. UMSL may not admit any student who is under suspension or dismissal or whose previous record shows work of an inferior or unsatisfactory quality.

### Advanced Standing

According to a recent Articulation Agreement among public institutions within the state of Missouri, the following guidelines will govern transfer of credit to the University of Missouri-St. Louis from colleges and universities within the state of Missouri.

Advanced standing in the form of credit hours may be allowed for work satisfactorily completed in another college or university of recognized standing, public or private, located in the state of Missouri, as long as the work satisfies the requirements of the university division in which the student registers.

The academic record at a given institution will include all courses attempted. Grades of D or better, earned in college-

level work at an accredited or approved institution of higher education, should receive full credit when transferred to UMSL. However, the University of Missouri-St. Louis will treat all grades on courses attempted on the same basis as that of the UMSL student. For example, if an UMSL student is required to repeat a specified course, having earned a D grade, a transfer student will also be required to repeat the same course, if it carried a D grade.

Advanced standing for work of the senior year is not granted. To receive recognition, claims for advanced standing must be made by students within one semester after entrance.

Shortly, after all official transcripts are on file, a student's previous academic record will be evaluated to determine which courses are applicable. Should there be any question concerning the applicability of any courses the student should contact the admissions office by writing or calling the director of Admissions, phone number 553-5451.

Beginning in the summer of 1985, the UMSL catalog in effect at the time of the transfer student's initial enrollment in a college will govern the degree requirements, provided the student has had continuous, full-time enrollment and remains in the same degree program after transferring to UMSL. If full-time continuous enrollment has not been maintained, or if students change their program objective, the catalog in effect at the time of a student's latest enrollment, or at the time the student elects the new program, may be followed.

Degree checks, that is, determining whether courses meet a specific degree requirement and whether courses are accepted as a part of the student's academic major, are made in the office of the dean concerned. Should any questions arise, a student may contact the director of Admissions who will inform the student of the appropriate procedure to be followed in pursuing the question. Unresolved problems related to the transferability of credit may be appealed to the Senate Committee on Admissions and Student Financial Aid.

### Associate Degree Transfers from Junior Colleges

Students admitted to the University with associate degrees oriented toward the baccalaureate degree from an accredited associate-degree granting institution and with a grade point average of C or above are accepted in junior standing. However, the student must still meet the specialized lower division degree requirements and the specialized requirements of University departments or divisions. Courses completed in the associate degree program are evaluated for application to specific degree requirements by the same criteria used for transfer students from other colleges and universities located in Missouri, other University of Missouri campuses, and other divisions on the same university campus.

Credit earned in or transferred from a community college shall normally be limited to approximately half the baccalaureate degree program requirement, and to the first two years of the undergraduate educational experience.



## Undergraduate Study

### Transfer Within the University of Missouri System

A student not in good standing at another campus of the University of Missouri (suspended or dismissed) is not eligible to enroll at the University of Missouri-St. Louis campus.

Any course that leads to an undergraduate degree on any campus of the University of Missouri shall be accepted in transfer toward the same degree on any campus of the University offering that degree. Grades, including D and F grades, and honor points earned in such courses will also transfer and will be included in the cumulative grade point averages of the transferring student.

Questions concerning acceptability of credit should be referred to the director of Admissions. Unresolved problems related to transferability of credit may be appealed to the Senate Committee on Admissions and Student Financial Aid.

Students within the last 30 hours of graduation may take a limited number of courses at another campus in the system, provided the last 15 hours are taken at UMSL and the work is approved by their respective deans and departments.

### Students from Other Countries

Prospective students living outside the United States and its possessions should write the admissions director at least one year before the date of desired admission for information and forms about admission to the University and the approximate expenses. Upon approval of application papers and official records, students are notified by official letter. Students should not make plans to leave their countries without first obtaining permission to enter the University.

All students must take the Test of English as a Foreign Language (TOEFL). Write to Test of English as a Foreign Language, Educational Testing Service, Princeton, New Jersey 08540.

Foreign students now studying in the United States may be admitted only after completion of at least 24 semester hours of work, with a grade of C or better, in an accredited school offering a college-level program, provided that school's letter of admission was the basis for the student's receiving a visa. To complete their credential file, students must furnish original and official transcripts from each school attended, both in this country and abroad. Students should not consider admittance final until they receive an official acceptance letter.

### Former Students

Former students not currently enrolled should file a request for a permit to reenroll with the admissions director at least 30 days before the registration period. If fall semester applicants receive an early admission decision, they may preregister in July and August; preregistration for the winter semester and the summer session is limited to students enrolled during the preceding term.

### Visiting Students

Students who do not wish to earn a degree from the University may be admitted to the summer session as visiting college students. Admission requires certification by the student's college or university that the student is in good standing and has permission to enroll in approved course work for transfer credit back to that institution. Application forms for certification can be obtained from the admissions office. At the end of the session, students must request that their grades be transferred to their respective schools.

### Auditor (Formerly Hearer)

A student may enroll as an auditor in any course with the prior consent of the instructor and dean of the School or College in which the auditor is registered. They may be dropped from the course when, in the judgment of the instructor and dean, their record justifies such action. Auditors are charged full fees and receive no academic credit.

### Evening College Applicants

The admission procedure for the Evening College is the same as for the day division. For further information, see the next section, "Enrollment and Advising: Evening College" and the Evening College special section of this *Bulletin*.

## Registration

### New Students

Upon admission to the University, students are notified that registration instructions will be sent by the registrar's office before registration. New students admitted for the fall semester may participate in advance registration during the summer months; new students admitted for the winter or summer terms participate in regular registration.

### Former Students

Former students not currently enrolled must submit requests for permits to reenroll. Former students in good standing who submit requests to reenroll at least one month before advanced registration for the fall semester, are eligible to preenroll. Regular registration instructions will be mailed to those former students who were not admitted at an early date for the fall semester, as well as to those admitted to the summer and winter terms.



## Undergraduate Study

### Currently Enrolled Students

Currently enrolled students may participate in advance registration for the fall, winter, and summer terms. Students enrolled during the fall term may preregister for the winter semester before the end of the fall semester. Currently enrolled students wishing to preenroll for the next semester in different divisions must submit change of division cards to the admissions office.

Students who register after the regular registration period may have difficulty enrolling in desired subjects because of closed courses. Moreover, a student may not be permitted to carry the full course load and may have to enroll for a proportionately reduced amount of work, depending upon the enrollment date. The dates of regular registration are publicized in the University Calendar. Ordinarily, students do not receive credit for work in a University division begun after the end of one-eighth of the term.

### Registration Cancellation

Students who have enrolled and paid their fees but do not wish to attend the University may cancel their registration any time before the first day of the semester. Cancellation forms may be obtained at the registrar's office. The full registration fee, minus a \$20 processing charge, will be refunded through the mail.

## Enrollment and Academic Advising

In most cases, incoming undergraduate students are enrolled in the College of Arts and Sciences or the Evening College. Exceptions are transfer students who meet the specific admission requirements of the School of Business Administration or School of Education, or School of Nursing.

Students planning to pursue degrees in the School of Education or School of Business Administration are enrolled in the College of Arts and Sciences until they obtain 60 credit hours with a cumulative grade point average of 2.0. In the case of the School of Business Administration, the student also must have satisfied the School's general education requirements. Refer to School of Business Administration and School of Education sections in this *Bulletin* for additional admission requirements.

Students in the Evening College who have completed 40 semester hours must declare their majors. They are assigned to departmental or School advisers.

Registered nurses planning to pursue a degree in the School of Nursing are enrolled in the College of Arts and Sciences or the Evening College until they obtain 30 credit hours with a cumulative grade point average of 2.5.

The dean's office in each division will assist students in the assignment of academic advisers and with the following matters: making a change in course schedule, evaluating transfer credit, withdrawing from school, placing a course on a satisfactory/unsatisfactory basis, and filing for degree candidacy.

### College of Arts and Sciences

All incoming students and those students enrolled in the College of Arts and Sciences who have not declared a major can receive professional academic advice from the advisers in the dean's office, 303 Lucas Hall, 553-5300. Since it is important for students to determine what specific requirements must be satisfied to complete their chosen baccalaureate program, they are urged to declare a major as soon as possible. Once students have declared a major, they should inform the office so that academic advisers can be assigned. The adviser, a faculty member in the student's area of interest, will assist in selecting appropriate courses and advise the student in matters relating to degree requirements.

Students transferring into the College from other institutions may seek assistance from the dean's office to effect as smooth a transition as possible. The College will evaluate all transfer credit to determine its applicability to the specialized degree requirements of the College.

### School of Business Administration

The School of Business Administration's Office of Academic Advising has available a staff of professional, academic advisers who provide assistance to students in planning their academic careers and in dealing with the following concerns:

- Appropriate Course Selection
- School of Business Administration Requirements
- General Education Requirements
- Evaluation of Transfer Credit
- Career Information
- Course Prerequisites
- School Policy and Regulations
- Graduation Requirements

Other matters related to a student's academic matriculation should also be directed to this office.

Prospective business students who are admitted to the College of Arts and Sciences or the Evening College should submit an official declaration of their major to the dean's office of the College to which they have been admitted. They will then be assigned to the School of Business Administration for advisement. Transfer students at the junior or senior level who have been admitted to the School of Business Administration should contact the advising office and plan to meet with an adviser early in the semester for an evaluation of transfer credit and planning of their degree program.

All students are urged to make advising appointments early during each semester, prior to registration dates, to obtain approval of schedules for coming semesters. Advising is a continuous and ongoing process.

## Undergraduate Study

### School of Education

Students wishing to prepare for teaching careers may choose either of the following alternatives:

- 1 After completing 60 hours of course work at UMSL or another accredited institution, students who intend to teach in elementary, early childhood, special education, business education, or physical education settings must apply for admission to the School of Education.
- 2 Students who intend to teach in other secondary school classrooms may elect to apply for admission to the School of Education to pursue the bachelor of science in education degree or they may elect to receive degrees from other UMSL colleges and meet teacher certification requirements.

With either option, students must meet University and departmental requirements as well as those for teacher education in Missouri. Teacher education curricula vary considerably. Careful planning of individual schedules is necessary to ensure selection of appropriate courses and to avoid extending programs beyond 120 hours. Students should, therefore, seek advisory help from the Office of Undergraduate Studies in Education (155 Marillac Hall) at the earliest opportunity. Regular consultation with advisers is essential.

The Office of Undergraduate Studies in Education provides assistance to all students interested in professional education programs and certification requirements. Questions about admission to the teacher education program, sequences of courses, prerequisites, graduation requirements, and related matters should be directed to that office.

### Evening College

The Evening College Office (324 Lucas Hall), has a staff of academic advisers who help students plan degree programs or select courses appropriate to their individual needs. This service is available to all incoming and current undergraduate Evening College students. Advisers will review transfer credit courses, prerequisites, and degree requirements. Once Evening College students have declared a major, usually after completing approximately 40 semester hours of credit, they are assigned to a faculty adviser in the student's area of study. A declaration-of-major form must be completed in the Evening College office so that the faculty adviser may be assigned. For an appointment call the Evening College Office, 553-5162.

### School of Nursing

The School of Nursing offers a bachelor of science in nursing degree to registered nurses who are graduates of a hospital diploma program or an associate degree nursing program.

A junior-senior level program, UMSL's B.S.N. program is designed to build on the student's prior education and experience in nursing. The program includes 60 credit hours, with approximately half in general education, including humanities, natural and social sciences, communicative skills,

and mathematics. The other half of the program is nursing courses and includes nursing theory and research, physical assessment, nursing management, patient education and nursing care with families, groups and in the community.

All qualified applicants are admitted to the School of Nursing. Enrollment in some clinical courses may be limited due to the availability of clinical facilities. Preregistration is advised.

Prospective students are advised to contact the Advising Office, 143 South Campus Classroom Building, the semester prior to anticipated admission to determine prerequisite courses needed.

## General Education Requirements

Students must successfully complete the general requirements of the University, the School or College in which they are enrolled, and the specific requirements of their area of specialization. **Described below are the general education requirements for all degrees.**

### Credit Hours

All candidates for baccalaureate degrees must complete 120 semester hours. At least 45 of these hours must be courses numbered 100 or above (or comparable courses transferred). Students must maintain a minimum of 2.0 grade point average, overall as well as in their area of specialization. Students seeking two degrees must complete at least 24 additional credit hours over the requirements for one of the degrees.

### Basic Skills

All students must show from their high-school or college transcript, by examination or by appropriate courses, competency in basic communicative and mathematical skills. Students should check with their divisional deans' office at the end of the first year to verify that their proficiency has been properly recorded.

An additional communicative skill requirement must also be completed before graduation. Students should check with their divisional dean's office at the beginning of their senior year to verify that fulfillment of this requirement has been recorded.

### Communicative Skills (two requirements)

- 1 Submit a satisfactory score on the English Placement Test. Contact the Office of Admissions for test date schedule.  
**or**  
Achieve a grade of C or better in a college-level English Composition course—at UMSL, English 10, Composition.
- 2 Effective in the fall semester, 1985, students wishing to complete a degree at UMSL must complete English 160, Advanced Expository Writing, or its equivalent.

## Undergraduate Study

### Mathematical Skills

Any **one** of the following will serve to demonstrate proficiency in the basic mathematical skills area:

- 1 Completion of two years of high school mathematics, exclusive of general mathematics, with grades of C or better.
- 2 Satisfactory score on the mathematics placement test. (The admissions office can tell a student when this test is given.)
- 3 A passing grade in college-level mathematics course.
- 4 A passing grade in Mathematics 02C.

### Breadth of Study

Students must complete at least 42 hours in the following three areas, with at least three courses in each area. (Courses meeting these requirements are listed in each departmental section of the separate booklet, *UMSL Bulletin: Description of Courses*. This booklet is available for purchase in the campus bookstore. Copies are also in the University Libraries.)

- 1 **Humanities:** art history or art appreciation (applied art and music courses do not count); literature; music history, literature, theory, or appreciation; philosophy and logic; theatre appreciation, theory, and history. (Symbol [H])
- 2 **Natural sciences and mathematics:** applied mathematics; astronomy; atmospheric science; biology; chemistry; computer science; geology; mathematics; physics; statistics. (Symbol [SM])
- 3 **Social sciences:** administration of justice; anthropology; economics; geography; history; political science; psychology; social work; sociology; speech communication. (Symbol [SS])

### Other Requirements

#### American History and Government

Students must satisfactorily complete a course or courses in American history or government taken at the University of Missouri or at other colleges or universities in Missouri. Transfer students should check with the dean's office of their division to find out if they have fulfilled this requirement.

The requirement may be satisfied by **one** of the following courses:

- History 3**, American Civilization I
- History 4**, American Civilization II
- History 6**, Honors American Civilization
- History 107**, The History of Missouri
- History 311**, Topics in American Constitutional History
- Political Science 11**, Introduction to American Politics
- Political Science 121**, Civil Liberties
- Political Science 130**, State Politics
- Political Science 131**, Congressional Politics
- Political Science 135**, Introduction to Urban Politics
- Political Science 140**, Public Administration
- Political Science 230**, The American Presidency
- Political Science 233**, Introduction to Political Behavior
- Political Science 235**, Political Parties

- Political Science 240**, Bureaucratic Politics
- Political Science 245**, Urban Administration
- Political Science 320**, Introduction to American Constitutional Law
- Political Science 331**, Legislative Processes
- Political Science 346**, Urban Planning and Politics

### Courses Not Approved for Degree Credit

- ELE ED 082**, Effective Reading and Study Skills
- English 09**, English Composition
- Mathematics 02**, Fundamentals of Algebra
- Mathematics 02a, b, or c**, Fundamentals of Algebra I, II, or III
- Mathematics 03**, Trigonometry
- Psychology 09**, Seminar in Career Choice and Life Planning

### Business Education Courses

The following courses are approved for degree credit **only** in the Business Education degree program and in the Bachelor of General Studies degree program with the dean's approval:

- SEC ED 160**, Shorthand Theory I
- SEC ED 161**, Shorthand Theory II
- SEC ED 162**, Business and Professional Typewriting I

### Reserve Officers Training Courses

Courses in ROTC do not receive Arts and Sciences credit, nor are they counted in the student's grade point average.

### Other Considerations

#### Academic Residence

Students must be in residence for at least 24 of the last 30 hours of graded credit (exclusive of pass-fail grades), except under unusual circumstances, to be decided by the dean.

#### Graduation

Students must file a degree application form with their respective dean's office at least one year before the expected graduation date. The dean's office makes a final check to determine that all graduation requirements have been met. Students should check with the dean's office or an adviser to be sure their program fulfills the requirements of the department and division as well as the University general requirements.

To assure graduating at the end of a specific semester, all work for that semester and any delayed grades from previous semesters must be completed with the grades sent to the admissions office no later than the official date for submission of final semester grades.



# Undergraduate Study

## Academic Policy

### Course Descriptions

Undergraduate and graduate courses offered at UMSL are published in a separate booklet, the UMSL *Bulletin*:

*Description of Courses*. All course listings are grouped by School and individual department. This booklet is available for purchase in the Bookstore. Copies also are available in the University Libraries.

Approximately four weeks before each semester begins a *Schedule of Courses* is published listing the specific courses offered that semester and their meeting times and locations. The University reserves the right to cancel without notice any course listed in this *Bulletin* or the course schedules for any semester or to withdraw any course which does not have adequate enrollment at the close of registration.

### Credit Hours

The University credit unit is the semester hour, which represents a subject pursued one period weekly for one semester of approximately 16 weeks or for a total of approximately 16 periods for one term. Generally, a course valued at three semester hours meets for three periods weekly for one semester, a two-credit course two periods a week for a semester, and so on. Normally, the lecture or recitation period is fifty minutes long and the laboratory period one hour and fifty minutes.

In the *Description of Courses* booklet, the number of credit hours is in parentheses after each course title. If the credit is variable, to be fixed in consultation with the instructor, it is shown by (credit arranged) or by minimum and maximum credit, such as Research (2-8).

### Grading System

The grading system for undergraduate courses consists of A, B, C, D, F, S (Satisfactory) or U (Unsatisfactory), EX (Excused), DL (Incomplete), and Y (No basis for a grade). The grade of A indicates superior work, the grade of B, above-average work, and the grade of C, average work. The grade of D indicates the work is below average, and the grade of F means that the student's work does not meet the minimum standards. The grade of S or U, indicating satisfactory or unsatisfactory, is used when a student has formally requested this option for a course. (See "Satisfactory/Unsatisfactory Option" below.)

A four-point grading system (A=4, B=3, C=2, D=1, F=0) is used for all undergraduate students. Grade point average is computed by dividing the total quality points (number of credit hours for a course multiplied by the grade value received) by the number of hours taken.

At the end of each semester and summer session the admissions director informs students of their grades. A copy will be mailed to parents at the student's request.

**Delayed Grade** A student whose work is incomplete at the end of any semester and who has, in the instructor's judgment, sufficient reasons for failing to complete the work, may, with the approval of the instructor and department chairperson, be assigned a delayed grade. Such work must be made up no later than one semester after the incomplete grade is given or the grade automatically becomes F. The dean may, in unusual circumstances, extend this time limitation. (A summer session is not counted as a semester.) Notice of a change in a delayed grade shall be given to the admissions director on a special form.

**Y Grade** When, in the instructor's judgment, there is no basis for evaluating the work of students who do not officially drop a course or officially withdraw from the university, a mark of Y (unauthorized withdrawal—no basis for evaluation) is given. After a two-semester waiting period has elapsed, the Y will be changed to an F or an "Excused." The "Excused" grade will be given when the student can demonstrate sufficient reason for not having completed the requirements of the course. The change to "Excused" will require the approval of the instructor or the dean of the College or School, if the instructor is no longer on the faculty.

### Examinations

Examinations may be given only at regular class meeting times or as designated by the Senate Committee on Curriculum and Instruction.

### Satisfactory/Unsatisfactory Option

Effective in the Fall Semester 1985, undergraduate students may elect to take up to 18 credit hours during their academic careers on a satisfactory/unsatisfactory grading basis. This includes courses taken as electives or those which satisfy the general education requirements. Most courses required for a specific degree may not be taken satisfactory/unsatisfactory and academic departments may designate other courses within their jurisdiction which may not be taken under the option.

Students register for courses in the normal manner and may exercise the satisfactory/unsatisfactory option before the end of the first four weeks of the semester or the first two weeks of the summer term. Requests for this option are made through the admissions office. Instructors are not informed of students taking courses on a satisfactory/unsatisfactory basis.

Satisfactory grades (equivalent to "A"—"C") have no numerical value in computing overall academic average but they do satisfy hourly graduation requirements. An unsatisfactory grade ("D" or "F") neither satisfies hourly graduation requirements nor is computed into the overall academic average. Grades will be recorded on transcripts as "S" or "U".

### Major Differences Between Pass/Fail and S/U Option

1) The old Pass/Fail (P/F) option is replaced by the Satisfactory/Unsatisfactory (S/U option).

## Undergraduate Study

2) More than a change in names, the new S/U option makes "D" work "unsatisfactory," whereas it was "passing" under the Pass/Fail system.

3) No satisfactory or unsatisfactory grade will be included in the G.P.A. Under the old Pass/Fail system, failing grades were averaged in the G.P.A., but passing grades were not. The new option will bring UMSL into conformity with national collegiate standards.

It is worth emphasizing that a student doing "D" work in a course under the new system will receive **no credit** for that course. Under the old Pass/Fail rule, "D" work received credit.

4) The total number of hours a student may elect to take on a satisfactory/unsatisfactory basis is reduced from 24 to 18 credit hours.

### Repeating Courses

Students passing a course are not given credit for repeating the course except in those courses which require a minimum C grade as a prerequisite for other courses in the same department. In such cases, students receiving D or F grades do not receive double credit hours toward graduation, but the points of the grades assigned them and the hours of the repeated courses are used in computing the average.

## Enrollment Policies

### Prerequisites for a Course

A minimum grade of C is required to meet the prerequisite requirements of any course except with the permission of the department in which the second course is taught. An academic-standing prerequisite is stated by class: for example, senior standing (senior class standing). Requirements for class standing vary. Students should determine the requirements for their division. Individual course restrictions are listed in the description of courses.

### Course Load

A normal full-time semester work load is 15 hours. Six hours is normal for the summer session. Minimum full-time enrollment is 12 hours, excluding any physical education or military sciences. Students who have shown the ability to carry more than 16 hours successfully may enroll for additional hours with the approval of their advisers or dean.

### Attendance

Students are expected to attend class regularly, and, in accordance with the UMSL Bylaws, faculty may establish penalties for excessive absences. Students absent from class for more than three successive days are reported to the dean.

Students should tell their divisional dean's office of an extended absence. An absence known in advance should be reported to the instructors of courses that will be missed. Make-up of examinations or work missed is allowed at the instructor's discretion. Students excused from class for valid reasons by their deans shall be permitted, if possible, to make up work missed, provided the dean notifies the instructor in writing.

### Dropping/Adding Courses

To change their original enrollment, students must get approval from their advisers and respective deans. Students may drop/add courses by filing a petition form in their dean's office. As many as five courses may be dropped/added on one form. Students may not enter courses after the first two weeks of the semester or the first week of the summer session. Students may withdraw from courses without a grade up to the end of the fourth week of the semester and the second week of the summer session.

From the fifth through the twelfth weeks (for summer session, the third through the sixth weeks) students may withdraw from a course with an "Excused" grade, providing they are passing the course and receive the approval of their instructor, adviser, and dean's office representative. Otherwise, a failing grade is given. Students not attending classes who fail to drop officially receive F or Y grades. The Y later changes to F or "Excused."

After the allowable period mentioned above, "Excused" grades are given **only in exceptional** instances where the instructor's approval and dean's approval is given. These

## Undergraduate Study

grades are recorded on the students' official records at the end of the term. If an F grade is recorded it is counted in computing the grade point average. No partial credit is granted to students who withdraw from a course during any semester or otherwise fail to complete the work required for full course credit.

### Section Changing

Section changing is normally done during the first two weeks of a regular semester and the first week of a summer session. Departmental approval may be obtained in exceptional instances for section changes made at later dates. Forms for doing this may be obtained, completed, and submitted to the department office for day courses and to the Evening College office for evening courses. Course cards for the sections being added should be submitted with the forms. There is no fee for section changing.

### Change of Major

To change academic majors, students should consult their adviser and the dean's office. Students admitted to one division may pursue work in others under the conditions set forth by the other division faculty. The chairpersons of a student's major department shall determine which courses in other divisions, or other institutions, shall apply as credit toward the degree.

### Withdrawal after Classes Begin

After classes begin, students may withdraw from the University by completing the withdrawal form, available in the dean's office. During the first four weeks of the semester and the first two weeks of the summer session, students may withdraw from the University without receiving grades. After this period grades of F or "Excused" are issued based on whether the student is passing or failing. After the semester's twelfth week (or the sixth week in the summer session), "Excused" grades are given only in exceptional instances with the instructor's and dean's approval.

These grades are recorded on the student's official record at the end of the term. An F grade is counted in computing the grade point average. No partial credit is granted to students who withdraw from school during any semester or otherwise fail to complete the work required for full course credit. Students who stop attending classes without withdrawing officially from the University are issued an F or the temporary Y grade. Any F grades are counted in computing grade point averages.

## Academic Probation, Suspension, and Dismissal

A student may be placed on academic probation at any time his or her cumulative GPA falls below a 2.00. Students should consult College or School advisers in their respective dean's office for additional information.

Students may be suspended if they do not pass more than two-thirds of their work, their semester grade point average is below 1.5, or their cumulative grade point average falls below 1.75. Students may be suspended if they have been on scholastic probation for two or more semesters, not necessarily consecutive, and again become subject to probation. The dean may retain students on probation rather than suspend them if circumstances justify such action.

Students who have been suspended may be dismissed if they again become subject to suspension. Students placed on probation because of poor scholastic records at other institutions are regarded as having been once suspended under these rules.

Normally, students who have been dismissed are not considered for readmission. In certain unusual cases, students may be readmitted on probationary status after one year.

Students admitted on probation to the summer session shall enroll for at least six academic hours. If they receive any grades below C, their work will be reviewed by the divisional dean or appropriate committee to determine eligibility to reenroll. Students enrolled in the summer session whose grade point averages are below 1.5 may have their work reviewed. Students suspended or dismissed from one division shall not be admitted to any other division until they are eligible for readmission to the original division, unless they obtain the consent of the divisional dean or appropriate committee. In this event, the dean or committee shall file a written statement for the student's official records, stating the reasons for the decision.

### Academic Dishonesty

Academic dishonesty is a serious offense which may lead to probation, suspension, or expulsion. One form of academic dishonesty is plagiarism—the use of an author's ideas, statements, or approaches without crediting the source. Academic dishonesty also includes such acts as cheating by copying information from another student's examination, take-home test, or laboratory manual. The code of student conduct is in the back of this *Bulletin* and is also available in the *UMSL Student Handbook*.



## Undergraduate Study

### Honors

#### Honor Societies

The following is a list of honorary societies at the University:

- Alpha Sigma Lambda (Evening College)
- Beta Alpha Psi (School of Business Administration, Accounting Majors)
- Beta Gamma Sigma (School of Business Administration)
- Kappa Delta Pi (School of Education)
- Omicron Delta Epsilon (Economics)
- Phi Alpha Theta (History)
- Phi Kappa Phi (Campus-wide)
- Pi Sigma Alpha (Political Science)
- Psi Chi (Psychology)

**Dean's List** At the end of each semester the College of Arts and Sciences, School of Business Administration, School of Education, the Evening College, and the School of Nursing send letters of commendation to undergraduates completing at least nine hours of graded courses with grade point averages of 3.2 or above for the semester.

**Who's Who Among Students in American Universities and Colleges** Eligible students may be nominated to *Who's Who Among Students in American Universities and Colleges* by students (whether for themselves or others), faculty members, or administrators. Nominees are selected on the basis of scholastic ability (a cumulative grade point average of 2.5 or higher), participation and leadership in academic and extracurricular activities, service to the school, and a promise for future usefulness. Nomination forms and further information may be obtained in the offices of the academic deans, vice chancellor of Student Affairs, or the Office of Student Activities.

**Latin Honors** To graduate with Latin honors, students must have attended UMSL for 60 graded hours and must meet the following qualifications: *cum laude*—3.2 to 3.49 grade point average; *magna cum laude*—3.5 to 3.79 grade point average; *summa cum laude*—3.8 to 4.0 grade point average. All honors must be recommended by the major department.

### Transcripts and Commencement

The director of Admissions will furnish transcripts of credits to a student upon written request. Transcripts are furnished to students' parents or guardians or other parties or institutions only if students have filed written consent with the Office of Admissions. There is no charge.

Students transferring to another University of Missouri campus may ask the UMSL director of Admissions to furnish a transcript to the admissions office of the other UM campus.

Requests for transcripts by organizations either supporting students or with fee compensation programs are not honored unless the student has filed a consent form with the Office of Admissions, authorizing the release of such information.

Transcripts are not issued to or for students who have financial obligations to the University until those obligations are paid in full.

#### Commencement

Degrees are conferred at commencement with candidates present for the awarding of diplomas. Only in unusual circumstances may degrees be conferred in absentia.

# Undergraduate Study

## Fees for Undergraduate Study

Detailed information regarding current fees and residency regulations is furnished in the *Schedule of Courses*, a newspaper schedule, distributed before each semester registration, and in the pamphlet, *Tuition and Residence Rules*, available at the cashier's office. Students should be aware that fees shown are current as this publication goes to press, but fee changes may occur while this *Bulletin* is still in use.

The University reserves the right to change fees and other charges at any time without advance notice.

### Payment of Fees

All University fees must be paid in full at the time of registration as a condition of admission to classes. Students who preregister and do not pay fees by the announced deadline will have their registration cancelled and be required to register again and pay fees during the regular registration period. Registration is not complete until all fees are paid; partial payment or deferment of fees cannot be honored.

Courses taken as an auditor or for reduced credit are counted at their normal credit value in computing the fees to be paid. Students enrolling in zero credit courses are also required to pay fees according to the equivalent course credit.

### Personal Checks

Personal checks in payment of fees or other obligations to the University will be accepted only when the amount of the check does not exceed the amount due from the student.

A student presenting a check to the University in payment of student fees which is returned unpaid and remains unpaid after the close of regular registration period, shall be considered a **late registrant** and shall pay a late registration fee, equal to the undergraduate incidental fee for one credit-hour.

Valid MasterCard or VISA credit cards are accepted.

### Delinquent Indebtedness

All delinquent indebtedness to the University must be cleared before transcripts or diplomas will be released.

### Late Registration Fee

Students registering after the close of the regular registration period must pay the **late fee, equal to the undergraduate incidental fee for one credit-hour.**

## Incidental Fees (1985-86)

All students enrolled in the University must pay an incidental fee as follows:

### Undergraduate Students

#### Regular Semester (Effective Fall, 1985)

\$689.50 for 14 or more credit hours

#### Summer Session (Effective June 10, 1985)

\$344.75 for seven or more credit hours

For other sessions not specified or for partial enrollment, the incidental fee is calculated at \$49.25 per credit hour.

For **Graduate Student** incidental fees, see next section entitled "Graduate Study: Fees."

## Nonresident Tuition Fee (1985-86)

Students who do not meet the residency requirements must pay the nonresident tuition fee as listed below, **in addition to the appropriate incidental fee.** A definition of "residency" is outlined in *Tuition and Residence Rules*, available in the cashier's office. Students are responsible for registering under the proper residence and paying proper tuition fees. They are also responsible for raising any questions if there is a possibility that they are subject to the nonresident fee. The nonresident fee is charged as follows:

### Nonresident Undergraduate Students

#### Regular semester (Effective Fall, 1985)

\$1379 for 14 or more credit hours

For 1 to 6 credit hours, the nonresident tuition fee will be waived through the **Nonresident Assistance Program.** See Financial Assistance, page 27.

#### Eight-Week Summer Session (Effective June 10, 1985)

\$689.50 for 7 or more credit hours

For 1 to 3 credit hours, the nonresident tuition fee will be waived through the **Nonresident Assistance Program.** See Financial Assistance, page 27.

For other sessions not specified or for **partial enrollment** the nonresident undergraduate tuition is calculated at **\$98.50 per credit hour.**

For **nonresident Graduate Student** fees, see next section entitled "Graduate Study: Fees."

## University Center and Student Activities Fee

All students registered in the University are required to pay a University Center and Activities Fee as follows:

#### Regular Semester (Effective Fall, 1985)

\$55.00 for 14 or more credit hours

#### Summer Session (Effective Summer, 1985)

\$27.50 for 7 or more credit hours

For other sessions not specified and partial enrollments, this fee is calculated at \$3.93 per credit hour or fraction thereof.

The University Center and Activities Fee is used for programs of broad interest within the University community. The fee for a full-time, regular semester is distributed as follows:

\$19.50 bond retirement on University Center

\$21.08 Athletics

\$12.32 Student Activities

\$2.10 Student Services

## Undergraduate Study

### Parking Fees

Students wishing to operate motor vehicles on campus must register them and pay a fee at the time of registration. Failure to comply with traffic regulations may subject students to disciplinary action, payment of an additional fee, and the denial of the privilege to operate a motor vehicle on campus. Copies of *Traffic Regulations* for the University of Missouri-St. Louis are available at the UMSL police office.

The parking fee for 1985-86 is \$1.75 per credit hour, up to a maximum of \$24.50 for 14 credit hours in the regular semester, for each motor vehicle used by a student on campus. Parking in summer session is a maximum of \$12.25 for 7 credit hours. Students who do not drive regularly may park in the daily parking lot for a fee of 50 cents a day. Special parking rates are available for car pools. Motorcycle and motor scooter fees are \$1 per credit hour for a maximum of \$14 for a regular semester and \$7 for summer session.

The revenue from parking fees is used to construct and maintain roads, parking garages, and surface parking; to rent parking space off campus when necessary; to pay for the printing of parking stickers and regulations; and to pay for all other related expenses. Detailed information on parking regulations and fee refunds is available from the cashier's office.

Parking fees are refundable under the same schedule as other fees. Students must return the scraps of the parking sticker to obtain a refund if they decide to cancel parking privileges. See the "Refund of Fees" section below.

### Student Insurance

An optional accident and sickness insurance plan is available at low cost to students and their dependents. Information concerning premiums and coverage is available upon request from the cashier's office.

### Refund of Fees

Students who officially withdraw from the University or drop courses for which they have paid fees during the regular semester or summer session will receive a refund in accordance with the schedules below. Parking fees are also refunded in accordance with these schedules. These schedules are based on number of class days expired and exclude Saturdays, Sundays, and holidays. Students who cancel parking privileges must return the scraps of their parking sticker in order to receive a refund.

#### Regular Semester

100 percent refund (less \$20 for cost of handling registration) if a student withdraws before the day classwork begins.

90 percent if withdrawal is within the first through the fifth day, including the day classwork began.

70 percent if withdrawal is between the sixth through the tenth day from the day classwork began.

50 percent if withdrawal is between the eleventh through 25th day from the day classwork began.

**No refund if withdrawal is after the 25th day from the day classwork began.**

#### Summer Session

This schedule is based on class days expired and excludes Fridays (when UMSL is on 4-day week), Saturdays, Sundays, and holidays.

100 percent refund (less \$20 for the cost of handling registration) if a student withdraws before the day classwork begins.

90 percent if withdrawal is within the first through third day, including the day classwork began.

70 percent if withdrawal is within the fourth through fifth day from the day classwork began.

50 percent if withdrawal is within the sixth through thirteenth day from the day classwork began.

**No refund for withdrawal after the thirteenth day from the day classwork began.**

## Financial Assistance

Financial assistance is available to undergraduates in the form of grants, loans, scholarships and work-study. Most awards are based upon financial need, but specific funds may have additional eligibility requirements. Federal financial aid programs require that applicants be U.S. citizens or permanent residents. Financial aid is awarded on an academic year basis, therefore a student **must** reapply for aid each year.

In the Educational Amendments of 1976, the federal government specified that all students who receive federal student aid funds be making satisfactory academic progress and not be in default on either National Direct or Federally Insured Student Loans. Specific regulations for these areas as well as for other financial aid consumer information are available from the Office of Student Financial Aid.

#### Checklist for Financial Aid Application

- 1 Obtain a copy of the *Financial Aid Bulletin*, published by UMSL for students seeking financial aid from the University of Missouri-St. Louis.
- 2 Submit your Admissions Application with proper transcripts to the UMSL admissions office.
- 3 File the Family Financial Statement with the American College Testing Service (ACT). The form is available through high-school guidance counselors or the Office of Student Financial Aid. You should submit the ACT needs analysis as soon after January 1 of the year you plan to

## Undergraduate Study

- enroll and upon completion of federal income tax forms for the previous year.
- 4 Students who plan to transfer to UMSL from another college or junior college must also submit the Financial Aid Transcript to any college or junior college previously attended indicating all information concerning previous financial aid received.
  - 5 Students who meet the criteria for the Missouri State Grant and the Pell Grant **must** apply for both.
  - 6 Financial aid preferred deadlines are March 1 for freshmen and April 1 for all other students for the fall semester; December 1 for the winter semester; and May 1 for the summer session.

### Curators' Award Programs

The Curators of the University of Missouri first established the Curators' Scholars Award program in 1890. The intent of the program then and now was to encourage superior high school graduates from Missouri to attend the University. The University Scholars Award program, established later by the Curators, recognizes superior academic excellence of enrolled University students. Both the Curators' and University Scholars Programs are open to full and less than full-time University students. Detailed regulations are available from the Office of Student Financial Aid, 209 Woods Hall.

#### I Curators' Scholars Program

**Initial Selection Criteria** This scholarship program recognizes graduating high-school seniors from accredited Missouri schools. The Scholarship is awarded jointly by the University and by the local high school. In order to be eligible for the Scholarship a student must: be a resident of the state of Missouri; graduate from a regionally accredited high school within the state; rank in the upper 3 percent of all high-school students in that graduating class as of the end of the sixth semester; score at or above the 90 percentile on a standardized college entrance or admissions test; be recommended by the local principal and counselor; and enroll the next academic semester following graduation on one of the campuses of the University of Missouri.

**Initial Award Amount** For those students selected to receive the Scholarship, the amount of the incidental fee for the first 24 credit hours of continuous enrollment in graded coursework shall be waived. This excludes Pass/Fail courses.

**Renewability** The Curators' Scholars Award is renewable after completion of the first 24 credit hours of attempted and graded coursework if the student's cumulative GPA is 3.5 or above. The amount of the award is based on the cumulative GPA and the amount of the assessed incidental fee. For information on the current standard criteria for renewal, students should consult the Office of Student Financial Aid.

#### II University Scholars Program

This scholarship program is designed to recognize enrolled University students for superior academic excellence. In

general, the determination of academic eligibility is made at the conclusion of the winter semester for the following academic year. The director of Student Financial Aid may, however, make a determination of eligibility outside of the normal sequence. These scholarships are open to sophomores, juniors, and seniors.

Students who have transferred from a Missouri college or university are also eligible if they meet the selection criteria. Non-Missouri residents may be designated a University Scholar but may not receive the monetary award.

**Selection Criteria** Selection as a University Scholar is based on the following:

- 1 Students must have completed at least 24 credit hours of graded work (not including pass/fail courses) during the previous academic year.
- 2 Students must have achieved a minimum cumulative grade point average of 3.5.

**Award Amount** The monetary amount of the award is based on the student's cumulative grade point average and the amount of the assessed incidental fee. Renewal is available if the student remains continuously enrolled and has a minimum of a 3.5 cumulative GPA. For information on the current standard criteria for the monetary award, students should consult the Office of Student Financial Aid.

### Nonresident Assistance Program

This program is applicable to all nonresident students originally enrolled and remaining enrolled for 6 hours or less during regular semesters and for 3 hours or less during the eight-week summer session. The fee statement will be reduced by the amount of the award which will equal nonresident tuition fees for the qualifying number of hours.

### ROTC Financial Aid

#### Air Force ROTC College Scholarships

Scholarships covering all required incidental fees, University Center fees, and laboratory expenses are awarded to qualified cadets in the Air Force Reserve Officer Training Corps Program. The scholarships cover only those expenses incurred during the regular academic session in which cadets are enrolled in the AFROTC program. Recipients also receive \$100 per month for the period and reimbursement for book costs.

Students interested in the four-year program must apply during their high-school senior year to Headquarters AFROTC, Maxwell Air Force Base, Alabama, 36112-6663 before December 15. Cadets who do not receive four-year scholarships may continue to compete annually under the program administered locally by the Aerospace Studies Program, Parks College of Aeronautical Technology, Cahokia, Illinois, telephone 337-7500, extension 230 or 259.



## Undergraduate Study

### Army ROTC Financial Assistance

The Army ROTC program provides a \$100 monthly subsistence allowance for up to ten months of the school year for students enrolled in the Advanced ROTC Course. Another program, the Simultaneous Membership Program (SMP), conducted by Army ROTC and the U.S. Army Reserves or National Guard, will provide approximately \$200 per month to qualified students. For more information contact the ROTC Department at 553-5176.

### Army ROTC Scholarships

In addition to four-year ROTC scholarships awarded to graduating high-school students, Army ROTC scholarships are available to qualified college students in two- and three-year increments. These scholarships pay all required incidental fees, University Center and Student Activities fees, book cost reimbursement, lab fees, and a \$100 monthly subsistence allowance for up to ten months of the school year. Selection for the scholarships is based upon academic achievement and leadership potential. High-school seniors interested in competing for the four-year scholarship must apply by December 1 of their senior year. Additional information is available from the ROTC Office, 44 Blue Metal Office Building, UMSL, telephone 553-5176.

### Center for Academic Development/Special Services Unit

A limited amount of financial aid is available through Special Services, an academic assistance program providing attention to the needs of UMSL students who have not yet reached full academic potential. Participants are chosen on the basis of need, prior academic preparation and achievement, and sustained interest and motivation. For more information contact the Center for Academic Development/Special Services office.

### Lucia Kramer Collins Memorial Scholarship

The Lucia Kramer Collins Memorial Scholarship assists needy individuals who are returning to school and have financial responsibility for themselves and one or more dependents. Applicants must be full-time students who can expect to complete their degree in four additional semesters. Applications are available from the Office of Student Financial Aid. Deadline for submission of application and ACT Family Financial Statement is May 31.

### Mathematical Sciences Alumni Scholarship

The Mathematical Sciences Alumni Scholarship is a monetary award for an outstanding junior or senior, majoring in mathematical sciences, as evidenced by a grade point average of 3.5 or higher in at least 24 graded hours of course work at UMSL, and superior achievement in courses in mathematical sciences. Application forms may be obtained from the Department of Mathematical Sciences. The deadline for applications is April 15.

### St. Louis Mayors' Scholarship

The St. Louis Mayors' Scholarship provides educational opportunities for persons planning to enter public service. Recipients are chosen from applicants who are full- or part-time undergraduate students, residents of Missouri, have a minimum cumulative grade point average of 3.0 for 24 hours of graded coursework, and who can give evidence of a commitment to public service in the City of St. Louis. In addition to the application, students must present a statement describing their community-service experiences and plans for applying their University education in the area of public service. Applicants also submit at least three letters of recommendation, one of which must be from a University faculty member who knows the student. The amount of the yearly award is variable and applicable toward fees. Applications are available from the Office of Student Financial Aid after January 1.

### Consumer Information

Consumer information for students can be found in the UMSL *Financial Aid Bulletin*, available at the Office of Student Financial Aid, Room 209 Woods Hall.



## Graduate Study

This section describing admission, general education, degree requirements, and academic policies for students seeking graduate degrees from UMSL, is derived from the *Rules and Regulations* of the Graduate School. The wording of the *Rules and Regulations* is the formal authoritative statement.

### Admission and Application Procedure

Students with bachelor's degrees or the equivalent from accredited colleges and universities may apply for admission to the Graduate School. Applications are reviewed by committees of the departments or schools in which students propose to do graduate study and by the Graduate School. Within limitations, students may be admitted to the Graduate School if their previous academic records and backgrounds suggest reasonable likelihood for success in their proposed programs. Students are admitted only upon recommendation of the department or school involved.

Inquiries concerning admission and requests for application forms should be sent to the admissions director. A list of admission requirements for the particular degree program is sent with each application form. Application forms for financial assistance are also sent on request.

To ensure consideration, completed admission applications with additional required materials should be filed with the admissions director by July 1 for the fall semester; December 1, winter semester; and May 1, summer session. Where applications are accompanied by financial aid requests, the last date for acceptance is usually March 15. Certain departments with heavy enrollments have earlier final acceptance dates, both for admission and financial assistance. Therefore, inquiries concerning Graduate School admission should be made as early as possible.

To be admitted, applicants must take the Graduate Record Examination (GRE) aptitude and advanced tests as required by the department. In the MBA program, the Graduate Management Aptitude Test is required in place of the GRE. These examination scores must be presented in the admission application. Students who have not taken the examination should do so at the earliest possible test date.

Applications for the examination must be made at least four weeks before the test date. Information and application forms may be obtained from the admissions office.

### Matriculating Students

Matriculating students are defined as students applying for admission to pursue approved graduate programs. Classifications within this category include regular, restricted, and provisional students.

### Regular Students

Students may be admitted to pursue degree or certification programs as regular graduate students if their undergraduate and major field grade point averages are 2.75 or above for their undergraduate years and if their test scores meet departmental requirements.

Students with 2.5 to 2.75 undergraduate grade point averages may be admitted as regular students if there is strong supporting evidence in other areas: test scores, high quality work in a major field, strong supporting letters, previous graduate work of high quality, evidence of academic maturity after completion of the bachelor's degree, or successful completion of a prescribed program such as a restricted student.

### Restricted Students

Students with 2.5 to 2.75 undergraduate grade point averages who do not present supporting evidence sufficiently strong to justify admission as regular students may be admitted as restricted students. Explicitly, this is not admission in the sense of full admission to the Graduate School. It is partial admission only and is not an invitation to continue beyond 12 hours. Students admitted in this category have a quasi-probationary status and are provided an opportunity to show their academic talents. Failure to complete courses, e.g. to earn incomplete grades, drop courses, etc., will be construed as evidence of inadequacy. When students have completed no more than 12 hours of graduate course work, their records are reviewed, and their status is either changed to regular or they are dropped from the program.

Students with undergraduate grade point averages below 2.75 are normally not admitted as a regular student unless there is strong supporting evidence in other areas as described above. When students with grade point averages below 2.75 are admitted it is only on a restricted basis. This partial admission is possible only for 12 hours. It expires with the accumulation of 12 hours credit. Only a departmental recommendation, with Graduate School concurrence, advising regular admission can lead to taking more work. A student admitted as a restricted student who is later denied regular admission can not register as a special, nondegree student.

Students with acceptable records but some deficiencies may be admitted as restricted students under admission conditions set by the department or Graduate School. When deficiencies are removed, students are granted regular status. Recommendations to change students to regular status are made by petition to the Graduate School from the department or school.

### Provisional Students

Students who seem qualified for admission but who have not submitted all required admission materials may be admitted provisionally, for one semester or the summer term only. Provisional admission requires students to agree to take the necessary admissions tests at the next time of administration, and to provide needed information. Admission to study in a second or subsequent semester as a provisional student will not normally be granted.

## Graduate Study

Courses in which provisional students enroll apply in the regular way to degree programs. When all admission materials are reviewed, the admissions office sends a change of status form to the department or school to review before finally recommending regular or restricted admission or denial.

### Nonmatriculating Students

Nonmatriculating students are defined as students who wish to take graduate courses, but who are not pursuing approved graduate programs at UMSL. Classification within this category include special, nondegree students; intercampus exchange students; and Continuing Education-Extension, institute, and workshop students. These students are hereby informed that their status is not regular and that their enrollment in courses carries no connotations of permission to enroll in a curriculum leading to a graduate degree.

### Special, Nondegree Students

Space permitting, students may be admitted as special, nondegree students if they are visiting students, are not intending to pursue degree or certificate programs, or are planning to enter programs not yet established.

Students must be accepted by the appropriate department or school and must generally meet requirements for admission as restricted students, except they are not required to submit test scores. Special, nondegree student status is only a category of admission. It may not be acquired by students whose restricted status, for example, has not led to regular admission.

Course work completed by special, nondegree students is not regarded as completed within a degree program. However, such course work may be incorporated into a degree program by action of the department and the Graduate School at a later date. Courses taken as a special nondegree student may not be counted as part of the degree residence requirement. Acceptance of such course work, based on the student's status, by other universities may not be automatic.

Special, nondegree students do not pre-enroll and are not mailed registration packets in advance. Students may register after the regular registration period for matriculating students. Credit earned may be applied to certificate or degree programs, but such work may not exceed more than one-third of the required program hours nor may it be used to satisfy degree residence requirements. The one-third limitation includes any transfer credit as well.

### Intercampus Exchange Students

Graduate students regularly enrolled at another University of Missouri campus who are in good standing may enroll in graduate courses at UMSL as intercampus exchange students. Intercampus exchange students are not included in the quota of graduate students set by departments or schools. Registration regulations are the same as for special, nondegree students. Intercampus exchange students must have prior approval of their campus advisers to enroll in graduate courses at another University of Missouri campus.

### Continuing Education-Extension, Institute, and Workshop Students

Students holding bachelor's degrees (or such qualifications as may be determined by workshop or institute directors) may participate in extension courses, institutes, and workshops. Credit granted for this participation is subject to the limitations set forth under graduate institutes and graduate workshops in *Regulations, Policies, and Procedures of the Graduate School*.

Participation in such programs is not to be construed in any way as admission to a graduate degree curriculum or a guarantee of graduate credit at another university.

### Unclassified Students

Students denied admission to the Graduate School may request admission to the University as unclassified students (not a Graduate School classification). These students do not meet the standards of regular, restricted, or special, nondegree students and do not earn graduate credit.

Unclassified students may not enroll in graduate courses. Any 300-level undergraduate work completed normally is not accepted as part of a graduate degree program.

The department or school may define remedial undergraduate programs to give students the opportunity to demonstrate their ability to enter graduate programs, despite unsatisfactory records. Such remedial programs require some discriminating measures of performance and ability. Completion of such a program provides the University with additional information for the decision process and is not a substitute for regular standards of admission.

### Foreign Students

Students must be competent in both written and spoken English; facility of the language cannot be gained at the same time that serious study is undertaken. Submission of TOEFL scores is strongly advised for students whose first language is not English. When it is not possible for a student to take the TOEFL examination for reasons more fundamental than personal convenience, the department to which the student has applied may develop alternate ways for the particular student to demonstrate English language competency prior to admission with the approval of the Graduate Dean. (See "Undergraduate Study Academic Policy: Foreign Students" for further information.)

Students from abroad who wish to study at UMSL are welcome. However, we advise that we are a nonresident campus designed to serve a population of local students. Accordingly, we have no campus housing. A good deal of housing is available in the community. Students must make their own living arrangements, although some assistance in locating housing is available through the office of the dean of Student Affairs. Public transportation is available to some extent.

Married foreign students with families should appreciate that the cost of living is high and part-time work is hard to find. Medical expenses may appear high. While some scholarships are available, most are intended for United States students.

## Graduate Study

Foreign students are urged to take all these considerations into account before applying for admission. Once accepted they are welcome members of our campus community.

### Enrollment

#### Undergraduate Students

Undergraduate students with exceptional records at UMSL may be enrolled in graduate-level classes in the last year of their undergraduate programs. Graduate credit for such course work is given only if each course is approved in advance by the Graduate School on the recommendation of the department or school involved. To receive credit, students must be registered in the Graduate School and must meet the requirements of their undergraduate college or school.

Students graduating with an excess of undergraduate credits without having registered in the Graduate School do not subsequently receive graduate credit for that work. The same credits may not, in any case, be applied to both undergraduate and graduate programs.

#### Intercampus Exchange Program

Graduate students in good standing at any University of Missouri campus are normally permitted to enroll in graduate courses at UMSL as nonmatriculating graduate students. Separate applications must be filed every semester and approved by the student's adviser, the Graduate School, and the UMSL admissions office. Application forms are available from graduate offices on students' home campuses.

#### Inter-University Agreement Program

Regularly admitted graduate students are permitted to take a course not offered by UMSL at Washington and St. Louis Universities under an agreement among the three institutions. Students pay UMSL fees and enroll through the UMSL Registrar. For details consult departmental Graduate Advisers.

#### Postdoctoral Study

Individuals with doctoral degrees and similarly qualified persons wishing to pursue special studies at UMSL may be appointed postdoctoral research fellows or visiting fellows by the Graduate School dean on the recommendation of the appropriate University division. Such appointments normally include the right to use University facilities. Inquiries should be addressed to the Graduate School, appropriate department chairperson, or faculty member.

### Registration

#### Permit to Enroll

New students qualified for admission to the Graduate School are issued permits to enroll and registration packets. Subsequently, registration materials are made available each term as long as students remain in good standing.

To remain in good standing, students must enroll during at least one term each calendar year. Students failing to do so, are removed from the Graduate School enrollment list unless they have been granted leaves of absence. In some programs,

students may be required to enroll each term. Students discharged from the Graduate School or a graduate program who wish subsequently to continue must submit new admission applications.

#### Preregistration

Enrolled students may preregister for the next term during regular preregistration periods, usually held in November and April. Registration is not complete until all University fees are paid. Students who preregister must pay their fees by announced deadlines or their registration is canceled. Special, nondegree students and individuals who have graduated are not allowed to preregister.

#### Maximum Course Load

The normal full-time course load for a regular semester shall be between nine and fifteen hours, with the maximum to be determined by the individual department or school. For an eight-week summer session it shall be two courses, totaling no more than eight semester hours. Three hours is the maximum load during intersessions.

Graduate students who are employed full-time may not register for more than 6 hours. Students employed part-time must adjust their course loads according to the number of hours employed. Students may either work full-time or carry a full load of courses, but not both.

#### Petitioning Into or Out of a Course

Students must receive the approval of their advisers and the Graduate School dean to enroll in or withdraw from a course after registration.

#### Entering a Course in Progress

Students wishing to enter a course in progress must have the approval of the instructor, their adviser, and the graduate dean. Only under exceptional circumstances may students enter courses after the first week of the semester.

#### Dropping a Course

With the approval of their advisers and the Graduate School dean, students may drop courses before the end of the fourth week without receiving grades.

At the end of this period and until the end of 12 weeks (or from the third through the sixth weeks of the summer session), students may withdraw from courses with "Excused" grades providing they are passing the course and have the approval of the instructor, their adviser, and the graduate dean. Otherwise, a grade of F is given. Any students who stop attending classes without officially dropping courses also receive grades of F.

### Academic Policy

#### Course Level

In most degree programs the bulk of required course work must be taken at the 400 level. In all programs, at least one-half must be at the 400 level, while other courses may be taken at the 300 level.



## Graduate Study

In exceptional cases, with the adviser's permission, students may receive graduate credit for 200-level courses, taken in a department other than the one offering their degree program.

### Institute and Workshop Courses

Institute courses will carry graduate credit at the level they are designated (200, 300, or 400). Institute courses may be included as part of the degree program with the prior approval of the adviser, department chairperson, and graduate dean. However, they do not count toward the residency requirement. Institute credit, together with all other nonresident credit, may not exceed one-third of the required program hours.

### Foreign Language Requirement

The Graduate School does not have any general foreign language requirements for advanced degrees. Where departments or schools establish levels of competence in one or more foreign language, that competence shall be shown in **one** of the following ways, as determined by the department or school:

- 1 An examination given by the department or school.
- 2 Graduate School Foreign Language Test.
- 3 Satisfactory completion of a language course at a specified level.

Evidence that the foreign language requirement has been satisfied shall be presented to the Graduate School in each case.

### Grading Standards

Grades in all courses carrying graduate credit are reported as A, B, C, or F. Graduate credit is not given for work taken pass-fail.

The grade of A is awarded for work of outstanding merit, B for work that is entirely satisfactory, and C for work that is acceptable only to the limited extent of fulfilling advanced degree requirements. The grade of D is considered failing at the graduate level and is therefore not used for graduate students. A grade of A is assigned 4 points; B, 3 points; C, 2 points; and F, no points. The pass-fail grade option is not available to students taking 400-level courses or 300-level courses for graduate credit. Students may enter courses as Auditors but may not change from Audit to credit after registration closes. Auditors are charged full fees and receive no academic credit.

Delayed grades may be given when a student's work is incomplete but otherwise worthy of credit. Delayed grades must be removed within two regular semesters after the time recorded or they automatically become F grades. In such cases, course instructors may subsequently change F grades to other grades when all work has been completed. Delayed grades recorded for courses in thesis or dissertation research are left as delayed grades until the final, regular grades are reported by the instructor.

### Probation and Dismissal

Graduate students enrolled in degree or certificate programs

must maintain at least a 3.0 grade point average in all courses for which graduate credit is given. Students cannot graduate with less than a 3.0. Students whose grade point averages fall below this standard are placed on probation; students with averages below 2.0 are dismissed from the Graduate School. Upon the recommendation of the School or department, students may also be dismissed on the following conditions:

- 1 If their grade point averages fall below 3.0 when two-thirds of the required hours are completed.
- 2 If they have been on probation two or more semesters and the department or School concludes that they are not making acceptable progress toward a degree.

Special nondegree students must maintain the same standards required of students enrolled in degree or certificate programs. Upon recommendation of the school or department, special, nondegree students may be dismissed if their grade point averages fall below 3.0. They are dismissed if their grade point averages are below 3.0 at the end of 12 completed hours of study.

### Grade Point Average Calculation

Only work taken while students are enrolled in the Graduate School is included in the grade point average. Neither extension work, institutes, or workshops, nor courses transferred from other universities or University of Missouri campuses are included, even though the course may be included as part of the degree program. Graduate work taken for graduate credit by undergraduate students who have been dually enrolled is included.

All graduate-level courses are included in the grade point average, including courses which may not be part of the degree program. This includes all 300- and 400-level courses unless they are designated, in advance, "not for graduate credit." Courses at the 200-level are not included unless they are designated, in advance "for graduate credit." Courses numbered 0 to 199 are not included. The grade point average that is calculated to qualify for graduation is based on the courses proposed in the degree program.

### Withdrawal from the University

Withdrawal from the University is arranged through the admissions office. Students leaving the campus before the completion of the semester or session, **without formally withdrawing**, are given grades of F in all courses.

### Leave of Absence

Graduate students who are forced to interrupt their studies for a period of one or more years should request a leave of absence from the University. In consultation with their department and adviser, students should define the program modifications the leave of absence requires. Requests should indicate the reason for leaving and the expected date of return to the University. Approval of the Graduate School is required. A leave of absence does not affect the maximum time limitation set for a degree program, unless a specific exception is approved.

# Graduate Study

## Master's Degree Requirements

The following requirements and regulations apply to all students admitted to master's degree programs. Each School, department, and area of concentration establishes its own requirements in addition to these. See the specific program description for additional requirements. Students are responsible for verifying that all requirements are met.

### Advisers

The chairperson or director of graduate studies in a student's major department or School assigns a graduate student to an appropriate adviser. Before each semester's registration, students must consult with their advisers regarding their programs and courses.

### Transfer of Credit

A minimum of 30 semester hours carrying graduate credit is required for every master's degree program. No degree credit is allowed for correspondence courses. Transfer credit will be granted only for regular courses for which a grade of A or B, or equivalent, was achieved. Credit may be granted for thesis work taken at another university to be incorporated into a doctoral degree program. Once admitted to the Graduate School, students must obtain departmental approval before enrolling in courses for transfer credit from other institutions.

Students who have completed course credits in certificate programs may transfer such credits into a master's degree program with the consent of the department or School, as long as the credits fall within the time limitations set for master's degrees.

### Residence Requirement

Students must complete at least two-thirds of the required graduate credit for a master's degree program in residence following admission to the program. Except with special permission, residence must be completed in the last two-thirds of the student's degree program.

No period of full-time graduate study is required by the Graduate School for master's degrees, although particular degree programs may establish full-time study requirements.

### Time Limitation

All work included in a master's degree program must be completed within six years after initial enrollment in the program. Graduate work completed outside the six-year period may not be included in the degree program. In connection with an authorized leave of absence, an exception to the time limitation may be approved.

### Filing for Degree Program

Before completing one-half of the required hours in a degree program, graduate students, in consultation with their advisers, should file a program of studies with the graduate dean. This program must be approved by the department or

School involved and the graduate dean. Graduate students whose degree programs require more than 40 credit hours must file a program before completing two-thirds of the work required.

### Thesis and Comprehensive Examinations

Although not a general Graduate School requirement, a thesis may be required by departments in particular degree programs. Where required, the thesis is directed by a three-member committee of graduate faculty appointed by the graduate dean on the recommendation of the department or School.

Comprehensive examinations, oral, written, or both, are required in most master's degree programs. Examinations are administered by a committee of not less than three graduate faculty members appointed by the graduate dean on the recommendation of the department or School.

### Dual Master's Degrees

With approval of the department or School and the graduate dean, students who have completed one master's degree may transfer appropriate credits to a second master's degree program. The number of transferable credits may not exceed one-third of the credit hours required by the second program; subsequent transfers to a third degree are not permitted.

With approval of the departments or Schools involved and the graduate dean, students may simultaneously pursue two master's degrees under the following conditions:

- 1 No more than ten credit hours may be overlapping or common to both programs.
- 2 Students must obtain approval of the departments, Schools, and program advisers from both areas before they have completed 12 hours in either program.

## Doctoral Degree Requirements

The doctoral degree is based on evidence that candidates have achieved a high level of scholarship and proficiency in research. The proficiency of students and their ability to work independently are established by a series of qualifying and comprehensive examinations and by the quality of their dissertations.

### Cooperative Programs

In addition to the doctoral degree programs offered at UMSL, limited opportunities exist for work in programs at other University of Missouri campuses. Specific inquiries should be directed to the chairperson of the appropriate department.

### Advisers

After admission to the Graduate School, students intending to qualify for the doctorate should so inform the department chairperson or division dean in the student's area of specialization. Upon acceptance by the appropriate area as an applicant for the doctorate, students, in consultation with the appropriate chairperson or dean and with the concurrence of the graduate dean, select advisers to assist in planning the



## Graduate Study

program. The graduate dean appoints the adviser and notifies all concerned.

### Residence Requirement

Minimal residence requirements for the doctoral degree are the equivalent of at least three academic years of full-time advanced study beyond the bachelor's degree. Additional requirements may be set at the department's discretion. Residence requirements may be fulfilled with part-time enrollment. At least two consecutive semesters of full-time residence work (nine hours or more each semester) on the UMSL campus must be included in the last two-thirds of the program. Summer-session work does not meet this requirement.

On recommendation of a department, the course credits of a master's degree may be counted as the first year of graduate study leading to doctoral degrees, but they will not meet the residence requirement at that level. When students present two master's degrees, relevant coursework may be selected for credit, bearing in mind the eight-year regulation on recency of transferred courses. In the case of transferable credit associated with both degrees, the relevant consideration is the quality and level of work—that is, doctoral-oriented courses, qualitatively distinguishable from introductory graduate courses, may be recommended. The majority of credits used to satisfy requirements for a doctoral degree must be completed at UMSL. For example, for a doctoral degree requiring 90 hours of work beyond the bachelor's degree, at least 46 hours must be taken at UMSL, including dissertation credit.

Doctoral degree work must be completed within eight years of admission to pre-candidacy on the campus.

### Qualifying Examination

Upon the student's completion of approximately one year of residence requirements, the appropriate chairperson or dean and advisers may recommend to the graduate dean that the student be allowed to pursue work toward the doctorate as a precandidate doctoral student. Such recommendations may be based upon a qualifying examination as well as the student's academic record and personal program. At this time the student, with approval of the chairperson or dean and adviser, files a detailed program (excluding the dissertation topic) with the graduate dean. After approval, copies are filed with the student, their adviser, departmental chairperson, and divisional dean.

### Advancement to Candidacy

When students have completed the major portion of the doctoral program and fulfilled language or research skill requirements established by the department, they may be eligible for advancement to candidacy for the doctoral degree. Advancement is based upon an examination or series of examinations administered by the department under the graduate dean's supervision. Examinations may be written, oral, or both. Upon successful completion, applicants are advanced to candidacy by the graduate dean on the department's recommendation.

### Dissertation Proposal

At a time appropriate to the pattern of study, students are to file their dissertation proposals with the graduate dean, using the appropriate forms. After acceptance of the proposal, Ph.D. thesis research or dissertation credit may be earned.

When students are advanced to candidacy, they remain in continuous enrollment until the degree is awarded or until the eight-year limitation has been reached. If students are actively engaged in degree work on campus, they shall enroll for credit commensurate with this activity. If away from campus, students shall enroll for at least one credit hour each semester and summer term.

### Dissertation Committee

After acceptance as candidates, students, in consultation with their advisers and appropriate department members, ask the graduate dean to appoint the dissertation committee. The committee consists of four graduate faculty members, including one member outside the discipline involved. Dissertation committee members are selected by students and their advisers in consultation with the department and with the concurrence of the graduate dean. The dissertation director must be a doctoral faculty member.

### Dissertation and Final Examination

One copy of the dissertation, certified as complete and provisionally acceptable by all dissertation committee members, must be submitted to the Graduate School at least six weeks before commencement. The graduate dean may assign the dissertation to other readers, on or off campus, or seek such other advice as the dean feels pertinent.

Upon preliminary acceptance of the dissertation, the Graduate School dean appoints the Defense of Dissertation Committee to conduct final examinations. The dean appoints members of the dissertation committee and such other members of the graduate faculty as seem appropriate to the Oral Examination Committee.

**Candidates** must submit an abstract of their dissertation to the Graduate School **one month before the oral examination**.

At least six weeks **prior to graduation**, candidates for doctoral degrees are required to submit to the Graduate School one copy of the dissertation and abstract. The abstract should not exceed 350 words in length.

The Defense of Dissertation Committee certifies the final acceptability of the dissertation to the graduate dean on the basis of a final examination open to all graduate faculty members. Students are eligible for graduation upon receipt of Form I-17 in the Graduate Office.

## Graduate Study

### Probation and Dismissal

Students are subject to dismissal if any of the following conditions exist:

- 1 Failure to pass appropriate departmental cumulative examinations.
- 2 Failure to complete the required doctoral program work within eight years of the date of admission to precandidacy.
- 3 Failure to remove deficiencies indicated by placement examinations by the end of the second year.

A grade point average of 3.0 is required to graduate, but the essence of advanced graduate work is quality. Accumulation of graduate hours should not be confused with the demonstration of quality scholarship expected by the graduate and doctoral faculties and the Graduate School.

### Graduation

Candidates for the doctoral degree ordinarily attend Commencement.

## Fees for Graduate Study

Detailed information regarding current fees and residency regulations is furnished in the *Schedule of Courses*, a newspaper schedule, distributed before each semester registration, and the pamphlet, *Tuition and Residency Rules*, available at the cashier's office. Students should be aware that fees shown are current as this publication goes to press, but fee changes may occur while this *Bulletin* is still in use.

The University reserves the right to change fees and other charges at any time without advance notice.

### Payment of Fees

All University fees must be paid in full at the time of registration as a condition of admission to classes. Students who preregister and do not pay fees by the announced deadline will have their registration cancelled and be required to register again and pay fees during the regular registration period. Registration is not complete until all fees are paid; partial payment or deferment of fees cannot be honored.

Courses taken as an auditor or for reduced credit are counted at their normal credit value in computing the fees to be paid. Students enrolling in zero credit courses are also required to pay fees according to the equivalent course credit.

### Personal Checks

Personal checks in payment of fees or other obligations to the University will be accepted only when the amount of the check does not exceed the amount due from the student.

A student presenting a check to the University in payment of student fees which is returned unpaid and remains unpaid after the close of regular registration period, shall be considered a **late registrant** and shall pay a late registration fee, equal to the incidental fee for one credit-hour.

Valid MasterCard or VISA credit cards are accepted.

### Delinquent Indebtedness

All delinquent indebtedness to the University must be cleared before transcripts or diplomas will be released.

### Late Registration Fee

Students registering after the close of the regular registration period must pay the **late fee equal to the undergraduate incidental fee for one credit-hour**.

### Incidental Fees (1985-86)

All students enrolled in the University must pay an incidental fee as follows:

#### Graduate Students

**Regular Semester** (Effective Fall, 1985)  
\$884.10 for 14 or more credit hours

**Summer Session** (Effective June 10, 1985)  
\$442.05 for 7 or more credit hours

For other sessions not specified or for partial enrollment the incidental fee is calculated at \$63.15 per credit hour.

### Nonresident Tuition Fee (1985-86)

Students who do not meet the residency requirements must pay the nonresident tuition fee as listed below, **in addition to the appropriate incidental fee**. A definition of "residency" is outlined in the *Tuition and Residency Rules*, available in the cashier's office. Students are responsible for registering under the proper residence and paying proper tuition fees. They are also responsible for raising any questions if there is a possibility that they are subject to the nonresident fee. The nonresident fee is charged as follows:

#### Nonresident Graduate Students

**Regular Semester (Effective Fall, 1985)**  
\$1512 for 14 or more credit hours

For 1 to 6 credit hours, the nonresident tuition fee will be waived through the Nonresident Assistance Program. See Financial Assistance, page 36.

**Eight-Week Summer Session (Effective June 10, 1985)**  
\$756 for 7 or more credit hours

For 1 to 3 credit hours, the nonresident tuition fee will be waived through the Nonresident Assistance program. See Financial Assistance, page 36.

For other sessions not specified or for partial enrollment the nonresident tuition is calculated at **\$108 per credit hour**.

### Other Fees

Graduate students should refer to the "Undergraduate Study: Fees" section of this *Bulletin* for information on University fees applicable to all students, such as the University Center and Student Activity Fee.

## Graduate Study

### Refund of Fees

Students who officially withdraw from the University or drop courses for which they have paid fees during either the regular semester or other sessions will receive a refund in accordance with the schedule explained in the section "Undergraduate Study: Fees" under the heading Refund of Fees. Graduate students should refer to this section for such information.

### Final Semester Incidental Fee

Candidates for graduate degrees who have completed degree requirements except for filing a thesis or dissertation and/or taking the final examination must register for at least one credit in the term in which they expect to receive the degree. Only students so registered may file applications for graduate degree.

### Thesis and Dissertation Fee

Graduate students must also pay a fee for the binding and microfilming of the thesis or dissertation.

## Financial Assistance

### Teaching Assistantships

Most departments with established graduate programs offer teaching assistantships to qualified graduate students. Appointments are usually half-time appointments and carry stipends. Students receiving assistantships are expected to pay all incidental fees, but are exempt from the nonresident tuition fee. Normally students with these stipends register for nine hours each semester.

Teaching assistant appointments are made directly by the departments, and inquiries and applications should be addressed to the Graduate Studies Coordinator of the appropriate department. Applications should be submitted no later than March 15 for the fall term. Occasionally a few teaching assistantships are available for the winter term. Interested students should contact the appropriate department.

Since some departments observe different deadlines, applications should be submitted as early as possible. Appointments are normally announced by April 1 for the fall term and by November 1 for the winter term.

### Research Assistantships

A small number of research assistantships are available in some departments and Schools. Appointments are made by the Graduate School on the recommendation of the appropriate division. Conditions of appointments are generally similar to those of teaching assistantships. Inquiries should be addressed to the department or School.

### Fellowships and Scholarships

A small number of doctoral fellowships may be available for graduate students. In addition, certain departments or divisions have available a limited number of traineeships or fellowships. For information consult the appropriate department.

### Other Graduate Financial Aid

Graduate students may apply for both the National Direct Student Loan and the College Work-Study Program as well as the Federally Insured Student Loan Programs. Students who have earned their first baccalaureate degree are no longer eligible for federal and state grant programs. For information on the Loan or Work-Study Programs or for additional financial aid information or consumer information, contact the Office of Student Financial Aid.

### Nonresident Assistance Program

This program is applicable to all nonresident students originally enrolled and remaining enrolled for 6 hours or less during regular semesters and for 3 hours or less during the eight-week summer session. The fee statement will be reduced by the amount of the award which will equal nonresident tuition fees for the qualifying number of hours.

# Confidentiality Policy

## *The Family Educational Rights and Privacy Act of 1974*

These statements are set forth as guidelines and procedures to implement the University of Missouri policy on Student records developed from The Family Educational Rights and Privacy Act of 1974.

The University of Missouri-St. Louis as charged in the Act will annually inform its eligible students by including in the *Student Handbook*, the *Schedule of Courses*, and the *UMSL Bulletin* and the *Current* (student newspaper) the following information:

**1** "Education Records" are those records, files, documents, and other materials which contain information directly related to a student and are maintained by the University. Those records, made available under The Family Educational Rights and Privacy Act of 1974, are student financial aid, the student's cumulative advisement file, student health records, disciplinary records, the admissions file, and the academic record.

Confidential letters and statements of recommendation which were placed in student credential folders at the Office of Career Planning and Placement after January 1, 1975, are also made available, if the student has not waived the right to view these recommendations.

The University of Missouri-St. Louis "Education Records" do not include:

- (a) Records of instructional, supervisor, and administrative personnel and educational personnel ancillary thereto which are in the sole possession of the maker thereof and which are not accessible or revealed to any other person except a substitute.
- (b) The records and documents of the University of Missouri Police Department that are maintained solely for law enforcement purposes and are not available to persons other than law enforcement officials of the same jurisdiction.
- (c) In the case of persons who are employed by the University but who are not in attendance at the University, records made and maintained in the normal course of business which related exclusively to such persons and that person's capacity as an employee where the records are not available for any other purpose.
- (d) All records on any University student which are created and maintained by a physician, psychiatrist, psychologist, or other recognized professional or para-professional acting in his professional or para-professional capacity, or assisting in that capacity, and which are created, maintained, or used only in connection with the provision of treatment to the student, and are not available to anyone other than persons providing such treatment, provided, however, that such records can be personally reviewed by a physician or other appropriate professional of the student's choice.

**2** The University of Missouri-St. Louis recognizes "Directory Information/Public Information" to mean a student's name, address, telephone listing, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended by the student. All students must inform the Office of Admissions and Records before the end of the two-week period following the first day of classes that any or all of the information designated as directory information should not be released without the student's prior consent. The information listed above will become directory information or public information as of the first day of classes following the end of the two-week period in a regular semester and the first day of classes following the end of the one-week period during the Summer Session.

**3** University of Missouri-St. Louis students have access to the educational records identified in Paragraph 1 above. In accordance with Pub. Law 93-380 as amended, the University of Missouri-St. Louis will not make available to students the following materials:

- (a) Financial records of the parents of students or any information contained therein.
- (b) Confidential letters and statements of recommendation which were placed in the education records prior to January 1, 1975, if such letters or statements are not used for the purpose other than those for which they were specifically intended.
- (c) Confidential recommendations respecting admission to the University, application for employment and receipt of honor, or honorary recognition, where the student has signed a waiver of the student's rights of access as provided in 6.0404, the *University Policy on Student Records*.

**4** The director of Financial Aid, the appropriate academic dean, the co-ordinator of the Student Health Service, the dean of Student Affairs, the director of Career Planning and Placement, the director of Admissions, and the registrar are the officials responsible for the maintenance of each type of record listed in paragraph 1.

**5** Any student may, upon request, review his or her records and, if inaccurate information is included, may request the expunging of such information from his file. Such inaccurate information will then be expunged upon authorization of the official responsible for the file.

**6** Students desiring to challenge the content of their record may request an opportunity for a hearing to challenge the content of his or her educational record in order to insure that the record is not inaccurate, misleading, or otherwise in violation of the privacy or other rights of the student, to provide an opportunity for the correction or deletion of any such inaccurate, misleading, or otherwise inappropriate data contained therein, and to insert into such records a written explanation respecting the content of such records.

**7** The University official charged with custody of the records will attempt to settle informally any disputes with any student regarding the content of the University's educational records through informal meetings and discussions with the student.

**8** Upon request of the student or the University official charged with custody of the records of the student, a formal hearing shall be conducted as follows:

- (a) The request for a hearing shall be submitted in writing to the campus chancellor who will appoint a hearing officer or a hearing committee to conduct the hearing.
- (b) The hearing shall be conducted and decided within a reasonable period of time following the request for a hearing. The parties will be entitled to written notice 10 days prior to the time and place of the hearing.
- (c) The hearing shall be conducted and the decision rendered by an appointed hearing official or officials who shall not have a direct interest in the outcome of the hearing.
- (d) The student shall be afforded a full and fair opportunity to present evidence relevant to the hearing.
- (e) The decision shall be rendered in writing within a reasonable period of time after the conclusion of the hearing.
- (f) Either party may appeal the decision of the hearing official or officials to the campus chancellor. Appeal from the chancellor's decision is to the president. Appeal from the president is to the Board of Curators.



## Confidentiality Policy

**9** The University of Missouri-St. Louis will mail grade reports only to a student's permanent mailing address. Grades will not be mailed to parents unless the students in question have completed the necessary authorization in the registrar's office.

**10** The University of Missouri-St. Louis may permit access to or release the educational records without the written consent of the student to the parents of a dependent student as defined in Section 152 of the Internal Revenue Code of 1954.

**11** If any material or document in the educational record of a student includes information on more than one student, the student may inspect and review only such part of such material or document as relates to him or her or to be informed of the specific information contained in such part of such material.

## Provisions for Auxiliary Aids and Services to Disabled Students

The University of Missouri is committed to equal educational opportunities for qualified students without regard to physical ability or condition. The University, therefore, will take necessary action to ensure that no qualified disabled student is denied access to any particular course or educational program because of the absence of auxiliary aids for those with impaired sensory, manual, or speaking skills. Such action includes an assessment of the student's abilities and an evaluation of the requirements of the particular course or program.

If the University determines that some type of auxiliary aid is required, it will assist the qualified disabled student in obtaining the necessary auxiliary aid from other sources. If the necessary auxiliary aid is not available from other sources, the University, at its option, shall provide the necessary auxiliary aid or reimburse the student for the reasonable cost of the necessary auxiliary aid.

Requests for the assessments must be made to the coordinator for disabled students no later than six weeks prior to the beginning of the next semester. If an unfavorable determination is made, the student may appeal the decision. See Discrimination Grievance Procedure, Appendix.



## UMSL Libraries

### Librarians

**Ronald Krash**, Director

M.L.S., Wayne State University

**Mushira Haddad**, Head, General Services

B.A., American College

**Charles Hamaker**, Head, Collection Development

M.A., M.L.S., Brigham Young University

**Barbara Lehocky**, Head, Reference Services

M.A.L.S., University of Missouri-Columbia

**Frank Sadowski**, Head, Bibliographic Services

M.L.S., Rutgers University

**Virginia Workman**, Head, Education Library

M.A.L.S., University of Missouri-Columbia

**Mary Doran**, Reference Librarian

M.L.S., University of California-Los Angeles

**Rina Krasney**, Reference Librarian

M.L.S., Rutgers University

**Michael Montgomery**, Reference Librarian

M.A., M.S.L.S., University of Illinois-Champaign

**Frank Pershe**, Cataloging Librarian

M.S., M.L.S., Case Western Reserve; Ph.D., University of Munich

**Thomas Rick**, Original Monograph Cataloger

M.L.S., University of Illinois Urbana-Champaign

**Mark Scheu**, Reference Librarian

M.A., M.S.L.S., University of Illinois-Champaign; A.B.D. University of Kansas

**Sandra Snell**, Reference Librarian

M.S., M.S.L.S., University of Illinois-Champaign

**Nancy Zander**, Reference Librarian

M.A.L.S., University of Missouri-Columbia

UMSL Libraries support the educational objectives of the University and meet the informational needs of the campus community. Housed in two locations—the Thomas Jefferson Library, on the main campus, and the Education Library, at the South Campus Complex—the Libraries' collections consist of over 400,000 volumes, including 4000 periodical subscriptions, more than 200,000 U.S. Government documents, and some 1,000,000 items in microform.

Materials from other University of Missouri libraries are available through the Interlibrary Loan Service. Faculty and graduate students engaged in research can request materials from other libraries across the country through this service. An automated data-base retrieval service also is available to UMSL students and faculty.

The libraries are open more than 70 hours per week during regular sessions. Specific hours for various library services are posted in both libraries.

### Health Sciences Library

**Cheryle Cann**, Librarian

M.A.L.S., University of Missouri-Columbia

The Health Sciences Library is located on the South Campus in Building 18. This library serves the School of Optometry and the School of Nursing as well as the rest of the UMSL faculty, students and staff. All library services are offered.

### Archives and Western Historical Manuscript Collection

#### Archivists

**Anne R. Kenney**, Associate Director, Joint Collection Western Historical Manuscript Collection and State Historical Society of Missouri Manuscripts, Associate Archivist

M.A., University of Missouri-St. Louis; M.A.L.S., University of Missouri-Columbia

**Patricia L. Adams**, Senior Manuscript Specialist

M.A., University of Missouri-St. Louis

The Archives contains official records, campus publications, student newspapers, photographs and other material on the history of UMSL. The Western Historical Manuscript Collection contains primary source materials for research in many fields, including local history, the environment, women's history, politics, and black history. The Collection is open to the UMSL community and the general public. Material from the other three campuses may be loaned for research use at UMSL. Located on Level II in the Thomas Jefferson Library, the office is open for reference service daily from 8 am to 5 pm and until 9 pm on Tuesday. Acquisitions are grouped into two sections: the University Archives, which includes official campus correspondence and publications, tapes, and photographs telling the history of UMSL; and the Western Historical Manuscript Collection, part of the Joint Collection of the University of Missouri and State Historical Society, which consists of primary source materials for research in the history of Missouri and St. Louis.

The manuscripts division also acts as a resource center, duplicating for use, in either graphic or tape-recorded form, many of its holdings. Copies of photographs in the collections are loaned to patrons, although most archival and manuscript material does not circulate.

### Library Science Studies

The UMC-Extension Division offers courses in the St. Louis area toward a master's degree in library science and/or certification for school librarianship. For information, contact the Graduate School of Library and Information Sciences, 104 Stewart Hall, Columbia, MO., 65201.

## University Center

The University Center houses University food services, an information and ticket desk, the Bookstore, University Center and Student Activities administrative offices and meeting rooms. There are also a typing room, student government offices, and the Black Culture Room. Lounge space provides a comfortable environment for relaxation or study and a TV room and amusements area provide places for recreation.

### University Center Funding

At UMSL, as is the case with the majority of universities and colleges, students themselves made the financial commitment necessary to construct the University Center and administer its functions. Every semester a University Center fee is collected from each student. This money is used to retire the bonds which were originally sold to raise the \$2,000,000 spent in construction. In addition, some money is spent on administering the facility and some is set aside for major repairs and replacements. (All student money collected for the building is used to support it.) The revenue-producing areas (food services and bookstore) are self-supporting operations whose excess income (if any) contributes to the improvement of the facilities and services.

### Food Services

The University Center's dining area features a "food market" or "scramble-type" food service in the lower level *Underground*, offering customers a complete menu selection ranging from popular fast-food items to hot meal service, between the hours of 7:30 am and 6:30 pm, Monday through Thursday, and 7:30 am to 2 pm on Friday. The upper level is designed as a comfortable lounge-dining area, with vending service available for those seeking snacks or beverages, including late-night and weekend customers.

A cafeteria in the Marillac Hall provides snacks and meals for students and staff at the South Campus Complex from 8:30 am to 6:30 pm, Monday through Thursday, and 8:30 am to 2 pm on Friday.

Complete catering services are also available and may be arranged through the campus reservations office in the University Center.

### Information Services

Student information services are located at the Information Desk in the University Center lobby. UMSL students staff the desk from 10 am to 2:00 pm weekdays, providing information and referral services to the community. In addition, tickets for on-campus and selected off-campus events, and weekly bus passes may be purchased at the desk. The campus Lost and Found department is also at the Information Desk. Persons with questions about campus activities and services are invited to call 553-5148 or stop by the desk.

### Hotline

"Hotline" is UMSL's 24-hour system of recorded phone messages describing campus activities. Students can use red Hotline phones in buildings on campus to dial the Hotline numbers or to call campus offices. Hotline phone numbers are: 5865, campus films; 5867, a daily menu of special items served in University Center Food Services; and 5148, direct line to the Information Desk. To reach any of these numbers off-campus, dial the University exchange (553) before each extension.

Each of these Hotline phone numbers is also used to inform the University community concerning suspension of campus operations and/or cancellation of classes during periods of severe winter weather. Call for this information after 6 am.

### Audiovisual Services

The University Center can provide audiovisual equipment for student organizations and campus departments scheduling events in the University Center and J.C. Penney Building. Equipment includes 16mm, slide, and overhead projectors; record players; lecterns and portable sound systems. Experienced operators are also available for an additional charge.

### Bookstore

In addition to the programs and services listed above, the Bookstore is located in the University Center and is headquarters for ordering and selling textbooks and supplementary reading materials, including paperback books. The Bookstore also sells class and study supplies, college jewelry, and insignia items. Commencement announcements, caps, and gowns are ordered through the Bookstore.

## Student Activities

### Organizations

Students interested in performing on-stage, writing for the *Current*, checkmating a challenger, floating scenic streams, caving, backpacking, or pursuing other special interests can join one of the 100 student clubs and organizations. Information concerning recognized department clubs, fine arts groups, fraternities and sororities, religious organizations, and special interest groups may be obtained from the Student Activities Office in room 250 University Center. Winter and spring ski trips are also sponsored through Student Activities.

### Cultural Opportunities and Entertainment

The Student Activities Office works with the student University Program Board and the faculty Concerts and Lectures Committee in planning a variety of cultural and social activities. These programs are subsidized by student activity fees and by the University. Information can be obtained at 553-5536 or by coming to room 250 University Center.

### Program offerings include:

**Concerts**, including weekend evening concerts, for a reasonable admission, featuring recent performances by Jeanne Trevor, the Muir String Quartet, Viktoria Mullova, and Dizzy Gillespie.

**Lectures** by such personalities as G. Gordon Liddy, Dr. Ruth Westheimer, Dick Gregory, and James Doohan.

**Film series** for the University community featuring weekend showings of contemporary films at a nominal fee.

**Theatre**, including performances by such professional theatre companies as England's Royal Shakespeare Company and the Young Vic.

**Wednesday Noon Live**, featuring St. Louis talent from 11:30 am to 1:30 pm Wednesdays in the University Center.

### Transportation Services

The Office of Student Activities coordinates a computer-match car pool service, a shuttle bus service from South City and South County, and a series of student-operated van pools. Those students interested in ride-sharing or requiring transportation are invited to drop by 250 University Center or call 553-5536 for information.

### Housing Referral

The Office of Student Activities maintains a list of available apartments, rooms, and flats in the North County area. Lists of persons requesting roommates are also available.

### Mimeograph and Xerox Service

Quality xerox and mimeographing services, including electric stencil-cutting, are provided at reasonable rates in the Student Activities Office. Call 553-5536 for information.

### Black Culture Room

The Black Culture Room, located in room 254 University Center, houses a tutorial service and is equipped with a study area and lounge. Sponsored by the Associated Black Collegians, the room is called "Umajaa," an African word meaning brothers and sisters working together. For more information, call the Black Culture Room at 553-5731.

## Student Affairs Office

The Office of the Vice Chancellor for Student Affairs is in 301 Woods Hall and offers students a wide variety of services. The office provides a New Student Orientation program each semester so students can become acquainted with each other and the campus. The office is also responsible for disciplinary matters. The Coordinator for Disabled, Minority and International students is located in this office. The coordinator provides information, guidance, referral services, and assistance in acclimation to the campus for these student groups. Arrangements and assistance in providing for the accessibility needs of students with both permanent and temporary disabilities are available through this office.

A C-Phone for the hearing impaired is located in 301 Woods Hall at 553-5212 and various items for disabled students' use are available in the special equipment room in the UMSL Library. Other auxiliary aids and services may be available to qualified disabled students. For more information, call the Coordinator for Disabled Students at 553-5211.

## Student Affairs Office

### Counseling

#### Counseling Service

The Counseling Service offers free professional assistance to students, faculty, and staff with personal, social, educational, or career concerns.

Services include individual and group counseling, a range of workshops with specific aims as well as interest testing and career development counseling. A well-stocked library of career-related materials and college catalogues is available. People may use the Career Library without appointment.

SIGI, a computer-based interactive guidance system for career exploration and decision-making, is also housed in the Counseling Service. SIGI may be used by appointment, without charge, by members of the UMSL community.

The Counseling Service receptionist will arrange a meeting with a staff member any week day from 8 am to 5 pm. In an emergency, however, students can be seen almost immediately. For more information, call 553-5711 or visit the Counseling Service Office at 427 SSB.

#### Peer Counseling

The goal of the Peer Counseling Center is to provide a place where students can get short-term assistance for a wide variety of personal and career concerns. Peer Counseling also offers rap groups, workshops, and films of interest to students. In addition, information and referrals are available for on- and off-campus services. All services are without cost to the student. The Counseling Center specially trains and supervises peer counselors. All contacts are completely confidential. For more information, call 553-5730 or 553-5711.

#### Women's Center

Located in 107A Benton, the Women's Center is a good place to go for coffee, conversation, studying or browsing. The Center is also a place to get support and assistance in coping with UMSL, help in doing research on women, and answers to questions about almost anything.

The Women's Center is governed by an elected board and is staffed by paid and volunteer student members in addition to a full-time coordinator. There are opportunities for students to get involved at all levels in the activities and work of the Women's Center. Students are encouraged to drop by, attend programs, or become volunteer staff.

The Women's Center offers: an information and referral service about women's activities, events, organizations, and services in St. Louis; support for mature students; programs on women's issues and career choices; a library of literature by and about women; and advocacy for women at UMSL.

The Women's Center is open full-time Monday through Friday, but hours vary by semester. For more information, call 553-5380.

### Career Planning and Placement

Students may call for a career-planning appointment (553-5111) or stop by the office in 308 Woods Hall and browse through the Career Information Library where job-related pamphlets, brochures, and much career information is available. Videocassette tapes on interviewing may be viewed upon request during office hours.

Service to graduating students and alumni registered with the office includes listings of immediate full-time positions as well as campus recruiting by representatives of business, government, and schools. Evening hours are 5 to 8 pm on Tuesday and Wednesday.

For students interested in employment while attending college, there are internships and co-op programs. Also, the Student Work Assignment Program (SWAP) section, 346 Woods Hall (553-5317) has part-time, summer, and full-time nondegree jobs that can help pay college expenses.

### Veterans' Affairs

The Veterans' Affairs Office in 346 Woods offers assistance in making the transition from military life to student life as easy as possible. The office is available to help veterans establish educational goals and to explain the special benefits available to veterans. Office hours are 8 am-5 pm on Monday, Thursday, and Friday, and 8 am-7 pm on Tuesday and Wednesday. A staff of peer counselors, female and male veterans, are available to help fellow veterans deal with school, drug, or housing problems; veterans' benefits; jobs; or any other problems they may encounter. The office also provides tutorial assistance and referrals for V.A. work/study employment. For more information, contact the Veterans' Affairs Office at 553-5315.

### Student Health Service

The Student Health Center, located in 127 Woods Hall, offers basic health services, screening and education. It is staffed with nurses, and there is no charge for services rendered. Referrals are made for treatment by a physician or for specialized or long-term care. The Health Center is open from 8 am to 9 pm, Mondays through Thursdays, and from 8 am to 5 pm on Fridays. Evening hours are in effect only when evening classes are in session.

For a medical emergency on campus, dial 5155 to summon assistance. A nurse and/or police officer will come to your aid.

Handicapped Parking Permits are issued by the Health Center upon presentation of a medical certificate verifying a disability. Auto license number and parking sticker numbers are necessary in order to process an application for Handicapped Parking.

Information and application and claim forms for the Student Accident and Sickness Insurance Plan are available at the Health Center. Claims, however, must be filed directly with the off-campus Insurance Company.

For further information: phone 553-5671



## Sports

### Intramural Sports

UMSL's intramural program is geared toward the interests of the entire University community. Students, faculty, staff, and alumni are encouraged to take active roles in the creation of new intramural programs.

Activities currently offered include touch football, basketball, volleyball, swimming ("Swim the Mississippi River Club"), racquetball, golf, tennis, bowling, softball, hoc soc, fun run, soccer, weight lifting, and white-water kayaking. For more information, call 553-5125.

### Intercollegiate Sports

A variety of intercollegiate sports is available for both men and women at UMSL.

Women's athletics is in its tenth year of intercollegiate competition and has already become one of the area's best. The program includes women's basketball, soccer, tennis, volleyball, softball, and swimming.

The men's varsity teams have a winning tradition and bring national visibility to the University. Four of the teams—baseball, basketball, golf, and soccer—have competed in national championship playoffs. Other teams include swimming, cross country, and tennis.

Intramurals and intercollegiate athletics are supported in part by student activity fees. UMSL students with validated IDs are admitted free to all home athletic contests.

### Facilities

The athletic and exercise areas in the Mark Twain Building are available for use by the University community at specified hours. During the regular semester, the building is open seven days a week and on specified evenings. Facilities include basketball, volleyball, badminton, and handball/racquetball courts, wrestling and dance room, and an Olympic-size swimming pool. A conditioning room for men and women includes individual weights as well as a universal weight machine. Outdoor facilities include baseball, softball, soccer, and intramural fields, and handball, racquetball, and tennis courts. For further information, call 553-5641.

## Student Government

**The Student Association**, the University student government, provides input in all aspects of University life, University affairs, and policy-making. The Association encourages students to govern themselves and to be responsible for their government and education. The Association works with members of the faculty and administrators to increase services to students, alumni, and residents of the metropolitan community and state.

The Association's activities range from investigating student grievances to proposing curriculum changes.

The legislative body of the Association is known as the Assembly. Representatives are selected from the student body on the basis of one representative for every 500 students enrolled by school, college, and major.

For more information, call 553-5104, or drop by 262 University Center.

**The Student Court** is appointed by the Student Assembly. The five-member Court makes recommendations to the dean of Student Affairs concerning traffic violations, adjudicates matters of grievance between individual students or groups of students, and conducts impeachment proceedings as delineated by the Student Association Constitution.

**The Evening College Council** serves the evening student body as a liaison between students, faculty, and administrators. It functions as a sounding board for Evening College students' ideas and interests and it coordinates social activities of special interest to evening students. Membership is open to all Evening College students who are in good standing. Applications are available in 324 Lucas Hall or from any council member. For more information, call 553-5161.

## Other Services

### University Senate

The Senate is the governing body for the campus, exercising the functions of the faculty and the student body as directed by the UMSL Bylaws. Twenty-five students and 75 faculty members are elected by their peers to the Senate which also consists of a number of administrators who serve as voting or *ex-officio* members by virtue of their positions. Much of the Senate business is carried out by committees. The standing committees to which students may be elected include: Committee on Committees, Executive Committee, Curriculum and Instruction, Admissions and Student Aid, Library, Welfare and Grievances, Student Affairs, Student Publications, Athletics, Fiscal Resources and Long-Range Planning, Urban Affairs, Physical Facilities and General Services, and International Studies. In addition, *ad hoc* committees are established as needed. For more information, call 553-5252, University Relations.

### Alumni Office

As today's students form the present University community, UMSL's alumni help shape UMSL's future by supporting necessary improvements. The Alumni Association and the Alumni Activities office in 426 Woods work together to promote UMSL and to establish mutually beneficial relations between the campus and its alumni. Membership in the association is open to graduates and former students.

The Alumni Association sponsors a scholarship fund for UMSL undergraduates, special funding of campus projects and a public resources program to obtain increased public support for the University. For more information, call 553-5776.

A newly refurbished Alumni Center across the street from the main campus entrance offers the University and its alumni a pleasant gathering place for parties and other social events. Contact the Alumni Office for further information.

### Gallery 210

Gallery 210 sponsors five major exhibitions yearly. These include professional work in all media and range from tribal to contemporary art. In conjunction with these exhibits, the Gallery frequently sponsors symposia, lectures, artistic demonstrations and other events which enhance the impact of the art work displayed.

Under the auspices of the art department, the exhibits offered by the Gallery meet the best of both educational and aesthetic standards and serve the visual interests of both the metropolitan community and the University's students and staff.

### Kammergild Chamber Orchestra

Kammergild was founded in 1978 by Lazar Gosman, who, with the encouragement of many friends, wanted to recreate in St. Louis an ensemble of the quality of the Leningrad Chamber Orchestra. The ensemble's members, consisting of a core of string players with winds, brass, percussion, and keyboard added as required, are drawn in most cases from the Saint Louis Symphony.

The organization has consistently won accolades for the excellence of its performances and is in its third season as orchestra-in-residence at the University. Maestro Gosman is also artist-in-residence in the music department.

### Police Department

The UMSL Police Department, located in the General Services Building, serves students, faculty and staff by providing year-round campus security. The UMSL police give emergency aid in the event of accident or illness. All incidents should be reported immediately to the police department, telephone 553-5155. This number is monitored 24 hours a day. Call for help or to report fire or any existing hazardous conditions. Emergency telephones on campus include the red "Hot-Line" phones which are located in every building and a number of outdoor emergency phones that connect directly to the police dispatcher.

Traffic regulation is also a responsibility of the UMSL police, including issuance of replacement parking stickers and daily parking permits. These permits may be picked up at the police department office. Informational booklets on traffic regulations and parking, as well as campus maps, tips on crime prevention, and other useful publications are available outside the police department office.

The department has an on-going registration program, offering bicycle registration tags to students, faculty and staff. A registration file with bicycle serial numbers and description is maintained for each registrant. Also available through the UMSL police is a deterrent to automobile theft whereby the police officers engrave the vehicle identification number (VIN) on the automobile's window.

The UMSL police report and investigate all crimes that occur on campus. The department has a crime prevention officer who conducts self-help programs throughout the year and makes security surveys to identify potential problems before a crime occurs.

## Specialized Centers and Facilities

### Center for Academic Development

The Center for Academic Development is an academic support program which focuses attention on the needs of UMSL students who may require some assistance in pursuing higher education. The Center is comprehensive in nature and consists of the following programs:

#### Special Services Unit:

##### Program for Disadvantaged Students

Provides supportive services which focus on the first two years; participants are chosen on basis of need, former academic preparation, achievement and motivation. Services include a summer challenge program, academic advising, counseling, and financial aid.

**Tutorial Lab** Student tutors, certified by the appropriate academic department, are available to give assistance in any discipline; times are arranged for mutual convenience of student and tutor. A lab fee is charged. Group tutorials also arranged for designated courses.

**Advisement** Offers academic advisement for students in choosing courses and outlining schedules. Other areas of advisement include finance and social welfare.

#### Mathematics Unit:

**Remedial Math Lab** Provides individual assessment and plan of instruction. Offers individual and small group instruction in Basic Mathematics.

**Developmental Math Lab** Provides individual assistance on a walk-in basis to students enrolled in college courses involving mathematical skills.

#### Communications Unit:

**Reading Lab** Offers services to all students, freshmen through graduates, in the areas of developmental reading and study skills.

**Writing Lab** Tutorial assistance in writing English prose. Students' writing needs are appraised and individual and small group instruction in sentence clarity, organization, development, and conventions of usage provided. Available materials include computer-assisted instruction, slide-tape programs, spelling and vocabulary tapes, and programmed texts. Instructors may arrange for lecture demonstrations in their classrooms.

For more information, contact the CAD office at 553-5194.

### Center for Business and Industrial Studies

The Center for Business and Industrial Studies is organized within the School of Business Administration for studying managerial problems and performing applied research. The Center operates on a not-for-profit basis to help organizations in our diversified business community understand the factors affecting their business environments and to enhance their productivity. University faculty, supported by a powerful computer system, statistical databases and sophisticated software, provide consultation in a wide variety of business applications. Studies are undertaken in marketing, human resources management, planning and business development, facilities location, distribution, and financial analysis. Through the Center, organizations can contract studies tailored to their specific needs. A brochure outlining the Center's services can be obtained by writing the Center for Business and Industrial Studies, School of Business Administration, UMSL, 8001 Natural Bridge Rd., St. Louis, MO 63121-4499, or by calling (314) 553-5857.

### Center for Economic Education

The Center for Economic Education is sponsored by the College of Arts and Sciences and the Continuing Education-Extension Division to support and enhance economic education. The Center provides in-service programs in economic education, working closely with local school districts to improve and evaluate present economics curriculum. The Center also promotes the goals of economic education among business, professional, educational, labor and other organizations and individuals in the St. Louis community.

### College At Home

The College-at-Home Learning Center at UMSL is part of the University of Missouri's program. It provides college courses to individuals who are unable to attend regular classes on the UMSL campus. The Learning Center is a place where students may view videotapes of course lessons, take exams and talk with instructors. Full-time UMSL employees may use educational assistance for this program. For more information on the College-at-Home Program, call the Learning Center at 553-5370 or toll-free 800-392-0536.

### Office of Computing and Telecommunications

Computing facilities on the four University of Missouri campuses provide powerful computing resources, which are available to faculty, staff, and students for educational, research, and administrative needs.

Hardware on the UMSL campus includes an IBM 4331 Processor, which is linked to an Amdahl V/7, an Amdahl V/8 and an IBM 3081D in Columbia. The UMSL computer serves as a remote job entry station to the network, where most of the processing is done. There are a large number of interactive terminals connected to the central computers.

The local staff provides consultation, programming, data entry, operations and library services.

## Specialized Centers and Facilities

### Engineering Center

The *UMR Engineering Center* at UMSL is part of the School of Engineering of the University of Missouri-Rolla Extension Division. The Center offers St. Louis area residents an opportunity to pursue continuing-education coursework in engineering during the evening. Graduate work is available in engineering and computer science, including both the master of science and professional development degrees in aerospace, chemical, civil, electrical, environmental, mechanical engineering, engineering management, engineering mechanics and computer science.

The Center also provides information to St. Louis area residents about UMR programs in Rolla. Advisers can assist area pre-engineering students with transfer to the Rolla campus and with entry into the Cooperative Training Program that exists between UMR and numerous U.S. industries. This co-op program allows engineering students to gain valuable industrial experience during their school years and to be partially or totally self-supporting.

The Center also assists St. Louis area companies by offering in-house training courses in the technical areas of competence of UMR.

### International Studies

The Center for International Studies supports academic programs, research activities, seminars, and conferences designed to promote and improve research methods in international studies, improve the methods of teaching international studies in schools and colleges, and encourage an interest in international affairs among the UMSL and area communities. The Center promotes interdisciplinary and multidisciplinary courses and assists in staffing courses within individual departments. It arranges seminars to meet specific faculty and student needs and interests, sponsors conferences and seminars, issues occasional papers, and administers undergraduate certificate programs in East Asian studies, European studies, international studies, and Latin American studies for the College of Arts and Sciences. The Center serves as the campus depository for information on exchange and study abroad programs and provides assistance to students seeking information on such programs.

### KWMU

KWMU FM 91, the 97,000 watt National Public Radio affiliate, presents classical music, jazz, and news, 24 hours a day, and serves the University by broadcasting all official University announcements. Students gain media experience at the station through staff-supervised internships and by broadcasting their own alternative programming after 11 pm Fridays, Saturdays, and Sundays.

### Metropolitan Studies

The Center for Metropolitan Studies provides research and community service on a variety of concerns to residents of the St. Louis area and the state of Missouri. The Center strives to provide an interdisciplinary approach to community problems, with staff members holding appointments in a variety of academic areas. Its major operating objective is to produce research that will assist in devising equitable and effective social policies. Audiences for the Center's work include the private and public sectors as well as professional colleagues. Dissemination strategies involve speeches, workshops, consultations, service on policy bodies, or with the electronic and print media and professional publications. Center activities are focused around five themes:

- Economic Development and Employment
- Financing Government
- Ethnicity and Neighborhoods
- Community Conflict Resolution
- Urban Aesthetics

### Midwest Community Education Development Center

The Midwest Community Education Development Center, located in the School of Education and the Division of Continuing Education-Extension, serves Missouri in the development of community education. The Center provides consultation, training programs and materials to educational and human service agencies and to other groups and individual citizens concerned about their communities. The Center also cooperates with the School of Education in M.Ed. and Ed.D. programs with an emphasis in community education. Graduate courses in community and adult education are taught on a regular basis. For further information, refer to the section in this *Bulletin* under Graduate Programs in Educational Administration, or call the Center at 553-5746.



## Research Facilities

Apart from the research facilities of separate departments and divisions, a number of specialized facilities have been created on campus through consortium efforts.

### Botany Research

Instructional and research programs in systematic and evolutionary botany have been developed by a consortium of four area universities: the University of Missouri-St. Louis, Washington University, St. Louis University, and Southern Illinois University-Edwardsville. The program operates in conjunction with the Institute for Systematic and Evolutionary Botany of the Missouri Botanical Garden, one of the principal centers for botanical research in the United States. Under the consortium, the faculties, facilities, and collections on the four campuses and at the garden are shared, including the large herbarium and library at the garden, greenhouse facilities, scanning and transmission electronmicroscopes, a tropical field research station in the Canal Zone, and course offerings of the four universities.

### Environmental Health Center

The Environmental Health Center at the Columbia campus serves the stimulation and coordination of research, teaching, and public service in areas related to man's environment and its effect on public health and the quality of living. The center concentrates on two broad research activities: the Environmental Surveillance Center, which is concerned with study of human and swine birth defects and the environmental factors which may contribute to these defects; and the Environmental Trace Substances Center, concerned primarily with research, training, and analytical services relating to the assessment of the environment's chemical composition. The center's principal function is to stimulate and support environmental studies within the university system, but it also serves as a regional and national center for ecological investigation.

### Industrial Development Studies

The Office of Industrial Development Studies is a cooperative effort of the University of Missouri and the Division of Commerce and Industrial Development. The office, located on the Columbia campus, provides university research capabilities in support of the industrial development studies, both public and private. Research is performed in most instances by experts on all four campuses. Some studies are partially or totally prepared by office staff members, all of whom have had practical experience in the field.

The Center works in cooperation with the University's industrial extension agents to insure responsiveness to the interests, opinions, and needs of industry throughout the state. Drawing assistance from specialized research centers on the four campuses, the office provides services to industrial development organizations, governmental bodies, and private firms in such areas as market, product feasibility, plant locations, and urban-rural industrial studies.

### MASUA Traveling Scholars

The University is a member of the Mid-America State Universities Association, which coordinates a traveling scholar program for its member institutions. The program provides doctoral students with the opportunity to pursue advanced studies for short periods of time at universities other than their own. Further information may be obtained from the Graduate School office.

### Medicine Research

The Sinclair Comparative Medicine Research Farm is a University-wide research facility located about five miles south of Columbia, Missouri. The farm offers both large and small animals as models for human health-related conditions in the study of chronic diseases and aging. Center staff members are working in the areas of biochemistry and nutrition, biostatistics, clinical medicine, genetics, microbiology, and pathology. Interested investigators and graduate students may use the Sinclair facility.

### Political Research

The University of Missouri-St. Louis is a member of the Inter-University Consortium for Political Research, an academic partnership between the University of Michigan Center for Political Studies and more than 140 colleges and universities in the United States and abroad. The consortium is an interdisciplinary, interuniversity research and training facility for both students and faculty in the social sciences. Through various consortium archives, students and faculty have direct access to a variety of multipurpose data of a socio-political nature that may serve a variety of research and training needs. The campus Computer Center provides data-processing services for consortium resources. Students and faculty are also eligible to participate in the consortium's summer training program, a series of intensive eight-week courses of interdisciplinary work for historians, political scientists, sociologists, and other social scientists.

### Research Reactor

The Research Reactor is a University-wide facility located south of Columbia, Missouri. The facility, available for use by staff members and graduate students, includes a fluxtrap reactor currently operating at a power of five megawatts and offering the highest neutron flux of any university reactor in the country. Seventeen research laboratories specifically designed for research involving radiation are associated with the reactor. The reactor provides a variety of experimental facilities, including four pneumatic tubes servicing seven laboratories, six beam ports, 12 high flux irradiation positions adjacent to the reactor, and a neutron radiography facility. A nuclear science group provides services in trace element research, radioisotope production, nuclear chemistry research, and activation analysis.

## Research Facilities

### Water Resources Research

The Water Resources Research Center at the Columbia campus encourages and coordinates University-wide research into problems relating to preservation and development of adequate pure water supplies and to prepare specialists in the water resources field. Principal emphasis is given to implementation of the Federal Water Resources Research Act of 1964, which provides for allotment and matching grant funding by the United States Department of the Interior. Funds available through the Center may be used for support of water research, both basic and applied, in a variety of related fields.

## Continuing Education-Extension

An important mission of the University of Missouri is to extend its expertise to the community, thereby enhancing lives and making a contribution to community and state development. At UMSL, Continuing Education-Extension serves to carry out that mission.

Through Continuing Education-Extension, the University's Schools and Colleges administer a wide variety of credit courses, noncredit programs and problem-oriented research for the benefit of the people of the greater St. Louis metropolitan area and beyond. Programs are offered both on and off campus. Research, generally of an applied, urban-related nature, is designed to solve specific problems of client groups.

### Arts and Sciences

Continuing Education-Extension in the College of Arts and Sciences includes credit courses and noncredit programs in all of the college's departmental disciplines including courses and workshops in music appreciation, photography, writing and video production. Several interdisciplinary programs deal with such fields as gerontology, public policy, the humanities, and economic education. Faculty members and students are engaged in studies of community organization, neighborhood revitalization, labor organizations, taxation, and municipal and governmental services.

The College of Arts and Sciences and Continuing Education-Extension also sponsor the Center for Economic Education which provides research and programs in economic education to local teachers and organizations. (See Specialized Centers and Facilities.)

### Business Administration

Continuing Education programs in business are offered in several areas, including economic and organizational development, management improvement, and individual and professional growth. Programs range from a 66-hour certificate program for industrial supervisors to intensive review courses for CPA and CMA examinations. Special seminars and conferences are offered regularly on specific topics of current interest.

### Education

The overall aim of School of Education's extension activities is to provide services which bring about better teaching and learning situations in educational settings. The programs and courses help students complete Missouri teacher certification requirements, as well as provide work either toward advanced degrees or for in-service professional growth. The school extends instructional research and service to educational personnel in other parts of Missouri and the Midwest in addition to the St. Louis metropolitan area.

The Midwest Community Education Development Center is sponsored by Continuing Education-Extension and the School of Education and serves in the educational development of

## Continuing Education-Extension

communities throughout Missouri. The Center assists various groups, agencies, and individuals concerned about their communities, providing training programs and materials. (See Specialized Centers in this *Bulletin*.)

### Optometry

The University offers Continuing Education programs for optometrists through the new UMSL School of Optometry. Each spring, the Optometric Institute draws several hundred optometrists and optometric assistants and technicians for a one-day conference covering the latest optometric techniques.

### Nursing

UMSL's newest school offers rigorous Continuing Education programs for nurses. Credit courses which apply to the new B.S.N. degree are being offered at four area hospitals and schools. Also, an intensive series of noncredit nursing management workshops is available to local nurses.

### Special Programs

Special assistance for persons returning to school or the workplace is provided through Continuing Education Discovery Programs. Services include help in educational, vocational, and career planning, as well as short courses and workshops offered through the nationally recognized Discovery Program for Women. Special women's management programs are also available to local business firms.

Under the auspices of the College of Arts and Sciences, an active group of volunteers produce a radio program for older adults, "Creative Aging." The program is broadcast weekly on the university's radio station KWMU.

### UMSL Lindbergh

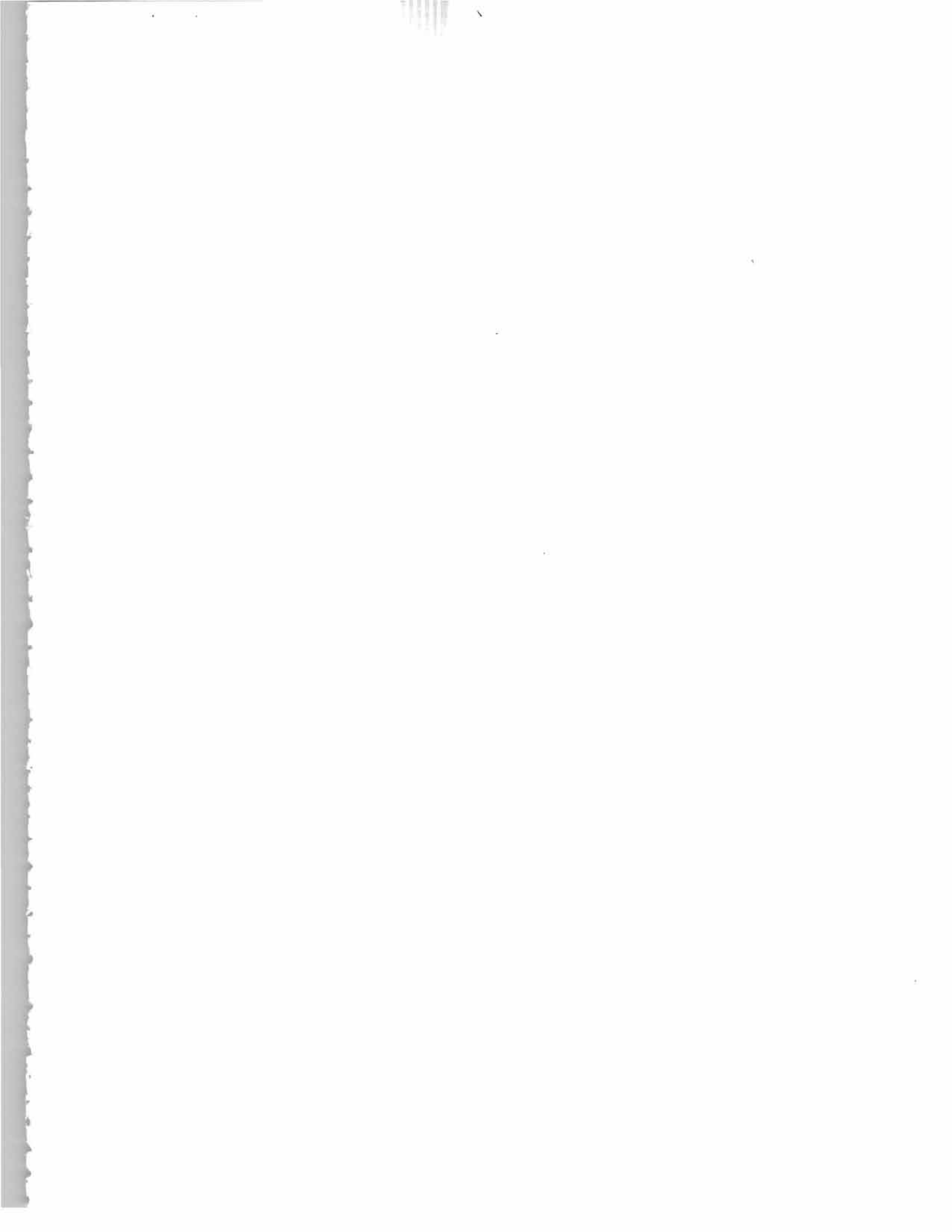
Continuing Education-Extension offers selected graduate and undergraduate credit courses at UMSL Lindbergh, a satellite located at Lindbergh High School in south St. Louis county. In addition to UMSL Lindbergh, Continuing Education-Extension offered credit courses at 32 other metropolitan sites last year.

### In-house Training

Specialized research and technical assistance as well as in-house training programs are available to local businesses and organizations. With the help of expert faculty and staff consultants, the University is equipped to deliver specialized training on an in-house basis.

### J.C. Penney Building

UMSL's large conference facility houses a 440-seat auditorium as well as eight large conference rooms designed to provide an excellent academic environment and maximum convenience for course participants. A complete conference staff provides administrative support for seminars and conferences, as well as coordination for hundreds of hosted programs each year.







# Degree Programs

## **Undergraduate and Graduate**

College of Arts and Sciences  
School of Business Administration  
School of Education  
Evening College  
School of Optometry  
School of Nursing



## Degree Programs

### Undergraduate Studies

Undergraduate degree programs are offered by the College of Arts and Sciences, School of Business Administration, School of Education, Evening College, and School of Nursing. Information on these programs can be found on the pages indicated:

#### Bachelor of Arts (B.A.)

anthropology, p. 60	music, p. 89
art history, p. 61	music history and literature, p. 89
biology, p. 63	philosophy, p. 93
chemistry, p. 68	physics, p. 95
economics, p. 72	political science, p. 98
English, p. 75	psychology, p. 102
French, p. 86	sociology, p. 106
German, p. 86	Spanish, p. 86
history, p. 79	speech communication, p. 109
mathematics, p. 82	

#### Bachelor of General Studies (B.G.S.), p. 157

#### Bachelor of Music (B.M.)

music, p. 89  
music education, p. 89

#### Bachelor of Science (B.S.)

applied mathematics, p. 83  
biology, p. 63  
chemistry, p. 68  
computer science, p. 83  
economics, p. 72  
physics, p. 95  
sociology, p. 106

#### Bachelor of Science in Administration of Justice (B.S.A.J.), p. 57

#### Bachelor of Science in Business Administration (B.S.B.A.), p. 126

#### Bachelor of Science in Education (B.S.Ed.)

early childhood education, p. 148  
elementary education, p. 149  
physical education, p. 152  
secondary education, p. 138  
special education, p. 144

#### Bachelor of Science in Nursing (B.S.N.), p. 167

#### Bachelor of Science in Public Administration (B.S.P.A.), p. 98

#### Bachelor of Social Work (B.S.W.), p. 105

### Graduate Studies

Administered by the Graduate School, graduate study at UMSL embraces study for degrees and certificates beyond the bachelor's degree in all divisions except the School of Optometry which administers the professional program leading to the Doctor of Optometry degree.

From its beginnings, graduate education at UMSL has been guided by four broad purposes: development of excellence in scholarship; encouragement of creative productivity in research; fostering of the highest standards in professional competence and commitment; and development of skill in the communication of knowledge. Responsive to the unique and comprehensive demands of the St. Louis area, the University has moved rapidly in the development of specialized facilities, a distinguished and creative faculty, and appropriate graduate programs to achieve these objectives.

In most cases, master's degree programs can be completed through part-time study.

Information on graduate degrees offered at UMSL can be found on the following pages:

#### Master of Accounting (MAcc) p. 130

#### Master of Arts (M.A.)

economics, p. 73  
English, p. 77  
history, p. 80  
mathematics, p. 85  
political science, p. 101  
psychology, p. 103  
sociology, p. 107

#### Master of Business Administration (MBA), p. 128

#### Master of Education (M.Ed.), p. 136

counseling, p. 145  
educational administration, p. 141  
elementary education, p. 150  
secondary education, p. 140  
special education, p. 146

#### Master of Public Policy Administration (MPPA), p. 163

#### Master of Science (M.S.)

biology, p. 66  
chemistry, p. 70  
management information systems, p. 129  
physics, p. 97

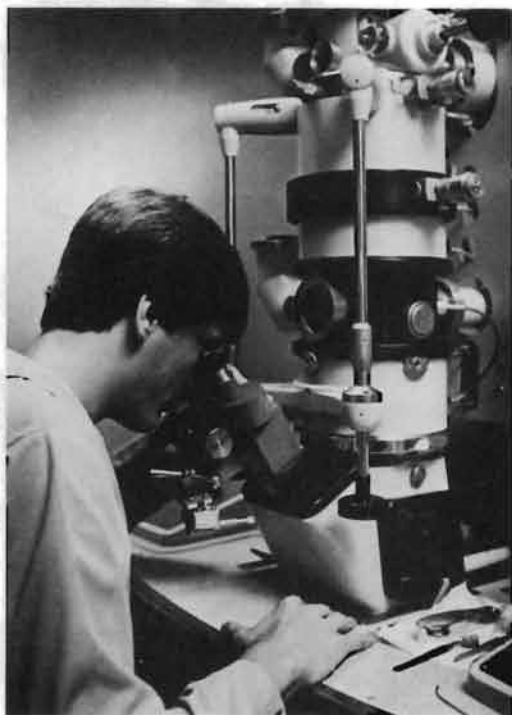
#### Doctor of Education (Ed.D.), p. 136

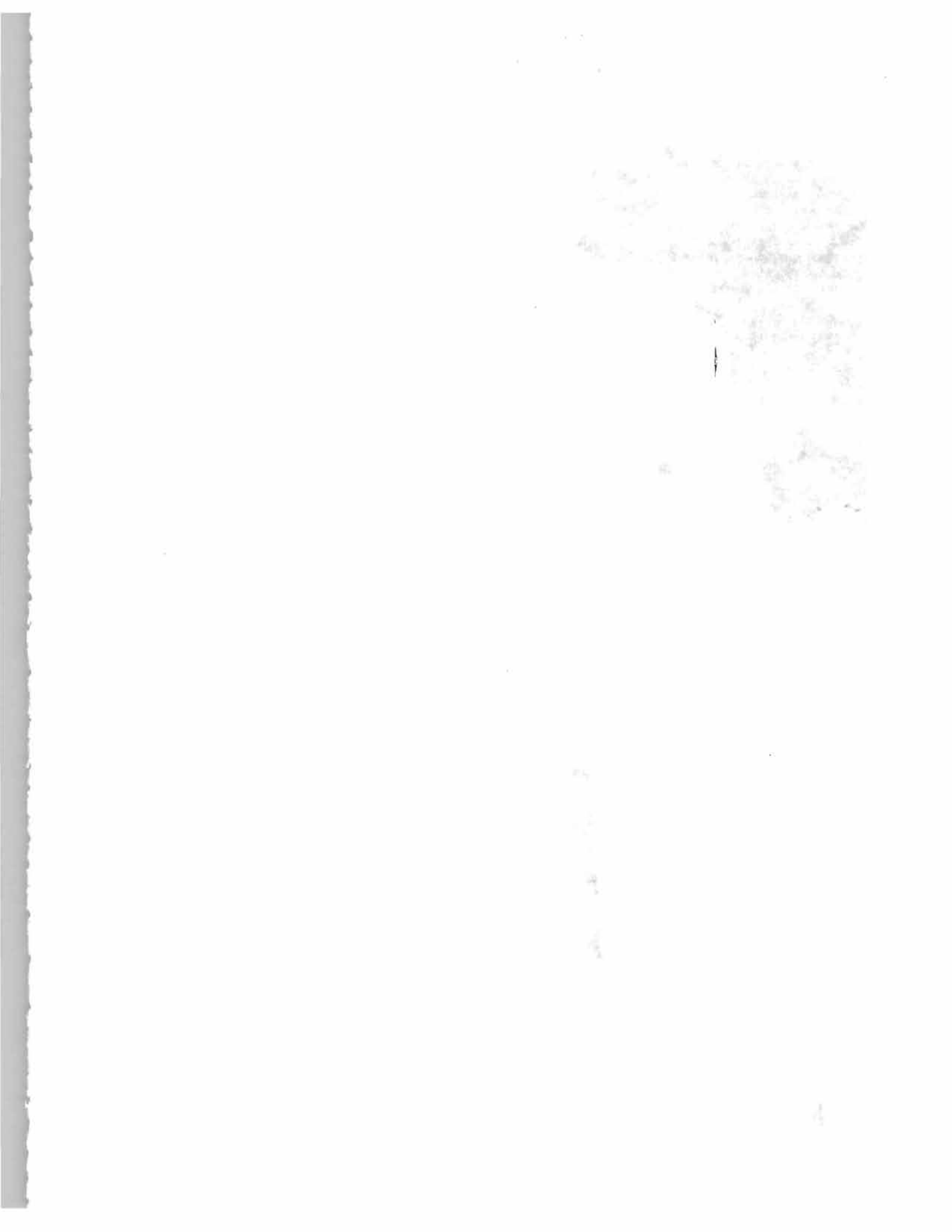
#### Doctor of Optometry (O.D.), pp. 173

#### Doctor of Philosophy (Ph.D.)

chemistry, p. 71  
psychology, pp. 104

# College of Arts and Sciences







## General Information

The College of Arts and Sciences consists of some 275 full-time faculty members in the following departments, each offering work in specific undergraduate degree programs: administration of justice; anthropology; art; biology; chemistry; economics; English; history; mathematical sciences; modern foreign languages and literatures; music; philosophy; physics; political science; psychology; social work; sociology; and speech communication.

Graduate study degree programs, administered through the Graduate School, are also offered in the following departments of the College of Arts and Sciences: biology, chemistry, economics, English, history, mathematical sciences, physics, political science, psychology, and sociology. An interdisciplinary master's degree in public policy administration is offered in cooperation with the School of Business Administration.

Specific degree requirements for both undergraduate and graduate degree programs are described in the departmental sections which follow this general information on the College.

### Requirements of the College of Arts and Sciences for Undergraduate Study

In addition to the University General Education requirements, all majors in the College of Arts and Sciences must meet the following requirements:

**I Non-Euro-American Study** To expose students to a culture radically different from their own, the College requires that students complete a three-hour course which focuses primarily upon aspects of a culture and not upon the interactions of that culture with Euro-American cultures. This requirement may be met by **one** of the following courses:

- Anthropology 121**, Modern Aztec and Maya
- Anthropology 122**, Indians of North America
- Anthropology 123**, Cultures of Asia
- Anthropology 124**, Cultures of Africa
- Anthropology 131**, Archaeology of Missouri
- Anthropology 132**, Archaeology of North America
- Anthropology 133**, World Prehistory
- Anthropology 134**, The Inca, Aztec, and Maya
- Art 15**, Primitive/Tribal Arts
- Art 16**, North American Indian Art
- Art 17**, African Art
- Art 18**, Survey of Oriental Art
- Art 19**, Pre-Columbian Art of Mexico and Central America
- History 61**, East Asian Civilization
- History 62**, East Asian Civilization
- History 71**, Latin American Civilization
- History 81**, African Civilization To 1800
- History 82**, African Civilization Since 1800
- History 101**, History of Women in Comparative Cultures
- History 162**, The Chinese Revolution: Readings in Chinese Literature
- History 261**, Modern Japan: 1850 to the Present
- History 262**, Modern China: 1800 to the Present
- History 271**, History of Latin America: To 1808
- History 272**, History of Latin America: Since 1808
- History 281**, West Africa Since 1800
- History 282**, Crisis in Southern Africa
- Music 9**, Non-Western Music

- Music 10**, Non-Western Music
- Philosophy 120**, Asian Philosophy
- Political Science 252**, The Politics of Modernization
- Political Science 253**, Political Systems of South America
- Political Science 254**, Political Systems of Mexico, Central America and the Caribbean
- Political Science 255**, Asian Comparative Politics
- Political Science 289**, Middle Eastern Politics

**II** To graduate, **all** majors in the College also **must complete** the following:

- 1** the requirements of their chosen baccalaureate degree (i.e., B.A., B.S., B.M., etc.) **in accordance with the policies of the College of Arts and Sciences**, explained below.
- 2** the requirements of the department for their selected major or interdisciplinary program.

### College of Arts and Sciences Academic Policies

#### Grade Requirements

To graduate, all majors in the College must satisfy **either** of the following **grade point options**:

- 1** Earn **120** graded hours with a **C grade or better** which constitutes a complete degree program and does **not** include satisfactory/unsatisfactory courses.
- 2** Earn a **cumulative** grade point average of **2.0 or better** for all hours attempted with a minimum of **120** hours.

**This College of Arts and Sciences policy supersedes the statement under General Education Requirements.**

#### Specific Baccalaureate Degree Requirements

**Bachelor of Arts (B.A.)** All B.A. degree candidates must successfully complete a curriculum which includes a departmental major or an approved interdisciplinary field. A major must include at least 30 credit hours, but no more than 45 hours.

**Foreign Language Requirement** Candidates for the B.A. degree are required to complete 13 credit hours **or the equivalent in proficiency** in one foreign language.

Guidelines for students according to prior foreign language training are as follows:

- 1** Students entering with **no high-school language units** must enroll in Language 1 or may enroll in the 115 series (see section 6).
- 2** Students with **four high-school units** in one foreign language are exempt from the foreign language requirement.
- 3** Students with **fewer than four high-school units** in one foreign language, who have either excelled in their high-school language study or otherwise acquired language proficiency, may obtain exemption and/or credit through examination. The specific dates for the exam are announced in the *Course Schedule* or may be obtained from the admissions office or the Department of Modern Foreign Languages.
- 4** **Native speakers** may meet the foreign language requirement by presenting proof of competence. The

## General Information

department will certify native speakers of those languages which are taught at the University. Those who are proficient in other languages must submit certification of competence to the College.

**5** Students in German and Russian may substitute Scientific Language 100 for Language 101. Students in French and Spanish may substitute Language 105 (Commercial) for Language 101.

**6** Language 115 a, b, c (Intensive) will satisfy the foreign language requirement.

**7** Students may not repeat, for either credit or quality points, an elementary course if they have already completed a higher-level course for which the elementary course, or its equivalent, is a prerequisite.

**Applied Music and Studio Art** All students in the College may count any number of hours of applied music (private lessons) or studio art courses toward any degree in the College. This also includes transferred credit. However, students **not** majoring in music may count **no more than eight hours** in music-performing organizations (Music 40, 41, 50, 52, etc.) toward graduation, including credit transferred. Moreover, courses in studio art and applied music (private lessons or performing organizations) do **not** fulfill general education requirements in the humanities.

**Bachelor of Science (B.S.)** The College offers the B.S. degree in applied mathematics, biology, chemistry, computer science, economics, physics (with emphasis in either applied physics or astrophysics), and sociology. The requirements are generally the same as for the B.A. degree with the following exceptions:

**1** More credit hours in the major discipline may be counted toward satisfying the 120 hours needed for graduation. See departmental degree requirements for information.

**2** Not all departments require a foreign language proficiency. See departmental degree requirements for information.

**Bachelor of Science in Administration of Justice (B.S.A.J.)** The College also offers a Bachelor of Science in Administration of Justice degree program with four emphasis areas: American Policing System; Criminal Justice Planning; Etiology and Prevention; and Treatment of Offenders. No foreign language proficiency is required.

**Bachelor of Science in Public Administration (B.S.P.A.)** The B.S.P.A. degree program is administered through the political science department and offers an interdisciplinary approach requiring 12 hours in a particular specialization along with a core curriculum in political science.

**Bachelor of Science in Social Work (B.S.W.)** The Department of Social Work offers the B.S.W. degree, stressing the scientific and applied aspects of social work. No foreign language proficiency is required.

**Bachelor of Music (B.M.)** The requirements are the same as for the B.A. degree with the addition of music education courses for those music majors seeking state teacher certification. Although a foreign language proficiency is not required, foreign-language study is required for applied voice students.

### Minors

A number of minors are available at UMSL. Some are offered by individual departments while others, such as Classical Studies and Black Studies, are interdisciplinary in nature and involve a number of departments. The requirements for the various minors are listed either in the departmental or interdisciplinary sections of this *Bulletin*.

## Special Programs in the College of Arts and Sciences

### Certificate Programs

Certificate programs are offered in Writing, in Women's Studies, and in East Asian, European, Latin American, and International Studies. For details, see Certificate Programs.

### Pierre Laclède Honors Program

This program is a unique four-year honors curriculum for highly motivated students. Open to entering students, transfer students, and UMSL freshmen, it offers challenging work—a series of ten special honors courses—and fulfills the University's General Education requirements.

Advantages include small classes, personal attention, a flexible curriculum, recognition upon completion of one's degree, and financial aid.

Admission is based on grades, SAT or ACT scores, and adviser recommendations. Current UMSL freshmen may be admitted if they apply before their second semester. Admissions normally requires a 3.1 GPA and instructor recommendation.

For information and application call the Laclède Honors Program director at (314) 553-5699.

### Departmental Honors

Majors in the following departments may pursue Departmental Honors: art, chemistry, economics, English, history, modern foreign languages, music, and political science.

### College Honors

Students who have received Sophomore Honors and completed the requirements for Departmental Honors are eligible for College Honors.

### Cooperative Education and Internship Programs

Cooperative Education and Internship Programs offer students an opportunity to gain career-related experience and earn substantial incomes while enrolled in school. These programs are available to students in several disciplines within the College of Arts and Sciences. The programs are administered through the Career Planning and Placement Office.

# Administration of Justice

## Faculty

**Scott H. Decker**, Chairperson; Associate Professor\*  
Ph.D., Florida State University

**Joseph Cannon**, Associate Professor\*  
M.S.W., Ohio State University

**Hon. Theodore McMillian**, Adjunct Associate Professor  
J.D., St. Louis University

**Patrick G. Jackson**, Assistant Professor  
Ph.D., University of California-Davis

**Gary Keveles**, Assistant Professor\*  
Ph.D., State University of New York at Albany

**George F. Meyer, Jr.**, Adjunct Assistant Professor  
J.D., Washington University

**Howard Paperner**, Adjunct Assistant Professor  
J.D., University of Missouri-Kansas City

**Allen E. Wagner**, Assistant Professor\*  
Ph.D., Washington University

**Richard Wright**, Assistant Professor\*  
Ph.D., Cambridge University

**Donna White**, Lecturer\*  
J.D., Washington University

**John Cosgrove**, Adjunct Lecturer  
M.A., University of Missouri-St. Louis

**Herman Wood**, Adjunct Lecturer  
M.S.W., Washington University

\*members of Graduate Faculty

Administration of justice faculty are different. They are experienced in the "real world," and their education represents several academic disciplines. Theory and practice are both considered in conceptualizing justice, a factor that is unique to faculty publications and research. All components of justice are represented: crime prevention, arrest, prosecution, defense, court, probation, prison and parole. A strong element is a cadre of local professionals who supplement the regular faculty. A federal appeals-court judge, a local prosecutor, and a defense attorney are among this group. Merging theory with practice is a daily routine for these supplemental faculty members, while full-time faculty continue to provide a sound liberal arts education.

## General Information

### Degrees and Areas of Concentration

The department offers courses leading to the bachelor of science degree in administration of justice. The degree program consists of a core curriculum and four areas of concentration: 1) American Policing System, 2) Treatment of Offenders, 3) Etiology and Prevention, and 4) Criminal Justice Planning.

**Cooperative Programs** Members of the administration of justice faculty hold appointments as Fellows in the Center for Metropolitan Studies and the Center for International Studies. Workshops, projects, credit courses, and other special services are brought to the criminal justice community.

**Internships** Administration of justice majors are encouraged to participate in Administration of Justice 395, Field Placement, during their senior year. The internship affords students the opportunity to gain experience in a criminal justice agency under the joint supervision of agency personnel and administration of justice faculty.

**Minor in Administration of Justice** The minor in the administration of justice is designed to offer flexibility; students are given a choice of four individualized sequences in the discipline. The minor also gives formal recognition to those students from other major areas who find that administration of justice courses fit their academic or professional needs and/or interests.

## Undergraduate Studies

### General Education Requirements

Majors in administration of justice must satisfy the University and College general education requirements. Foreign language proficiency is not required. Majors may **not** take the following courses on a satisfactory/unsatisfactory basis: administration of justice courses; Sociology 120, Quantitative Techniques in Sociology; or Sociology 130, Research Methods, courses required for the major. Additionally, substitutions which have been approved by departmental advisers for these courses may not be taken on a satisfactory/unsatisfactory basis.

### Degree Requirements

#### Bachelor of Science in Administration of Justice

Candidates must complete the core curriculum listed below and one of the following areas of concentration: 1) American Policing System; 2) Treatment of Offenders; 3) Etiology and Prevention; or 4) Criminal Justice Planning.

The core curriculum and the chosen option must include a minimum of 35 credit hours in administration of justice course content.

**Core Curriculum.** The following courses in administration of justice are required:

**AOJ 70**, Criminal Law and Procedure  
**AOJ 101**, Criminal Justice Processes and Institutions  
**AOJ 201**, The Criminal Justice System: Conflicting Perspectives I  
**AOJ 215**, Criminal Justice Data  
**AOJ 380**, Seminar in Administration of Justice  
**AOJ 399**, Independent Study and Research

Also required are:

**Interdisciplinary 99**, The City  
**Sociology 10**, Introduction to Sociology  
**Sociology 130**, Research Methods  
**Sociology 326**, Criminology

# Administration of Justice

**American Policing System** The required courses are the following:

- AOJ 71**, Evidence
- AOJ 250**, Police Administration
- AOJ 260**, Police-Community Relations
- AOJ 310**, Community Approaches to Prevention and Control of Crime and Delinquency
- AOJ 325**, Criminal Law in Action
- Economics 40**, Introduction to the American Economy
- Political Science 140**, Public Administration
- Psychology 235**, Community Psychology
- Sociology 202**, Urban Sociology or **Political Science 320**, Introduction to American Constitutional Law

**Treatment of Offenders** The required courses are the following:

- AOJ 330**, Correctional Institutions
- AOJ 340**, Probation and Parole
- Psychology 3**, General Psychology
- Psychology 235**, Community Psychology
- Psychology 245**, Abnormal Psychology
- Sociology 130**, Research Methods

Also required are **two** courses from the following:

- Psychology 225**, Behavior Modification
- Psychology 271**, Adolescent Psychology
- Psychology 346**, Introduction to Clinical Psychology
- Psychology 365**, Psychological Tests and Measurements

In addition, the candidate must complete **two** courses from the following:

- AOJ 205**, The Juvenile Justice System
- AOJ 225**, The Juvenile and the Law
- AOJ 227**, Urban Law: Poverty and the Justice System
- AOJ 310**, Community Approaches to Prevention and Control of Crime and Delinquency
- AOJ 325**, Criminal Law in Action

## Etiology and Prevention

The required courses are the following:

- AOJ 205**, The Juvenile Justice System
- AOJ 225**, The Juvenile and the Law or **AOJ 227**, Urban Law: Poverty and the Justice System
- AOJ 310**, Community Approaches to Prevention and Control of Crime and Delinquency
- AOJ 330**, Correctional Institutions
- AOJ 340**, Probation and Parole
- Psychology 3**, General Psychology
- Sociology 130**, Research Methods

and **one** course from the following three:

- Psychology 245**, Abnormal Psychology
- Psychology 270**, Child Psychology
- Psychology 271**, Adolescent Psychology

## Criminal Justice Planning

The required courses are the following:

- Business Administration 104**, Introduction to FORTRAN Programming
- Business Administration 224**, Introduction to Systems Programming
- Business Administration 375**, Operations Research
- Economics 301**, The Urban Environment and Planning
- Mathematics 40**, Pre-Calculus Mathematics
- Mathematics 101**, Survey Calculus

In addition, the candidate must complete **two** courses from the following five:

- AOJ 205**, The Juvenile Justice System
- AOJ 227**, Urban Law: Poverty and the Justice System
- AOJ 310**, Community Approaches to Prevention and Control of Crime and Delinquency
- AOJ 330**, Correctional Institutions
- AOJ 340**, Probation and Parole

## Requirements for the Minor

All minor candidates must take:

- AOJ 70**, Criminal Law and Procedure
- AOJ 101**, Criminal Justice Processes and Institutions

The candidate must then select from one of the following areas of concentration:

### Policing (6 hours)

- AOJ 250**, Police Administration
- AOJ 260**, Police-Community Relations

### Corrections (6 hours)

- AOJ 330**, Correctional Institutions
- AOJ 340**, Probation and Parole

### Juvenile (6 hours)

- AOJ 205**, The Juvenile Justice System
- AOJ 225**, The Juvenile and the Law

### Law and Judicial Process (6 hours)

- AOJ 225**, The Juvenile and the Law
- AOJ 325**, Criminal Law in Action

Candidates must have a cumulative grade point average of 2.0 or better in the minor. None of the courses may be taken on a satisfactory/unsatisfactory basis.



# Administration of Justice

## Career Outlook

The orientation of the administration of justice faculty and of the degree program prepare the graduate to work professionally for local, state, and federal agencies concerned with maintaining public safety by the prevention, apprehension, and rehabilitation of offenders. The B.S. in administration of justice is also advantageous for careers with various social agencies, especially those connected with the juvenile court system, probation and parole and local police.

The interdisciplinary curricula unify a body of knowledge from criminology, social science, law, public administration and corrections, giving a unique preparation and providing the student with an understanding of the assumptions, values, and processes of the system of justice. Many prelaw students choose administration of justice as an undergraduate major because of the excellent preparation offered for law school. An internship program is offered for college credit. The liaison supervision and experience with public agencies which form an integral part of this program help the student arrive at a career decision.

# Anthropology

## Faculty

**Van A. Reidhead**, Chairperson, Associate Professor\*  
Ph.D., Indiana University

**Stuart M. Plattner**, Associate Professor\*  
(on leave 1985-86, 1986-87)  
Ph.D., Stanford University

**Helan E. Page**, Assistant Professor\*  
Ph.D., Northwestern University

**Joseph M. Nixon**, Director Archaeology Survey, Assistant Research Professor  
Ph.D., University of Illinois-Carbondale

**Neal H. Lopinot**, Visiting Assistant Professor, Assistant Director  
Archaeology Survey  
Ph.D., Southern Illinois University-Carbondale

\*members of Graduate Faculty

## General Information

**Degrees and Areas of Concentration** A bachelor of arts in anthropology is offered with a focus on applied and theoretical skills. The anthropology faculty is actively involved in social, cultural, and archaeological research in the St. Louis area and elsewhere. These activities allow students to practice newly-acquired skills and do independent research at the undergraduate level. The projects UMSL students have worked on include studies of Soulard Farmers Market, a local day-care center, witchcraft in St. Louis, and the native American Indian people of metropolitan St. Louis. They have worked on numerous archaeological digs of prehistoric and historic Indian and pioneer cultures, and have played an active role in research aimed at preserving archaeological sites in the face of industrial development. Papers written by students from these studies have been presented at professional meetings, published in national and local journals, and presented to government agencies for use in development and planning.

The Anthropology Department supports the Archaeological Survey, a contract research office serving regional construction projects. Students can be trained in this research through the Summer Archaeological Field School. The site for the summer school in recent years is a prehistoric Indian village in Bridgeton, Missouri.

Students often mention the value of the close and supportive relationship the faculty maintains with each student. The program stresses the ability to master the academic materials, do independent studies, and present the results of the work in professional style.

**Minor in Anthropology** The minor in anthropology is designed to offer students a flexible introduction to the fundamentals of the discipline to complement their major field of study.

## Undergraduate Studies

### General Education Requirements

Majors must satisfy the University and College general education requirements. Any foreign language may be used to meet the language requirement for the B.A. degree.

Department courses taken on a satisfactory/unsatisfactory basis may not be applied toward the major.

## Degree Requirements

**Bachelor of Arts in Anthropology** Candidates must complete the following **core requirements**:

**Anthropology 5**, Human Origins

**Anthropology 11**, People, Culture, and Society

**Anthropology 205**, Introduction to Models in the Social Sciences  
(same as Political Science 205 and Sociology 205)

**Anthropology 301**, Ideas and Explanations in Anthropology,  
Intensive

**Anthropology 302**, Strategies in Social Organization, Intensive

**Anthropology 308**, Practicum in Research Methods, Intensive

**Sociology 120**, Quantitative Techniques in Sociology or

**Psychology 101**, Psychological Statistics, or **Business**

**Administration 131**, Elementary Statistics, or **Mathematics 31**,  
Elementary Statistical Methods

In addition, students must take at least 12, but no more than 25, hours of electives in anthropology. No more than three credit hours may be from courses below the 100 level.

**Minor in Anthropology** A minor in anthropology consists of **six** courses or 19 hours. All minor degree candidates must take:

**Anthropology 5**, Human Origins

**Anthropology 11**, People, Culture, and Society

Candidates should also select at least **one** course from the following three **anthropology** courses:

**101/301**, Ideas and Explanations in Anthropology

**102/302**, Strategies in Social Organization

**108/308**, Practicum in Research Methods

Candidates should also select **nine hours** or **three courses** in anthropology to complete the course/credit hour requirement.

Grades of C or better should be attained in all courses used to satisfy these requirements. One course taken on satisfactory/unsatisfactory basis may be applied toward the minor.

## Career Outlook

The B.A. in anthropology equips the student for employment in almost any area in which a bachelor's degree is sufficient and a sensitivity to cultural values is important. Graduates of UMSL's program have found employment in archaeology research programs, planning programs, health-care delivery and other human services, as well as in business or public media work.

Anthropology is an excellent preparation for future training in administration, the helping professions and any development work, as well as for law school. UMSL students have gone on to advanced training in Ph.D. programs in various universities around the country. Jobs for Ph.D. anthropologists are restricted to research and university teaching, however.

# Art

## Faculty

**Janet C. Berlo**, Chairperson; Associate Professor\*  
Ph.D., Yale University

**Marie Larkin**, Adjunct Professor  
Ed.D., Columbia University

**Kenneth Anderson**, Associate Professor  
M.F.A., Southern Illinois University, Edwardsville

**Ruth L. Bohan**, Assistant Professor\*  
Ph.D., University of Maryland

**Yael Even**, Assistant Professor  
Ph.D., Columbia University

**Tom Patton**, Assistant Professor\*  
M.F.A., University of New Mexico, Albuquerque

**Thomas Pickrel**, Assistant Professor\*  
Ph.D., University of Kansas

**Jean Tucker**, Lecturer  
M.A., Washington University

**Rachel Park Applegate**, Research Assistant

\*members of Graduate Faculty

The art department faculty has distinguished itself through its research and publications, its exhibitions and awards, and its acquisitions of honors and grants. Faculty members in art history have received grants from NEH, the American Philosophical Society, NEA, the Missouri Arts Council, and the Mellon Foundation. Department research in art history has been published in distinguished journals and presented to academic meetings and organizations. All studio faculty exhibit nationally in group- and solo-juried and invited exhibitions. Their work has been supported by show awards, Ford Foundation, and University Research and Curriculum Development grants.

## General Information

**Degrees and Areas of Concentration** The department offers course work leading toward the bachelor of arts in art history. Some courses survey traditional areas of study in the history of art; others concentrate on important artists, artistic theories, or movements. Several special-interest courses are available in non-Euro-American areas and on other topics. The diverse academic interests of the art history faculty ensure a varied selection of courses within a traditional art historical framework. The department has a slide collection of over 70,000 works and maintains facilities for student study of slides. A slide curator is available for special assistance to staff and students.

Studio offerings are also available in the department. Currently, coursework is offered as enrichment to students majoring in art history and other fields. Students who wish to enroll in a substantial number of studio courses should consult with a faculty adviser. The faculty wishes to increase the visual skills and the insights of students who have varied experiences and backgrounds. Drawing, painting, printmaking, graphic design, and photography labs may be available. Individual study is offered under special circumstances.

**Gallery 210** In addition to academic and studio courses, the department maintains an exhibition space, Gallery 210. The

gallery produces a variety of public exhibits during the academic year under faculty supervision or with the assistance of distinguished guest directors. Through the gallery, the department offers aesthetic displays not otherwise available in the area and makes them available to the campus and metropolitan communities.

**Internships** A limited number of internships and work opportunities are also sponsored by the department.

## Undergraduate Studies

### General Education Requirements

Majors in art history must meet the College and University general education requirements. A foreign language is required. Art history courses required for the degree may not be taken on a satisfactory/unsatisfactory basis.

Departmental courses in art history fulfill the humanities general education requirement; courses meeting the non-Euro-American study requirement are Art 15, Primitive/Tribal Arts; Art 16, North American Indian Art; Art 17, African Art; Art 18, Survey of Oriental Art; Art 19, Pre-Columbian Art of Mexico and Central America; and Art 315, Studies: Tribal Arts.

Students may take any number of studio courses and apply them as elective credit toward a degree in other fields. They do not fulfill the humanities requirement.

### Degree Requirements

**Bachelor of Arts in Art History** Candidates for this degree study the history of the visual arts from prehistory to the present. A minimum of 35, but no more than 45, hours in art history must be taken. The following courses are required:

**Art 5**, Introduction to Art

**Art 303**, Art History Media Lab

**Art 395**, Senior Art History Seminar

In addition to these specific requirements, majors must complete at least one course in each of the following areas: Non-Western arts, Classical Art and Archaeology, Medieval, Renaissance, Baroque, and Modern, with choices to be made from the following art courses:

**15**, Primitive/Tribal Arts

**16**, North American Indian Art

**17**, African Art

**18**, Survey of Oriental Art

**19**, Pre-Columbian Art of Mexico and Central America

**215**, Classical Art and Archaeology of Greece and Rome

**225**, Medieval Art

**235**, Renaissance Art

**245**, Baroque Art

**255**, Modern Art

**315**, Studies: Tribal Arts

**325**, Early Christian Art and Archaeology

**326**, Monasteries, Cathedrals and Preaching Churches

**335**, Artists and Theories of the Renaissance

**345**, Age of Grandeur: Perspectives in 17th and 18th Century Art

**356**, Nineteenth Century Art

**357**, Twentieth Century Art

# Art

At least **nine credit hours** must be taken in art history courses numbered 300 or above.

Nine hours in studio art may be applied toward the required hours for the B.A. in art history. French or German is recommended for the foreign language requirement. Advisers will help students select studio art electives.

## Minors

**Minor in Art History** A minor in art history requires the completion of a program of courses, at least 15 hours and normally not more than 18, with a grade point average of 2.0 or better. This program can consist of an historical survey of the basic periods in Western Art History, Classical through Modern. Alternatively, it can be a group of courses which are coherent in theme, methodology, or art-historical scope, which has been specified in advance with an adviser from the art department, and which has the approval of the department chairperson.

**Minor in Studio Art** Students who wish to minor in studio art must take a minimum of 18 hours with a grade point average of 2.0 or better. The requirements for the minor are as follows:

**Art 40**, Basic Drawing I

**Art 140**, Basic Drawing II

**Art 50**, Basic Design I

**Two consecutive courses** (six hours) in any single area to be selected from the following (students should be aware that courses are not always available in all areas):

- Painting
- Printmaking (any one subfield)
- Photography
- Graphic Design
- Advanced Drawing

**A studio art elective:** one three-hour course.

## Career Outlook

Students in art history have found career opportunities in museums, galleries, sales and auction houses, libraries as art conservators, on art journal and editorial staffs, and even as travel guides. In addition, the undergraduate degree in the field prepares one for further study in art history or related areas and for teaching. Study in art history broadens and enriches a general education, offering insight into the visual, architectural, and cultural artifacts left by earlier as well as modern civilizations.

Students of studio art begin a preparation for careers in fine and applied arts. Some foundation courses in the field are available. It is usually possible to transfer credit for these courses to other colleges and universities which offer a B.A. or B.F.A. degree.



# Biology

## Faculty

**Charles R. Granger**, Chairperson; Associate Professor\*  
Ph.D., University of Iowa

**Donald E. Grogan**, Associate Chairperson; Associate Professor\*  
Ph.D., University of Missouri-Columbia

**John E. Averett**, Professor\*  
Ph.D., University of Texas-Austin

**Robert S. Bader**, Professor\*  
Ph.D., University of Chicago

**Thomas B. Croat**, Adjunct Professor\*  
Ph.D., University of Kansas

**Arnold B. Grobman**, Professor\*; Chancellor  
Ph.D., University of Rochester

**Marshall R. Crosby**, Adjunct Professor\*  
Ph.D., Duke University

**Peter H. Raven**, Adjunct Professor\*; Director  
Missouri Botanical Garden  
Ph.D., University of California-Los Angeles

**Martin Sage**, Professor\*  
Ph.D., Nottingham University

**Monroe W. Strickberger**, Professor\*  
Ph.D., Columbia University

**Robert I. Bolla**, Associate Professor\*  
Ph.D., University of Massachusetts-Amherst

**William G. D'Arcy**, Adjunct Associate Professor\*  
Ph.D., Washington University

**Albert Derby**, Associate Professor\*  
Ph.D., City University of New York

**Harvey P. Friedman**, Associate Professor\*  
Ph.D., University of Kansas

**Lawrence D. Friedman**, Associate Professor\*  
Ph.D., University of Wisconsin

**Alwyn H. Gentry**, Adjunct Associate Professor\*  
Ph.D., Washington University

**Peter Goldblatt**, Adjunct Associate Professor\*  
Ph.D., University of Cape Town, South Africa

**Zuleyma T. Halpin**, Associate Professor\*  
Ph.D., University of California-Berkeley

**James H. Hunt**, Associate Professor\*  
Ph.D., University of California-Berkeley

**Victoria E. Sork**, Associate Professor\*  
Ph.D., University of Michigan

**Jane A. Starling**, Associate Professor\*  
Ph.D., The William Marsh Rice University

**Lon A. Wilkens**, Director of Graduate Program;  
Associate Professor\*  
Ph.D., Florida State University

**Nancy R. Morin**, Adjunct Assistant Professor\*  
Ph.D., University of California-Berkeley

**Teresa Thiel**, Assistant Professor\*  
Ph.D., Case Western Reserve University

**Carl L. Thurman**, Visiting Assistant Professor  
Ph.D., University of Minnesota

**Rosemary Cannistraro**, Lecturer  
Ph.D., Rutgers University

**Barbara M. Kratochvil**, Lecturer  
M.A.T., Washington State University

**John C. Mruzik**, Lecturer, Supervisor of Physical Facilities  
M.S., University of Missouri-St. Louis

**Roderick A. Stegeman**, Lecturer  
M.A., Southern Illinois University-Carbondale

**Ann O. Wilke**, Lecturer, Director of Undergraduate Laboratories  
M.S., University of Illinois

**Teri L. Todtenhausen**, Laboratory Supervisor

\*members of Graduate Faculty

## General Information

**Degrees and Areas of Concentration** The Department of Biology provides academic programs leading to the B.A. or B.S. in biology; and, in cooperation with the School of Education, offers the B.S. in secondary education with a major in biology and the B.A. or B.S. in biology with teacher certification.

Biology faculty members are engaged in teaching and research in areas ranging from molecular biology to population studies. Majors have the chance to take courses which help them develop both theoretical and experimental backgrounds necessary for further work in some of the most rapidly expanding fields of biological science or to pursue in-depth studies in specific areas through advanced courses, seminars, and individualized research programs.

**Departmental Honors** Candidates for the B.A. or B.S. degree are eligible for Departmental Honors if they: 1) have a minimum of a 3.2 overall GPA and a minimum 3.2 average in biology courses used to complete the major; 2) complete a minimum of 2 credit hours of Biology 390, Research; and 3) complete an honors thesis based on Biology 390 research work. The academic record and thesis will be evaluated by the Honors Committee and those students who qualify will be recommended for honors.

**Minor in Biology** Students majoring in another discipline may earn a minor in biology by completing a prescribed course of study. Unique programs can be developed to coordinate with special career objectives. Students should consult their adviser and the chairperson of the biology department.

**Graduate Studies** The biology department also offers work leading to the M.S. in biology. Graduate studies are offered in a broad range of areas including animal behavior, biochemistry, development, ecology, genetics, molecular and cellular biology, physiology, and plant systems.

Program objectives are to provide the research-oriented training necessary for students to enter doctoral programs in biology; to develop professional biologists qualified to function in responsible technical positions; and to train secondary school and junior college biology teachers.

**Assistantships** A limited number of teaching and research assistantships are available for qualified students, which include a stipend and remission of out-of-state fees for half-time (20 hours per week) work during the nine-month academic year.

**Facilities** Department facilities include research and teaching laboratories, environmental chambers, greenhouses, animal care rooms, and a large array of supporting equipment such as electron microscopes, ultracentrifuges, spectrophotometers, scintillation counters, and amino acid analyzers. Also available are wildlife facilities at Weldon Springs Experimental Farm and Tyson Tract, both within 30 to 45 minutes of the campus.

# Biology

**Cooperative Programs** The department also participates in a cooperative consortium program in biology with Washington University, St. Louis University, Southern Illinois University-Edwardsville, and the Missouri Botanical Garden.

## Undergraduate Studies

### General Education Requirements

Students must satisfy the University and College general education requirements. Biology courses may be used to meet the science and mathematics requirement of the University.

The foreign language requirement of the College of Arts and Sciences fulfills the departmental requirements for the B.A. degree. There is no foreign language requirement for the B.S. degree.

### Satisfactory/Unsatisfactory Option

Up to 24 credit hours may be taken on a satisfactory/unsatisfactory basis. Excluded from this option are required courses in chemistry, physics, mathematics, or psychology, and biology courses other than Biology 384, Seminar, and Biology 390, Research.

## Degree Requirements

**Bachelor of Arts in Biology** The B.A. degree provides maximum flexibility for biology majors to pursue an undergraduate liberal arts course of study that can lead to professional careers in medicine, allied health, public and environmental health, law, and graduate studies in the life sciences. All biology majors must take at least 37 credit hours in biology including the following **biology foundation** courses: (19 hours)

### Foundation Courses

- 10, Introductory Biology
- 210, Cell Structure and Function
- 224, Genetics
- 246, Introduction to Evolution
- 276, Biological Chemistry
- 289, Seminar

**Breadth Requirements** Flexibility is available in choosing the remaining biology courses, but some restrictions are placed on both the lectures and laboratories that can be taken to make up the 37-hour requirement. At least **one lecture course must be taken in each of the following areas:**

#### Area A

- 213, Vertebrate Physiology
- 235, Development
- 254, General Plant Physiology and Development

#### Area B

- 220, General Ecology
- 280, Animal Behavior
- 342, Population Biology

#### Area C

- 250, Biology of Plants
- 260, Vertebrate Biology
- 264, Invertebrate Biology

**Laboratory Course Requirements** In addition to the lecture course requirements, **three laboratory courses** of two credit hours each will be required. To ensure diversity in laboratory experience, the three laboratories must be distributed so that at least one laboratory is taken in any two of the following four groups.

#### Group 1

- 212, Cell Structure and Function Lab
- 218, Microbiology Lab
- 278, Biological Chemistry Lab
- 319, Immunology Lab
- 338, Virology Lab
- 378, Advanced Biological Chemistry Lab

#### Group 2

- 215, Vertebrate Physiology Lab
- 226, Genetics Lab
- 237, Development Lab
- 315, Comparative and Environmental Physiology Lab
- 322, Neurophysiology Lab
- 332, Advanced Development Lab
- 352, Plant Physiology Lab
- 372, General and Comparative Endocrinology Lab

#### Group 3

- 222, General Ecology Lab
- 282, Animal Behavior Lab
- 344, Population Biology Lab
- 382, Advanced Animal Behavior Lab
- 383, Biosystematics Lab

#### Group 4

- 252, Biology of Plants Lab
- 262, Vertebrate Biology Lab
- 266, Invertebrate Biology Lab
- 307, Nonvascular Plant Lab
- 308, Vascular Plant Lab
- 366, Adaptive Radiation of the Vertebrates Lab

**The remaining three hours required** to complete the **37-hour requirement** are elective hours and can consist of any biology course that is numbered 200 or above. Off-campus transfer students must satisfactorily complete at least 12 credit hours of UMSL biology coursework (including two laboratories) at the 200 level or above before receiving a B.A. degree from the College of Arts and Sciences with a major in biology.

### Related Area Requirements

The following courses in **chemistry** are required:

- 11, Introductory Chemistry I (or 1, General Chemistry I plus 9, General Chemistry II)
- 12, Introductory Chemistry II
- 261, Structural Organic Chemistry

**and one** of the following **chemistry** courses:

- 122, Quantitative Analysis
- 262, Organic Reactions
- 263, Techniques of Organic Chemistry

# Biology

**Note** Many dental and medical schools require an additional semester of organic chemistry. Students should inquire if this additional requirement can be filled by the biological chemistry course.

## Also required:

**Mathematics 31**, Elementary Statistical Methods  
or **Psychology 101**, Psychological Statistics

**Mathematics 101**, Survey Calculus or its equivalent

**Physics 11**, Basic Physics

**Physics 12**, Basic Physics

**Bachelor of Science in Biology** The B.S. degree in biology is designed to prepare students for basic technical positions and graduate studies in the life sciences. Candidates for the degree have the same foundation courses, breadth, and General Education requirements as those seeking the Bachelor of Arts degree. In addition certain minimal requirements in depth of study, laboratory experience, research, data processing, communication skills and background in associated science areas are required.

There is no foreign language requirement for the B.S. degree. However, students should realize that the literature for biological studies is in many different languages and the ability to extract information from this literature is an important skill.

In order to fulfill the requirements for the B.S. degree a minimum of 46 hours but not more than 50 hours must be completed in appropriate biology coursework. A minimum of 23 hours in biology must be completed at UMSL. Candidates must have a cumulative grade point average of 2.0 or better in biology courses.

## Foundation Courses

All candidates for the B.S. degree must successfully complete the same basic courses as those for the B.A. degree.

**Breadth Requirements** To ensure a minimum of breadth, candidates for the B.S. degree must take at least one course in each of the following areas:

### Area A

**213**, Vertebrate Physiology

**216**, Microbiology

**235**, Development

**254**, General Plant Physiology and Development

### Area B

**220**, General Ecology

**280**, Animal Behavior

**342**, Population Biology

**395**, Field Biology

**396**, Marine Biology

### Area C

**250**, Biology of Plants

**260**, Vertebrate Biology

**264**, Invertebrate Biology

**Depth Requirement** Students must take at least two 300-level lecture courses. Selection should reflect the career interest of the student and at least one of the courses should be in a topic area that could lead to an independent research project (Biology 390).

**Laboratory Experience** A minimum of five laboratory courses must be taken to satisfy the Bachelor of Science requirements. It is strongly suggested that at least one laboratory experience be at the 300 level. Introductory and General Biology laboratories do not count toward this requirement.

## Basic Skills Requirement

There are certain skills outside the biology subject matter that are needed to function adequately in a research environment. The Basic Skills Requirement is designed to provide the student with a background in data processing and communication and knowledge in associated science areas.

1) **Data Processing** Students must show a basic understanding of mechanisms for handling data by successfully completing **one** course in each of the following sets:

### Set A. Statistics

**Mathematics 31**, Elementary Statistical Methods (3)

**Psychology 101**, Psychological Statistics (3)

### Set B. Computer Science

**Mathematics 22**, Introduction of Computing, (3)

**Mathematics 122**, Computers and Programming, (3)

2) **Communication Skills** Courses in formal speaking and technical writing are required to develop the minimal communication skills needed to transmit scientific information. The following two courses satisfy this requirement:

### Speech

**Speech Communication 40**, Introduction to Public Speaking (3)

### Writing

**English 161**, Technical Writing (3)

3) **Associated Science Area** The following courses or their equivalents must be successfully completed in science areas related to biology:

**Physics 11**, Basic Physics (4)

**Physics 12**, Basic Physics (4)

**Chemistry 11**, Introductory Chemistry I, (5) or

**Chemistry 1**, General Chemistry I, (3) **plus Chemistry 9**, General Chemistry II (3)

**Chemistry 12**, Introductory Chemistry II, (5)

**Chemistry 261**, Structural Organic Chemistry, (3)

**Chemistry 262**, Organic Reactions, (3)

**Chemistry 263**, Techniques of Organic Chemistry, (2) or **Chemistry 122**, Quantitative Analysis, (3)

**Philosophy 280**, Philosophy of Science, (3)

**Mathematics 101**, Survey Calculus, (4) or **Mathematics 80**, Analytical Geometry and Calculus I, (5)

## Biology

### Research Requirement

All students acquiring a Bachelor of Science degree are strongly encouraged to complete a minimum of two credit hours of undergraduate research, Biology 390. The privilege of doing undergraduate research provides students with a firsthand opportunity to experience the research process under the supervision of a faculty member or off-campus scientist. The project normally includes a library search of pertinent literature, laboratory or field experience and a summary paper.

**Biology majors may take the following 100-level biology courses:**

- 110**, Human Biology
- 115**, Human Heredity and Evolution
- 116**, General Microbiology
- 120**, Environmental Biology
- 150**, Plants and Civilization

These courses **do not count** toward the credit hours required for a major, but they will be included in the credit-hour maximum that a student can take in the major.

**Bachelor of Science in Education with Emphasis in Biology** The B.S.Ed. is a professional degree designed for those individuals who wish to pursue a teaching career in biology in the secondary schools. The biology requirements are the same as for the B.A. degree with the exception that Biology 285, Methods of Teaching Biology in Secondary Schools, and Biology 286, Laboratory in Teaching Life Science are substituted for Biology 389, Seminar. Students must also fulfill the requirements for the B.S.Ed. degree as prescribed by the School of Education.

**Bachelor of Arts in Biology with Teacher Certification** Biology majors interested in teaching biology in secondary schools may obtain teacher certification in cooperation with the School of Education by fulfilling the B.A. or B.S. requirements in biology, with the exception of Biology 389, Seminar and in addition completing the following courses (36 hours):

- Psychology 3**, General Psychology
- Psychology 271**, Adolescent Psychology
- ED FND 111**, The School in Contemporary Society
- ED PSY 312**, The Psychology of Teaching and Learning
- Speech 40**, Introduction to Public Speaking
- SEC ED 213**, Techniques of Secondary School Teaching
- SPC ED 313**, The Psychology and Education of Exceptional Individuals
- SEC ED 385**, Problems of Teaching Reading in Secondary Schools
- SEC ED 290**, Secondary School Student Teaching
- Biology 285**, Methods of Teaching Biology in Secondary Schools
- Biology 286**, Laboratory in Teaching the Life Sciences

Contact the Department of Biology and the School of Education for special advising regarding teacher certification.

### Minor in Biology

Students may minor in biology by fulfilling the requirements, consisting of a minimum of **17 credit hours**, of which at least 9 hours of the biology course credits for the minor must be taken in residence at UMSL.

#### Requirements are:

- 1) **Biology 10**, Introductory Biology (**Biology 1 and Biology 3**, General Biology and Laboratory, may be substituted if a grade of B or better is earned in both courses.)
- 2) At least 9 credit hours should be at the 200 level or above. These may include either lecture or laboratory courses.
- 3) **One** of the following courses:  
**Biology 115**, Human Heredity and Evolution  
**Biology 246**, Introduction to Evolution or **Biology 224**, Genetics (If either of these 200-level courses is taken, it may be used to satisfy in part the 9-credit-hour requirement at the 200 level.)

All students must consult with an adviser to plan an appropriate course of study. This program must be approved by the chairperson of the Department of Biology.

Under certain circumstances, a student may deviate from the prescribed course of study and substitute as their program a group of courses that exhibit a coherent area of specialization to coordinate with a unique career objective. Such a candidate must receive prior approval by the biology department in order to pursue this program.

Candidates must have a cumulative grade point average of 2.0 or better in the minor and **none of the courses may be taken on a satisfactory/unsatisfactory basis.**

## Graduate Studies

### Admission Requirements

In addition to the Graduate School admission requirements, applicants should have completed undergraduate biology courses in genetics and biochemistry, and one course in each of the following areas: cellular-molecular, organismal, and population-ecology. Courses in organic chemistry, college physics, and calculus are also required, and a course in statistics is highly recommended.

Applicants must submit completed application and personal data forms, three letters of recommendation from undergraduate faculty, GRE scores including Advanced Biology, and transcripts of all previous work.



# Biology

## Degree Requirements

**Master of Science in Biology** In addition to the general master's degree requirement, students must complete a minimum of 30 graduate credit hours as follows: 15 or more credits at the 400 level; no more than 10 credits for Biology 490, Graduate Research in Biology; and at least four, but not more than eight, credits of Biology 489, Graduate Seminar.

**Biology 401, Current Topics in Biology, is required and should be taken within the first year of graduate study.**

**Thesis** Students must complete either an experimental or library thesis and defend it in an oral examination before the thesis committee.

**Advisers** Students are responsible for finding permanent thesis advisers. This should be done as soon as students decide upon the specialization area. Students, with their advisers, then recommend an appropriate research committee of three or more faculty members for approval by the graduate committee. This group then plans a suitable program of research and course work and submits it to the graduate dean for approval. Research committees are also responsible for approving the thesis.

## Career Outlook

The biology degree programs, undergraduate and graduate, are designed to prepare the student for further training. The undergraduate degree is designed to prepare the student for professional training in areas such as medicine, teaching, dentistry, veterinary medicine, optometry, and related areas, or for further graduate training in research. The Master of Science program is an extension of the undergraduate program and has as its goals three main objectives: (1) provide research-oriented training and education; (2) provide qualified graduates for doctoral programs; and (3) provide high-school and junior college biology teachers with training necessary to maintain and improve their teaching effectiveness.

# Chemistry

## Faculty

- Lawrence Barton**, Chairperson; Associate Professor\*  
Ph.D., University of Liverpool
- Eugene R. Corey**, Professor\*  
Ph.D., University of Wisconsin
- Joyce Y. Corey**, Professor\*  
Ph.D., University of Wisconsin
- M. Thomas Jones**, Professor\*; Associate Dean, College of Arts and Sciences  
Ph.D., Washington University
- David W. Larsen**, Professor\*  
Ph.D., Northwestern University
- Robert W. Murray**, Curators' Professor\*  
Ph.D., Yale University
- Jordan J. Bloomfield**, Adjunct Professor  
Ph.D., Massachusetts Institute of Technology
- Eric G. Brunngaber**, Adjunct Professor\*  
Ph.D., Columbia University
- Joseph Feder**, Adjunct Professor  
Ph.D., Illinois Institute of Technology
- Robert I. Stearns**, Adjunct Professor  
Ph.D., Tulane University
- Charles W. Armbruster**, Associate Professor\*  
Ph.D., Washington University
- James S. Chickos**, Associate Professor\*  
Ph.D., Cornell University
- David L. Garin**, Associate Professor\*  
Ph.D., Iowa State University
- Harold H. Harris**, Associate Professor\*  
Ph.D., Michigan State University
- James P. Riehl**, Associate Professor\*; Director of Graduate Studies  
Ph.D., Purdue University
- Rudolph E.K. Winter**, Associate Professor\*  
Ph.D., The Johns Hopkins University
- Harold I. Weingarten**, Adjunct Associate Professor  
Ph.D., University of California-Berkeley
- Gordon K. Anderson**, Assistant Professor\*  
Ph.D., University of Glasgow
- Joseph J. Bozell**, Adjunct Assistant Professor  
Ph.D., Colorado State University
- Francine L. Longcor**, Adjunct Assistant Professor,  
Ph.D., University of Missouri-St. Louis
- Jane A. Miller**, Assistant Professor\*  
Ph.D., Tulane University
- William P. Ridley**, Adjunct Assistant Professor,  
Ph.D. University of Minnesota
- John A. Schreifels**, Assistant Professor\*  
Ph.D., University of South Florida
- Michael Sworin**, Assistant Professor  
Ph.D., Brown University
- Philip D. Whitefield**, Adjunct Associate Professor  
Ph.D., University of London
- John Gutweiler**, Lecturer  
Ph.D., St. Louis University
- Rick M. Murray**, Research Associate  
Ph.D. University of Georgia
- Ramasubbu Jeyaraman**, Research Associate  
Ph.D. Annamalai University
- Robert Cabaniss**, Glassblower
- Joseph Kramer**, Electronics Technician
- James R. Wheatley**, Supervisor of Chemistry Stores
- Norman Windsor**, Senior Electronics Technician

\*members of Graduate Faculty

†primary appointment, Missouri Institute of Psychiatry

## General Information

**Degrees and Areas of Concentration** The chemistry department offers courses leading to the B.A. in chemistry; the B.S. in chemistry; in cooperation with the School of Education, the B.S. in education with emphasis in chemistry and the B.A. in chemistry with teacher certification; and, in cooperation with the School of Business Administration, the B.A. in chemistry with a business option.

The chemistry department is accredited by the American Chemical Society. Students completing the B.S. degree in chemistry are certified to the American Chemical Society and are well prepared for graduate study in chemistry or a career in the chemical industry.

The chemistry department also offers work leading to the M.S. degree in chemistry, with or without a thesis. The Ph.D. degree in chemistry is offered in the emphasis areas: inorganic, organic, and physical chemistry.

In addition to a balanced program of basic graduate courses, the department offers special topics courses and seminars in current research areas. Research is being carried on in inorganic, organic, and physical chemistry areas by postdoctoral associates, faculty members, and graduate and undergraduate students.

The department provides students with opportunities for strong interaction with faculty representing the various areas. Students and faculty working in one area consult freely with members in other areas. In addition, a number of joint research projects are currently under investigation involving faculty and students from two or more areas. The department currently includes seventeen full-time and nine part-time members.

**Departmental Honors** The chemistry department will award Departmental Honors to those B.A. and B.S. degree candidates in chemistry with an overall grade point average of 3.2. They must also successfully complete Chemistry 290, Chemical Research, and have presented an acceptable thesis.

**Minor in Chemistry** A minor in chemistry is available to students majoring in related areas. The course selection provides a basic introduction to chemistry and ensures a minimum laboratory component of at least 10½ contact hours.

## Undergraduate Studies

### General Education Requirements

Students must satisfy the University and College General Education requirements. Courses in chemistry may be used to meet the University's science and mathematics area requirement. The College's foreign language requirement fulfills the departmental requirements for B.A. candidates; B.S. candidates should meet the requirements in French, German, Japanese or Russian. Chemistry majors normally include Language 100 in their foreign language sequence.

# Chemistry

**Satisfactory/Unsatisfactory Restrictions** Chemistry majors may not take required chemistry, mathematics, or physics courses on a satisfactory/unsatisfactory basis, nor may B.S. degree candidates take the six elective hours in science on this option. No freshman may take Chemistry 11, Introductory Chemistry I, and Chemistry 12, Introductory Chemistry II, on a satisfactory/unsatisfactory basis regardless of major.

## Degree Requirements

**Bachelor of Arts in Chemistry** This degree is intended primarily for preprofessional students in the health sciences and related areas, as well as prelaw students interested in patent law. Candidates must complete the following **chemistry** courses: (32 hours)

- 11, Introductory Chemistry I
- 12, Introductory Chemistry II
- 122, Quantitative Analysis
- 202, Introduction to Chemical Literature
- 231, Physical Chemistry I
- 232, Physical Chemistry II
- 233, Laboratory in Physical Chemistry I
- 261, Structural Organic Chemistry
- 262, Organic Reactions
- 263, Techniques of Organic Chemistry
- 289, Seminar (2 credit hours)

No more than 45 hours in chemistry may be applied toward the degree. Each chemistry major must present a seminar and pass a comprehensive examination during the senior year.

**Bachelor of Science in Chemistry** This is the first professional degree in chemistry. It may be taken as a terminal degree by students intending to become professional chemists or for preparation for graduate work in chemistry or biochemistry. Candidates must complete the 32 hours required for the B.A. degree in chemistry. In addition, the following **chemistry** courses are required: (12 hours)

- 234, Laboratory in Physical Chemistry II
- 264, Synthetic and Analytical Methods of Organic Chemistry
- 324, Instrumental Analysis
- 341, Inorganic Chemistry I
- 343, Inorganic Reactions

Students must also take six elective hours of advanced work in science at the 200 level or above. It is preferred that these hours be in chemistry; however, three of these hours may be taken in biology, computer science, mathematics or physics.

Students are encouraged to take Chemistry 290, Chemical Research, to fulfill at least a portion of the advanced elective requirement.

At least 47, but no more than 50, hours of chemistry courses may be applied toward the degree. Each candidate must present a seminar and pass a comprehensive examination during the senior year.

## Related Area Requirements

### Bachelor of Arts and Bachelor of Science in Chemistry

Candidates for both degrees must also complete:

- Mathematics 80**, Analytic Geometry and Calculus I
- Mathematics 175**, Analytic Geometry and Calculus II
- Mathematics 201**, Analytic Geometry and Calculus III
- Physics 111**, Physics: Mechanics and Heat
- Physics 112**, Physics: Electricity, Magnetism and Optics

and one physics laboratory course, preferably Physics 201, Elementary Electronics I.

**B.S. degree in Secondary Education with an Emphasis in Chemistry** In addition to the general requirements for the B.S. degree in secondary education, students must complete the 32 required hours for the B.A. degree in chemistry with the following exceptions: Chemistry 280, Methods of Teaching Chemistry in Secondary Schools, is required instead of Chemistry 202, Introduction to Chemical Literature, and Chemistry 289, Seminar. Physics 1, Foundations of Modern Physical Theory, and Chemistry 371, Biochemistry, are recommended.

### Bachelor of Arts in Chemistry with Teacher Certification

Students must complete the B.A. in chemistry requirements, as well as the following courses:

- ED FND 111**, The School in Contemporary Society
- SEC ED 213**, Techniques of Secondary School Teaching
- SEC ED 290**, Secondary School Student Teaching
- ED PSY 312**, The Psychology of Teaching and Learning
- Chemistry 280**, Methods of Teaching Chemistry in Secondary Schools
- Psychology 3**, General Psychology
- Psychology 271**, Adolescent Psychology

**Bachelor of Arts in Chemistry for Students with an Interest in Business** The following courses are suggested for students seeking careers in chemical sales, market research, and so forth. In addition to the B.A. in chemistry requirements, the following core courses are suggested:

- Economics 51**, Principles of Microeconomics
- Business Administration 131**, Elementary Statistics
- Business Administration 140**, Fundamentals of Financial Accounting

Students may then choose to complete **one** of the following three sets of courses:

#### 1 Marketing Management

- Business Administration 206**, Basic Marketing
- Business Administration 275**, Marketing Intelligence
- Business Administration 303**, Industrial Marketing

#### 2 Financial Management

- Business Administration 204**, Financial Management
- Business Administration 334**, Investments
- Business Administration 350**, Financial Policies

#### 3 Accounting

- Business Administration 145**, Managerial Accounting
- Business Administration 340**, Intermediate Accounting
- Business Administration 345**, Cost Accounting

# Chemistry

## Requirements for the Minor

Students may complete a minor in chemistry as described below:

The **three required courses** are:

**Chemistry 11**, Introductory Chemistry I

**Chemistry 12**, Introductory Chemistry II

**Chemistry 261**, Structural Organic Chemistry

## Electives

At least **one course** is required from each of the two groupings below:

### Lecture Courses

**Chemistry 231**, Physical Chemistry I

**Chemistry 262**, Organic Reactions

**Chemistry 371**, Biochemistry

### Laboratory Courses

**Chemistry 122**, Quantitative Analysis

**Chemistry 263**, Techniques of Organic Chemistry

Courses which are prerequisites to subsequent courses in the minor may not be taken on a satisfactory/unsatisfactory basis. A GPA of at least 2.0 is required for the courses presented for the minor.

## Graduate Studies

### Admission Requirements

Individuals with at least the equivalent of the B.A. degree in chemistry may be admitted to the Graduate School as candidates for the M.S. degree or as applicants for the Ph.D. degree in chemistry. Students with bachelor's degrees in fields other than chemistry may be admitted to pursue graduate chemistry studies under the following conditions: they must make up background deficiencies, usually by taking undergraduate course work, and will not be considered as applicants for the Ph.D. degree until such deficiencies have been removed. M.S. candidates must remove deficiencies within two years, and Ph.D. candidates must complete all remedial work during the first calendar year of enrollment.

The ultimate choice of whether students may enroll in the M.S. or Ph.D. degree programs resides with the chemistry faculty. Decisions are based on performance on the placement examinations and in course work at UMSL, as well as considerations of students' backgrounds.

The department admissions committee, which makes admission recommendations to the chairperson, usually considers applicants' grade-point averages and normally requires above-average performance in all areas of chemistry (general, analytical, organic, physical, and inorganic) as well as physics and mathematics or other evidence of high aptitude for graduate work in chemistry. Applicants' GRE scores, letters of recommendation, and academic programs are also considered.

## Financial Support

Teaching assistantships are available to qualified applicants for the academic year, and a limited number are also available during the summer. Research assistantships and fellowships are available for advanced students. For further information, contact the graduate Admission Committee, Department of Chemistry.

## Preliminary Advisement

Incoming students are given comprehensive placement examinations, and, on the basis of the examination scores and student needs and interests, the departmental director of graduate studies prescribes a tentative plan of study in consultation with students. Students may be required to repeat undergraduate course work for no credit. Students must take chemistry courses for graduate credit at the 300 and 400 level, including one each in inorganic, organic and physical chemistry, and courses outside the discipline as recommended by the department. (Chemistry 341, Inorganic Chemistry I, may not be used to satisfy the core/requirement in inorganic chemistry.)

## Master's Degree Requirements

**Master of Science in Chemistry** Candidates for the M.S. degree in chemistry must take the placement examinations and, if necessary, repeat undergraduate courses for no credit. The director of graduate studies will advise students of their programs before registration.

Students selected for the M.S. program and others enrolling by personal choice are usually required to complete the M.S. degree before their admission to the Ph.D. degree program can be considered.

A minimum of 30 hours is required, including three hours in Chemistry 489, Chemistry Colloquium. No more than three hours in Chemistry 489 may be applied toward the program. Students are not required to take the cumulative examinations or foreign language study.

**Master of Science in Chemistry with Thesis** Students selecting this option must be enrolled full-time in the day division for at least two consecutive semesters. During this time, students are expected to enroll in Chemistry 490, Graduate Research in Chemistry, and work on their theses.

A maximum of 12 hours of Chemistry 490 may be applied toward the required 30 hours. At least nine hours must be at the 400 level, excluding Chemistry 490. A maximum of nine hours in 200-level or above courses outside the department may be accepted if students receive prior approval of their advisers and the department.

Students are expected to follow all other general requirements of the Graduate School regarding master's degree and thesis requirements.



# Chemistry

**Master of Science without Thesis** Unlike the thesis option, students need not be enrolled full-time. Of the required 30 hours, 15 credits must be at the 400 level, a maximum of six credits of Chemistry 490, Graduate Research in Chemistry, may be included in place of 300-level courses. A maximum of 12 hours taken in 200-level or above courses outside the department may be accepted with prior approval of the graduate studies director.

## Doctoral Degree Requirements

In addition to the Ph.D. requirements set forth by the Graduate School, students seeking the Ph.D. in chemistry must take a series of cumulative examinations given nine times a year. Students must pass three of the examinations by the end of the third year and a total of eight examinations before completing the program. At least six of these examinations should be in the student's specialization area. Students are encouraged to begin the examination sequence during the first year of graduate study, but must start no later than the second year in the Ph.D. program. The examinations are usually given the second Saturday of each month, September through May. The mechanism for designing and deciding on passing and failing grades for each examination resides with faculty members in each specialization area.

**Seminar Requirement** Students must present a seminar in their third year and during each subsequent year. One of the seminars is for the purpose of describing dissertation research. Students must enroll in Chemistry 489, Chemistry Colloquium, each semester they are in residence.

**Advancement to Precandidacy** Students will be advanced to precandidate status after completing 20 hours of graduate work, including research hours; passing three cumulative examinations; maintaining good standing; and selecting their research advisers.

**Advancement to Candidacy** In addition to general Graduate School requirements for advancement to candidacy, students must complete the following:

**1** Sixty hours, of which 21 should be in nondissertation work. The 21 hours **may not** include:

**Chemistry 324**, Instrumental Analysis

**Chemistry 341**, Inorganic Chemistry I

**Chemistry 343**, Inorganic Reactions

**Chemistry 419**, Advanced Reading in Chemistry

**Chemistry 489**, Chemistry Colloquium

but should include one from each area: organic, inorganic, and physical chemistry.

**2** Pass eight cumulative examinations.

**3** Satisfactorily demonstrate scientific proficiency in French, German, or Russian. Students may satisfy this requirement by completing Scientific Language 100 in one of the foreign languages required, with a grade of C or better, or the equivalent; receipt of a score acceptable to the department from the GRE in one of the languages required, or satisfactory performance on a language examination administered by the department.

**4** Present at least one seminar to the department on the dissertation research.

**5** Participate in the undergraduate academic program as laboratory assistant for at least one semester.

**6** Be in good standing.

## Dissertation

Six copies of the dissertation must be submitted upon completion of the graduate research problem.

## Probation and Dismissal

Students are dismissed from the program if they fail to pass at least three cumulative examinations before the end of the second year **as applicants** for the Ph.D. or otherwise fail to meet the standards set forth by the Graduate School.

## Career Outlook

The B.S. degree in chemistry is the usual foundation for graduate study in chemistry, while any bachelor's degree in chemistry provides students with professional competence to enter the chemical industry. The St. Louis Metropolitan Area is a major center for industrial chemistry, and the demand for graduates consistently exceeds the supply.

A major in chemistry provides students excellent preprofessional training in the health sciences. A double major in chemistry and biology is often chosen by premedical and pre dental students and those interested in graduate work in biochemistry and biology. A minor in chemistry provides the minimum qualifications and training for a position as laboratory technician in industry, hospital laboratories, etc.

## Economics

### Faculty

- Robert L. Sorensen**, Chairperson; Associate Professor\*  
Ph.D., Virginia Polytechnic Institute
- Robert Loring Allen**, Professor\*  
Ph.D., Harvard University
- Elizabeth M. Clayton**, Professor\*  
Ph.D., University of Washington
- Joseph P. McKenna**, Professor\*  
Ph.D., Harvard University
- William E. Mitchell**, Professor\*; Associate Graduate Coordinator  
Ph.D., Duke University
- Donald Phares**, Professor\*; Director, Center for Metropolitan Studies  
Ph.D., Syracuse University
- Thomas R. Ireland**, Associate Professor\*; Undergraduate Coordinator  
Ph.D., University of Virginia
- Sharon G. Levin**, Associate Professor\*  
Ph.D., University of Michigan
- Herbert D. Werner**, Associate Professor\*  
Ph.D., University of California-Berkeley
- Michael B. Dompierre**, Assistant Professor\*  
Ph.D., University of Michigan
- Hassan Khademian**, Assistant Professor\*  
Ph.D. Michigan State University
- Michael Leonasio**, Assistant Professor\*  
Ph.D., Cornell University
- Heydar Pourian**, Assistant Professor\*  
Ph.D., University of Wisconsin-Milwaukee
- Sarapage McCorkle**, Instructor;  
Director, Center for Economic Education  
M.A., University of Missouri-St. Louis
- Kathleen Phares**, Lecturer  
M.A., University of Missouri-St. Louis

\*members of Graduate Faculty

The economics department is actively engaged in teaching, research, publishing, and community service. Members have received numerous grants for basic and applied research projects. In addition to published research, members regularly present papers and serve as moderators and discussants at professional meetings. They have been honored with teaching and research fellowships and as visiting scholars at leading universities throughout the United States. Faculty members actively participate in community service; they address local citizen and business groups on topics of current interest, and frequently act as consultants for public service groups and local governmental units.

## General Information

**Degrees and Areas of Concentration** Several degree programs are offered by the economics department. The B.A. in economics provides a flexible, liberal arts orientation for students seeking careers in general business or government. The program, however, also gives students opportunities to prepare for graduate professional training as economists by incorporating mathematics and other specialized courses. The B.S. in economics places more emphasis upon the statistical and quantitative aspects of economics to prepare students for careers in economic research and forecasting.

The economics faculty considers research an integral part of good teaching. Research projects have dealt with housing, transportation, employment, taxation, zoning, Latin America, the Soviet Union, international trade flows, agriculture, energy, consumer economics, economic history, and public choice.

The economics department also offers courses on the undergraduate level in geography.

A graduate program offers work leading to the M.A. degree in economics in preparation for careers in teaching, research, government, and industry. The program includes course work in micro- and macroeconomic theory; urban, international, industrial, and quantitative economics; and research methodology. The program can accommodate prospective full-time students as well as those who wish to study part time solely in the evening. Classes are small, and student-faculty interaction is encouraged.

The economics department cooperates with the School of Business Administration and the Department of Political Science in offering a master's degree program in public policy administration.

**Departmental Honors** The economics department has established the following requirements for departmental honors:

- 1 A minimum GPA of 3.5 overall and in the major.
- 2 Satisfactory completion of Economics 492, Seminar in Economic Research I. This course will automatically serve as an honors thesis or project.

**Minor in Economics** A minor in economics is also available. See the section below for requirements.

## Undergraduate Studies

### General Education Requirements

All undergraduate economics majors must meet the University and College of Arts and Sciences general education requirements. B.S. degree candidates, however, do not need to fulfill the College's foreign language requirement. B.A. candidates may take any foreign language to meet this requirement. Courses in economics may be used to meet the University social sciences requirement.

# Economics

Education majors specializing in economics must fulfill the requirements for the bachelor of arts degree. These majors are responsible for obtaining an adviser in the Department of Economics.

## Satisfactory/Unsatisfactory Option

Courses outside the major field and Economics 51, Principles of Microeconomics, and Economics 52, Principles of Macroeconomics, may be taken on a satisfactory/unsatisfactory basis.

## Degree Requirements

**Bachelor of Arts in Economics** Candidates for the B.A. degree must take at least 30, but no more than 45, hours in economics. At least 24 hours must be above the 100 level. The following courses are required:

**Economics 51**, Principles of Microeconomics  
**Economics 52**, Principles of Macroeconomics  
**Economics 220**, Money and Banking  
**Economics 250**, Intermediate Economic Theory: Macroeconomics  
**Economics 251**, Intermediate Economic Theory: Microeconomics  
**Economics 380**, History of Economic Thought

Also required are:

**Business Administration 140**, Fundamentals of Financial Accounting  
**Mathematics 31**, Elementary Statistical Methods or **Business Administration 131**, Elementary Statistics

Requirements outside the economics department should be completed by the end of the sophomore year.

Since many theories in economics make use of calculus, it is also recommended that students take:

**Mathematics 80**, Analytic Geometry and Calculus I or  
**Mathematics 101**, Survey Calculus

The department encourages students to complete the minimum 30 hours in economics and then develop as much breadth as possible in related fields. For example, students interested in general business or investments might select courses in business administration, particularly finance. Courses in history, philosophy, or political science might be selected by students interested in public administration.

## Bachelor of Science in Economics

Candidates for the B.S. degree must complete at least 30 hours, but no more than 45, in economics. At least 24 hours must be above the 100 level. The following courses are required:

**Economics 51**, Principles of Microeconomics  
**Economics 52**, Principles of Macroeconomics  
**Economics 220**, Money and Banking  
**Economics 250**, Intermediate Economic Theory: Macroeconomics  
**Economics 251**, Intermediate Economic Theory: Microeconomics

Also required are:

**Business Administration 140**, Fundamentals of Financial Accounting

**Mathematics 31**, Elementary Statistical Methods or **Business Administration 131**, Elementary Statistics  
**Mathematics 80**, Analytic Geometry and Calculus I  
**Mathematics 175**, Analytic Geometry and Calculus II  
**Mathematics 201**, Analytic Geometry and Calculus III  
**Mathematics 122**, Computers and Programming or **Business Administration 104**, Introduction to FORTRAN Programming

Elective courses in economics for B.S. degree candidates should broaden the student's preparation in applied fields such as urban economics, public finance, international trade and finance, economic development, and labor and industrial organization.

Students interested in graduate study should seek the advice of their undergraduate adviser in order to comply with the entrance requirements of the graduate school they plan to attend.

**Requirements for the Minor** Candidates for a minor in economics must take a minimum of 18 hours in economics. At least 12 hours must be above the 100 level. The following courses are required:

**Economics 51**, Principles of Microeconomics  
**Economics 52**, Principles of Macroeconomics

It is also recommended that students take:

**Economics 250**, Intermediate Economic Theory: Macroeconomics  
**Economics 251**, Intermediate Economic Theory: Microeconomics

Also required is a GPA of 2.0 or better for courses presented for the minor.

Satisfactory/unsatisfactory may be applied to Economics 51 and 52 only.

## Graduate Studies

### Admission Requirements

Application for admission may be submitted at any time, although classwork formally begins in late August and in mid-January. An undergraduate major in economics is not required for acceptance into the program, but studies to remove any deficiencies in prior training will have to be completed in addition to the regular M.A. requirements. In addition to the general admission requirements of the Graduate School, applicants must have successfully completed the following courses, or the equivalent, before admission as regular students:

**Mathematics 31**, Elementary Statistical Methods  
**Mathematics 101**, Survey Calculus  
**Economics 250**, Intermediate Economic Theory: Macroeconomics or **Business Administration 411**, Analysis of National Economic Environment  
**Economics 251**, Intermediate Economic Theory: Microeconomics or **Business Administration 410**, Managerial Economic Analysis

For further information about the program and an application form, write or call the graduate coordinator, Department of Economics.

## Economics

### Degree Requirements

**Master of Arts in Economics** Candidates for the M.A. in economics must complete 30 hours for the degree. No more than six hours of work outside the field may be applied toward the program.

The following courses are required:

**Economics 365**, Economic Statistics and Econometrics

**Economics 401**, Macroeconomic Analysis

**Economics 402**, Microeconomic Analysis

**Economics 492**, Seminar in Economic Research I

**Economics 493**, Seminar in Economic Research II

Also required are any **two** of the following:

**Economics 420**, Advanced Topics in Quantitative Economics and Policy

**Economics 430**, Advanced Topics in International Economics

**Economics 460**, Advanced Topics in Industrial Economics

**Economics 470**, Advanced Topics in Urban Economics

All students must pass a comprehensive examination—written, oral, or both. Students failing the examination may repeat it at the end of six months, but may not take it more than twice.

### Career Outlook

Economists study public policy issues such as inflation, unemployment, taxation, and energy, as well as decision-making in business and households. Many UMSL graduates in economics have entered careers in banking, industry, and government. Others have continued their study of economics in graduate schools. Economics also has proved to be an advantageous major for many prelaw students. Some course work in accounting, statistics, and mathematics is required of all economics majors. Moreover, within economics, a variety of courses will meet your needs for career preparation, special skill competencies, and general knowledge of economics in business or public life.

The M.A. degree in economics is designed to prepare candidates for positions as professional economists. Career opportunities are available in economic research and operational areas in banks or other financial institutions, in business, international organizations, and various governmental agencies; in junior-college teaching; and in sales administration, production control, urban planning, and international government operations.



# English

## Faculty

**Marcia Dalbey**, Chairperson; Associate Professor\*  
Ph.D., University of Illinois

**B. Bernard Cohen**, Professor\*  
Ph.D., Indiana University

**William C. Hamlin**, Professor;  
Associate Chairperson; Graduate Coordinator\*  
Ph.D., University of Missouri-Columbia

**Eugene B. Murray**, Professor\*  
Ph.D., Columbia University

**Peter Wolfe**, Professor\*  
Ph.D., University of Wisconsin

**David Carkeot**, Associate Professor\*  
Ph.D., Indiana University

**Richard M. Cook**, Associate Professor\*  
Ph.D., University of Michigan

**Sylvia J. Cook**, Associate Professor\*  
Ph.D., University of Michigan

**Curt H. Hartog**, Associate Professor\*  
Ph.D., University of Illinois

**Charles Larson**, Associate Professor\*  
Ph.D., Indiana University

**Bruce L. Liles**, Associate Professor\*  
Ph.D., Stanford University

**John T. Onuska, Jr.**, Associate Professor\*  
Ph.D., Harvard University

**Howard Schwartz**, Associate Professor\*  
M.A., Washington University

**James E. Tierney**, Associate Professor\*  
Ph.D., New York University

**Jane Williamson**, Associate Professor\*  
Ph.D., Bryn Mawr College

**Alice Brand**, Assistant Professor\*  
Ed.D., Rutgers University

**Jane Parks-Clifford**, Instructor  
M.A., University of Missouri-Columbia

**Howard Benoist**, Lecturer  
Ph.D., University of Pennsylvania

**Jean Blackburn**, Lecturer  
M.A., St. Louis University

**Dennis Bohnenkamp**, Lecturer  
M.A., University of Missouri-Columbia

**Ellie Chapman**, Lecturer  
M.A., Murray State University

**Jane Flinn**, Lecturer  
M.A., University of Pennsylvania

**Sally Jackoway**, Lecturer  
M.A., Washington University

**Lynn Lamphear**, Lecturer  
M.A., University of Missouri-St. Louis

**Lauren Lepow**, Lecturer  
Ph.D., University of Connecticut

**Sandra Sherwood**, Lecturer  
Ph.D., University of Illinois

**Nanora Sweet**, Lecturer  
M.A., University of Missouri-Columbia

**Susan Tierney**, Lecturer  
M.A., Southern Illinois University-Edwardsville

**Adam Casmier**, Visiting Lecturer  
M.A., University of Notre Dame

\*members of Graduate Faculty

## General Information

**Degrees and Areas of Concentration** The English department offers or participates in the offering of the B.A. in English, the B.A. in English with certification for secondary teaching, and the B.S. in secondary education with a major in English. There is a special program for those students who are taking a B.A. with a double major, and there is a minor in English. The department sponsors a set of four courses in library science and a minor in library science. Additionally, students with any major in the University may earn a Certificate in Writing so that they may demonstrate evidence of training in creative, journalistic or technical writing.

A graduate studies program is also available. The Master of Arts program in English is designed to provide the student with a comprehensive coverage of literature and language rather than with a specialization in any one area of study. The program allows students to select courses from any of the four areas of study offered by the department: English literature, American literature, linguistics, and writing.

**Departmental Honors** Candidates for departmental honors in English must achieve a 3.2 average in English at graduation and complete an undergraduate or graduate seminar in English, the final paper for which must be acceptable to the instructor as an honors thesis.

## Undergraduate Studies

### General Education Requirements

Majors must meet the University general education requirements and the requirements of the School or College from which they expect to receive their degree. English courses may be used to meet the University's humanities requirement, **except** the following:

- 09, Basic Writing
- 10, Freshman Composition
- 11, Freshman Composition for International Students
- 22, Traditional Grammar
- 65, Honors Exposition
- 115, Feature Writing
- 116, News Writing
- 160, Advanced Expository Writing
- 161, Technical Writing
- 162, Business Writing
- 262, The Curriculum and Methods of Teaching English
- 300, Writing in the Professions
- 305, Writing for Teachers

The College's foreign language requirement may be met in any language.

### Satisfactory/Unsatisfactory Option

English majors may take any English course on a satisfactory/unsatisfactory basis **except** the following:

- 09, Basic Writing
- 10, Freshman Composition
- 11, Freshman Composition for International Students
- 65, Honors Exposition
- 160, Advanced Expository Writing
- 161, Technical Writing
- 162, Business Writing
- 262, The Curriculum and Methods of Teaching English

# English

## Degree Requirements

**Bachelor of Arts in English** English majors must complete at least 36, but no more than 45, hours in English **exclusive** of English 09, Basic Writing; English 10, Freshman Composition; English 11, Freshman Composition for International Students, English 65, Honors Exposition; and the courses in library science. Required English courses include:

1 Any **two** courses from the following sequence:

- 131, English Literature I
- 132, English Literature II
- 133, Introduction to Poetry
- 134, Introduction to Drama
- 135, Introduction to Fiction

2 English 160, Advanced Expository Writing (For English majors, this course is a prerequisite or corequisite for 300-level courses in English).

3 Students must also complete **one** course **from five** of the following seven areas:

### Area 1 Medieval English

- 324, Chaucer
- 325, Medieval English Literature

### Area 2 Shakespeare

- 337, Shakespeare: Tragedies and Romances
- 338, Shakespeare: Comedies and Histories

### Area 3 The Renaissance

- 332, Elizabethan Poetry and Prose
- 339, Tudor and Stuart Drama
- 342, Early Seventeenth-Century Poetry and Prose
- 345, Milton

### Area 4 Restoration and Eighteenth-Century English

- 346, Restoration and Eighteenth-Century Drama
- 352, Age of Dryden and Pope
- 353, Age of Johnson
- 364, The Eighteenth-Century English Novel

### Area 5 Nineteenth-Century English

- 365, The Nineteenth-Century English Novel
- 368, Early Romantic Poetry and Prose
- 369, Later Romantic Poetry and Prose
- 371, Prose and Poetry of the Victorian Period
- 372, The Later Nineteenth Century

### Area 6 Nineteenth-Century American

- 373, Selected Major American Writers I
- 374, Selected Major American Writers II
- 375, American Fiction to World War I

### Area 7 Twentieth-Century English/American

- 376, Modern American Fiction
- 383, Modern British Fiction
- 384, Modern Poetry
- 385, Modern Drama
- 386, Poetry Since World War II

No more than six hours of English taken on a satisfactory/unsatisfactory basis may be counted toward the 36-hour minimum requirement for a major in English. Majors must complete at least 18 graded (i.e., not satisfactory/unsatisfactory) hours in English courses at the 200 level or above with a grade point average of 2.0 or better in these courses.

Transfer students majoring in English must complete a minimum of 12 graded hours in English courses at the 200 level or above with a grade point average of 2.0 or better in these courses.

Work in 100-level courses provides a background in literary history and forms, as well as the means for discussing literary issues, on paper and orally. Thus, the department recommends that students take the English 131-135 sequence by the end of the sophomore year.

Students should consult with faculty advisers to determine which upper-level courses best satisfy their major needs and interests.

**Bachelor of Arts in English with a Double Major** For those students who are graduating with a double major, the requirements for a B.A. in English are: Each English major must complete a minimum of 30, but no more than 45, hours in English **exclusive** of English 09, Basic Writing; English 10, Freshman Composition; English 11, Freshman Composition for International Students; and English 65, Honors Exposition. The 30 hours must include at least 15 graded (i.e., not satisfactory/unsatisfactory) hours in English courses at the 300 level, with an overall grade point average of 2.0 or better in these courses.

Transfer students majoring in English with a double major must complete at UMSL a minimum of 12 graded hours in English courses at the 300 level with a grade point average of 2.0 or better in these courses.

**Bachelor of Arts in English with Certification for Secondary Education** In addition to the requirements for the B.A. in English, students must meet the following requirements for secondary certification:

1 **Two** courses in American literature. This requirement may be met by courses counted for the major.

**a** American literature must include a unit or course in the literature of ethnic groups.

**b** American literature must include a unit or course in literature for adolescents. Alternatively, this requirement may be met by an adolescent literature unit within a children's literature course.

2 **12 hours** in composition and rhetoric. The following courses may be counted:

- English 10, Freshman Composition
- English 65, Honors Exposition
- English 160, Advanced Expository Writing

# English

**English 160.** Advanced Expository Writing, is required. Other suggested courses include creative writing, journalism, business writing, and English 305, Writing for Teachers.

**3 6 hours** in linguistics.

**a** Must include 2 of the following courses:

**English 220,** Development of the English Language

**English 221,** American Dialects

**English 322,** Modern English Grammar

**b** Candidates must pass the English-A.F.S.E. Test in Basic Grammar.

**c** English 22, Traditional Grammar, is recommended preparation for the above test; English 22 does not, however, count toward the 6 hours of required linguistics.

**4 English 262,** The Curriculum and Methods of Teaching English (taken concurrently with student teaching).

**5** Candidates for certification in Missouri must have a 2.5 cumulative G.P.A., computed from the beginning of freshman year and including all colleges attended.

Courses in professional education listed as requirements under the secondary education department are also required for secondary certification. Note that Education 385, Problems of Teaching Reading in Secondary Schools, is required for prospective English teachers.

**Bachelor of Science in Secondary Education with a Major in English** The required courses in English and professional education are the same as those for the B.A. with certification for secondary education. However, students fulfill the general education requirements of the School of Education rather than those of the College of Arts and Sciences.

**Minor in English** A student may minor in English by taking at least 18 hours of English courses, exclusive of English 09, Basic Writing, English 10, Freshman Composition, English 11, Freshman Composition for International Students, and English 65, Honors Exposition. At least 12 of these hours must be at the 200 or 300 level. Every student taking a minor in English must consult with an adviser in the English department in order to ensure a coherent program of studies. The GPA in courses for the minor must be 2.0 or better.

No more than 3 hours taken on a satisfactory/unsatisfactory basis may be counted toward the 18-hour minimum.

**Minor in Library Science** A minor will consist of four core courses (11 hours) and one elective (three hours).

The four required courses are:

**Library Science 220,** Introduction to Cataloging

**Library Science 221,** Selection and Acquisition of Library Materials

**Library Science 222,** Introduction to Reference

**Library Science 223,** Administration of School Libraries/Media Centers

The elective may be chosen from:

**ELE ED230,** Children's Literature and Readings

**ELE ED 340,** Selection and Utilization of Educational Media

**ED TEC 345,** Preparation of Graphic Materials for Audio-Visual Education

**ED TEC 493,** Practicum in Educational Technology

**Certificate Program in Writing** A student may receive the Certificate in Writing by completing a total of 18 hours in writing courses chosen from the following:

**English 50,** Short Story Writing

**English 51,** Poetry Writing

**English 115,** Feature Writing

**English 116,** News Writing

**English 160,** Advanced Expository Writing

**English 161,** Technical Writing

**English 162,** Business Writing

**English 217,** Professional Editing

**English 230,** Writing Literary Criticism

**English 251,** Advanced Creative Writing

**English 252,** Advanced Fiction Writing

**Speech 212,** Writing for Radio and Television

**English 261,** Advanced Business and Technical Writing

**English 295,** Independent Writing Project (This course is required. It is to be taken as the last course a student will take in his/her program, and it is to be used to generate an extensive final project.)

**English 300,** Writing in the Professions

**English 305,** Writing for Teachers

**Note: English 261,** Advanced Business and Technical Writing, may be substituted for **English 295** as the required final course for students who wish to do their final projects in business or technical writing.

Courses taken to fulfill requirements for the Writing Certificate may not be taken on a satisfactory/unsatisfactory basis.

## Graduate Studies

### Admission Requirements

To enter the graduate program in English, a candidate must satisfy the requirements both of the Graduate School and of the Department of English. A candidate should have a bachelor's degree, with at least 24 hours in English courses. Normally only students with a grade point average of at least 3.0 in undergraduate English courses and with an overall undergraduate average of 2.75 will be considered. In addition, the English department requires letters of recommendation from two of the applicant's former English teachers. The graduate committee will use the letters, the undergraduate record, and the Graduate Record Examination scores as the basis for its decision. Applications should be submitted according to the following schedule: May 1 for the Fall semester; May 1 for the Summer session; and December 1 for the Winter semester. Late applications will be considered for the upcoming semester only if all spaces for that semester have not been filled.

## English

**Teaching Assistantships** A number of teaching assistantships are available for qualified applicants. Applications should be submitted to the graduate coordinator of the English department no later than March 15 preceding the academic year for which the appointment is desired.

### Degree Requirements

**Master of Arts in English** In addition to the Graduate School requirements, students must complete at least 24 of the required 30 hours for graduation in 400-level courses, all of which must be approved by the department and Graduate School.

At the outset of the program, students must take English 400, Introduction to Graduate Study in English, which focuses upon bibliography, research methods, and literary criticism. Students must receive graduate credit for English 400. At the conclusion of the program, students may elect English 499, Master's Essay. While not required, this course is strongly recommended because of the unique opportunity it provides to conduct research and to write a substantial essay under the personal direction of a member of the Graduate Faculty.

Further details regarding the program may be found in *The Master of Arts in English*, available from the English department.

### Career Outlook

In addition to traditional employment as teachers at the primary, secondary, and community-college levels, recent UMSL graduates in English are working in journalism, editing, advertising, public relations, and other fields that place a premium upon creation and interpretation of the written word. Numerous recent English majors have successfully entered law school.



# History

## Faculty

**James Neal Primm**, Chairperson; Professor  
Ph.D., University of Missouri-Columbia

**Mark A. Burkholder**, Professor\*  
Ph.D., Duke University

**Susan M. Hartmann**, Professor\*  
Ph.D., University of Missouri-Columbia

**William S. Maltby**, Professor\*  
Ph.D., Duke University

**Richard H. Mitchell**, Professor\*  
Ph.D., University of Wisconsin

**George F. Putnam**, Professor\*  
Ph.D., Harvard University

**Arthur H. Shaffer**, Professor\*  
Ph.D., University of California-Los Angeles

**Blanche M. Touhill**, Professor\*; Associate Vice Chancellor for  
Academic Affairs  
Ph.D., St. Louis University

**Roy Gene Burns, Jr.**, Associate Professor\*; Undergraduate Coordinator  
Ph.D., University of Missouri-Columbia

**Jerry M. Cooper**, Associate Professor\*; Graduate Coordinator  
Ph.D., University of Wisconsin

**Walter Ehrlich**, Associate Professor\*  
Ph.D., Washington University

**Paul Corby Finney**, Associate Professor\*  
Ph.D., Harvard University

**Louis S. Gerteis**, Associate Professor\*  
Ph.D., University of Wisconsin

**John R. Gillingham**, Associate Professor\*  
Ph.D., University of California-Berkeley

**Steven C. Hause**, Associate Professor\*  
Ph.D., Washington University

**Winston Hsieh**, Associate Professor\*  
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**Charles P. Korr**, Associate Professor\*  
Ph.D., University of California-Los Angeles

**Howard S. Miller**, Associate Professor\*  
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**Richard W. Resh**, Associate Professor\*  
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**Steven W. Rowan**, Associate Professor\*  
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**John A. Works, Jr.**, Associate Professor\*  
Ph.D., University of Wisconsin

**George P. Rawick**, Lecturer  
Ph.D., University of Wisconsin

**Louise B. Robbert**, Adjunct Associate Professor  
Ph.D., University of Wisconsin

\*members of Graduate faculty

## General Information

The study of history, in addition to providing background for other subjects and disciplines, is an essential part of a liberal education. It encourages students to develop self-knowledge and helps them to understand people of widely disparate backgrounds and periods. The history department offers instruction in a wide variety of fields and formats at all levels, and the program is organized to serve as an introduction to the discipline of history.

Cicero said "to be ignorant of the past is to remain a child," Santayana reminded nations that those who did not know history were doomed to repeat it, and Demosthenes told Athenians that "the time for extracting a lesson from history is ever at hand." Fortunately, the past does not die, we cannot let bygones be bygones. We remember, and we bolster that memory with the written and artifactual record to make it more accurate and lasting. This extension of memory allows us to establish a common pool of wisdom. One of the early acts of the tyrant is to burn the books. Knowledge of what has been said and done is essential to freedom.

**Degrees and Areas of Concentration** The department offers work in Asian, African, European, Latin American, Middle Eastern, and United States history from ancient to modern times. At the bachelor's level, the department offers the B.A. in history, and, in cooperation with the School of Education, the B.A. in history with teacher certification and the B.S. in education with an emphasis in social studies.

At the graduate level, the department offers an M.A. in history with work in Latin American, European, East Asian and United States history. In addition, the department offers an Historical Agencies emphasis area in cooperation with regional historical agencies.

### Departmental Honors

Students majoring in history may be awarded departmental honors upon graduation if they have achieved the following: a) at least a 3.2 overall GPA; b) at least a 3.5 GPA for all hours attempted in history courses; and c) completed an additional senior seminar, a requirement for which shall be the completion of an independent research paper. The paper should be under the direction of one professor and be passed by a committee of three who will be chosen by the student.

## Undergraduate Studies

### General Education Requirements

History majors must meet the University and College general education requirements. History courses that will satisfy the university's social science requirement are:

**History 3**, American Civilization

**History 4**, American Civilization

**History 107**, The History of Missouri

**History 311**, Topics in American Constitutional History

Students may take any language to fulfill the College's foreign language requirement. Majors may not take required history courses on a satisfactory/unsatisfactory basis.

# History

## Degree Requirements

**Bachelor of Arts in History** Students are encouraged to take programs which combine breadth of coverage with intensity. The following courses are required:

**History 3**, American Civilization

**History 4**, American Civilization

**History 31**, Topics in European Civilization: The Emergence of Western Europe to 1715

**History 32**, Topics in European Civilization: 1715 to the Present

**Non-Euro/American survey**: One three-hour course

**History 393**, Senior Seminar

### Also required:

**A minimum 18 hours** of courses numbered 200-399, except 255, distributed as follows:

**1 One** course in **United States history**, pre-1865

**2 One** course in **United States history**, post-1865

**3 One** course in **European history**, pre-1715

**4 One** course in **European history**, post-1715

**5 One** course in **Non-Euro-American history**

**6 One** additional course

No more than 45 hours may be taken in history, and a minimum of 36 hours must be C or better work.

### Minor in History

Students may minor in history by taking **18 hours** of history courses as follows:

**1 One** course numbered 1-199 in **each** of the following areas: United States history, European history, and Non-Euro-American history

**2 One** course numbered 200-399, except 255, in **each** of the following areas: United States history, European history, and Non-Euro-American history

No course in which a grade below a "C" is received shall count toward a minor.

### Related Areas

Since history is a broad discipline, it can be combined with serious work in any other discipline. Courses in the humanities, social sciences, languages, and the natural sciences may complement the history program. Students should consult with faculty advisers to select courses suited to their individual interests.

**Bachelor of Arts with Teacher Certification** See the School of Education description.

### Bachelor of Science in Education: Emphasis in Social Studies

The requirements are the same as for the B.A. degree except students fulfill the School of Education general education requirements rather than those of the College of Arts and Science. For information, refer to the School of Education section.

## Graduate Studies

### Degree Requirements

#### Master of Arts in History

The Department of History offers students three ways of completing the Master of Arts degree: one path of study emphasizes depth of knowledge and research competence acquired through writing a substantial master's thesis; a second emphasizes breadth of historical knowledge acquired through graduate coursework and the writing of research papers; a third emphasizes study and practical experience in historical agencies. All of these ways include a core of substantive courses in history (see "Core" below) to which the student adds either a thesis (see "Thesis"), additional research papers and seminars (see "Research Papers") or courses in historical agencies (see "Historical Agencies"). The M.A. program offers all students intermediate training preparatory to doctoral programs, advanced training leading to teaching and other careers, and disciplined advanced work for students with avocational interests in history.

The department offers study in European history (including Britain and Russia), United States history, East Asian history, Latin American history, and African and Middle Eastern history. Within these general areas of study, students may specialize in the following fields\*:

Europe to 1715

Latin America

Europe since 1715

China and Japan since 1800

United States to 1865

Africa and the Middle East

United States since 1865

**\*Effective Fall 1982:** Students currently enrolled may complete their studies under the guidelines in effect when they began their graduate programs.

### Admission Requirements

Applicants must meet several departmental admission requirements in addition to the general criteria of the Graduate School. The applicant's undergraduate studies need not have been in history, but they must demonstrate high academic potential. Normally, only students with a 3.2 grade point average in their undergraduate major are admitted; most successful applicants have higher grades. Applicants must submit three letters of recommendation, preferably from former teachers, and a sample of their written work. The sample may or may not be academic work, and length is not a consideration. Applicants must take the Graduate Record Examination (GRE) Aptitude Test; the Advanced Test is optional. The departmental Graduate Committee bases its admissions decisions upon the undergraduate transcript, the letters of recommendation, the sample of written work, and the GRE scores.

# History

## Core

All candidates for the M.A. degree in history must complete a core of 26 hours of coursework (excluding Historical Agencies and Thesis credit), with no more than 9 hours of history in courses numbered 200-399, except 255 and 393, and at the 300 level in other disciplines. This core of 26 hours must include one five-credit-hour writing seminar (consisting of a two-credit-hour, research-paper supplement to a three-credit-hour, 400-level history readings course).

Candidates select three fields of study, the first with a minimum of 12 hours, the second and third with a minimum of 6 hours each. Each field must include at least one 400-level course.

In addition to this core, each candidate must select one of the three following degree options:

### 1 Thesis Option—32 hours total

In addition to the Core, the candidate choosing this option must enroll for 6 hours of thesis credit and submit an acceptable thesis. The thesis is based on original research in primary sources. Normally, theses do not exceed 100 pages of text. Candidates receive a grade for the thesis upon its approval by an advisory committee. The committee consists of a major professor, who directs the thesis and two other professors selected by the candidate after consultation with the major professor. One member of the committee must be outside the candidate's general area of study, and one may be outside the history department.

The advisory committee conducts an oral examination on the thesis during the candidate's last semester of residence. The committee decides whether the candidate shall pass, fail, or fail with the option to repeat the oral examination at a later date. Students may not take the oral examination more than twice. The second examination must be held no less than one and no more than two semesters following the date of the first examination. Summer session may be counted as a semester under this procedure, but students should be aware of the difficulties involved in assembling faculty committees during the summer.

Thesis candidates must demonstrate competence in one foreign language or in quantitative methods as applied to historical study. Candidates may demonstrate foreign language competence by satisfactory performance on a GSFLT examination or by other means approved by the department Graduate Committee. Candidates may demonstrate quantitative methods competence by satisfactory performance in History 300, Selected Topics in History: Quantitative Methods in Historical Research, or by other means approved by the Graduate Committee.

### 2 Research Paper Option—36 hours total

In addition to the Core, the candidate choosing this option must complete **two** five-credit-hour seminars (each consisting of a reading seminar plus two credit hours of supplementary work on a substantial research paper). The candidate may choose a fourth field in addition to the three already represented in the Core.

### 3 Historical Agencies Option—39 hours total

In addition to the Core, the candidate choosing this option must complete a program of 13 hours of coursework in Historical Agencies, including:

\***History 405**, Introduction to Historical Agencies

\***History 410**, Studies in Historical Agencies (6 hours)

\***History 415**, Practicum in Historical Agencies (4 hours)

\***Effective Fall 1982**: Students currently enrolled may complete their studies under the guidelines in effect when they began their graduate program.

## Career Outlook

An important rationale for the discipline of history is its centrality to the university curriculum and to the life experience. The ability to put events or developments into the context of the past is useful as well as pleasurable.

Responses to a questionnaire to our graduates have indicated that alumni in a wide variety of fields are as conscious of and appreciative of their training in history as those who have chosen it as a profession. Men and women in business, lawyers, bankers, librarians, and foreign service officers have all found it relevant to their careers. Study and research in history sharpens organizational and writing skills that are important to success in business and the legal profession. A growing interest in local history has created employment opportunities in museum, archival, and preservation work, broadening the historian's traditional options of teaching, civil service, and social service.

Writing history accurately is a public service. To break off a significant fragment of the human past and examine it closely is an act of social importance; historical research contributes to society's store of useful memory. Writing a history essay or monograph carries with it the stirring experience of first-hand knowledge. One who paints, writes poetry, or carves in stone understands the problems of the masters better than any armchair critic. The writer of history gains an astuteness in understanding it. In facing social, political, or moral questions, a keenness for historical truth is valuable mental equipment.

## Mathematical Sciences

### Faculty

**Frederick Wilke**, Chairperson; Associate Professor\*  
Ph.D., University of Missouri-Columbia

**Richard Friedlander**, Associate Chairperson; Associate Professor\*  
Ph.D., University of California-Los Angeles

**Raymond Balbes**, Professor\*  
Ph.D., University of California-Los Angeles

**Deborah Tepper Haimo**, Professor\*  
Ph.D., Harvard University

**Jerrold Siegel**, Professor\*  
Ph.D., Cornell University

**Grant V. Welland**, Professor\*  
Ph.D., Purdue University

**Edward Z. Andalafte**, Associate Professor\*  
Ph.D., University of Missouri-Columbia

**William Connert**, Associate Professor\*  
Ph.D., University of Chicago

**Wayne L. McDaniel**, Associate Professor\*  
Ph.D., St. Louis University

**Stephen Selesnick**, Associate Professor\*  
Ph.D., University of London

**Alan L. Schwartz**, Associate Professor\*  
Ph.D., University of Wisconsin

**Frederick Wilke**, Associate Professor\*  
Ph.D., University of Missouri-Columbia

**Chal Benson**, Assistant Professor  
Ph.D., Yale University

**Ronald Dotzel**, Assistant Professor\*  
Ph.D., Rutgers University

**Gail Ratcliff**, Assistant Professor  
Ph.D., Yale University

**David Welsh**, Assistant Professor  
Ph.D., University of Notre Dame

**Anthony Woods**, Visiting Assistant Professor  
Ph.D., Purdue University

**John Antognoli**, Lecturer; Coordinator of Evening Mathematics  
M.A.

**Dorothy Gotway**, Lecturer  
M.A.

**Mary Jane Kernan**, Lecturer  
M.S.

**Niceta Labrador**, Lecturer  
M.A.

**Carol Page**, Lecturer  
M.S.

**Shahla Peterman**, Lecturer  
M.S.

**Gillian Raw**, Lecturer  
M.A.

**Cynthia Siegel**, Lecturer  
M.S.

\*members of Graduate Faculty

## General Information

### Degrees and Areas of Concentration

The mathematical sciences department offers work leading to the B.A. in mathematics, the B.S. in applied mathematics, the B.S. in computer science, and in cooperation with the School of Education, the B.S. in secondary education with a major in mathematics. The applied mathematics program has two emphasis areas: statistics and classical applied mathematics.

The department also offers minors in computer science, mathematics, and statistics.

The program leading to the B.A. in mathematics is flexible, providing a broad introduction to the important branches of mathematics, but giving students the depth necessary to pursue graduate study successfully. The B.S. in applied mathematics and the B.S. in computer science provide a solid foundation for the student interested in applications of mathematics, including computer-related mathematics. The B.S. in secondary education introduces students to those branches of mathematics most relevant to teaching secondary-school mathematics.

The mathematical sciences department also offers work leading to the M.A. in mathematics. The program is designed to ensure that students will obtain a strong background in the areas of analysis and algebra. Through appropriate choice of electives, students may build upon this background a degree program well suited to preparation for teaching at the high-school, junior-college, or four-year liberal arts college level; a program directed toward application of mathematics in industry or business; or a program designed to serve as a basis upon which students may continue toward a Ph.D. in mathematics.

### Mathematical Sciences Alumni Scholarship

The Mathematical Sciences Alumni Scholarship is a monetary award for an outstanding junior or senior, majoring in mathematical sciences, as evidenced by a grade point average of 3.5 or higher in at least 24 graded hours of course work at UMSL, and superior achievement in courses in mathematical sciences. Application forms may be obtained from the Department of Mathematical Sciences. The deadline for applications is April 15.

## Undergraduate Studies

### General Education Requirements

All majors must satisfy the University and appropriate School or College general education requirements. All mathematics courses except Mathematics 02 and 03 may be used to meet the University's General Education breadth of study requirement in science and mathematics.

### Satisfactory/Unsatisfactory Restrictions

Majors in mathematical sciences may **not** take mathematical sciences or related area courses on a satisfactory/unsatisfactory basis. Students considering graduate study should consult with their advisers about taking work on a satisfactory/unsatisfactory basis.

### Degree Requirements

All mathematical sciences courses presented to meet the degree requirements must be completed with a grade of C or better. At least four courses numbered 250 or above must be taken in residence. Students must have a 2.0 grade point average in the mathematical sciences courses completed.



## Mathematical Sciences

All introductory courses in mathematics, other than Mathematics 02a, require as a prerequisite a satisfactory score on the Mathematics Placement Test. The dates on which this test is administered are given in the *Schedule of Courses*. Placement into the introductory courses (other than Math 02) assumes a mastery of approximately one and one-half years of high-school algebra.

A minimum grade of C shall be required to meet the prerequisite requirement for any course except with permission of the department.

**Bachelor of Arts in Mathematics and Bachelor of Science in Education majoring in Secondary Education with Emphasis in Mathematics** Candidates for either the B.A. degree or the B.S. in education are required to complete the following course work:

**1 All of the following mathematics courses:** (B.S. in secondary education majors must also complete Computer Science 122, Computers and Programming.)

- 80, Analytic Geometry and Calculus I
- 175, Analytic Geometry and Calculus II
- 201, Analytic Geometry and Calculus III
- 202, Linear Algebra and Differential Equations
- 250, Introduction to Modern Mathematics
- 345, Linear Algebra

**2 Four courses from three of the following blocks** with at least one course from the first block and at least two courses in some block.

### Analysis and Topology

- 310, Advanced Calculus I
- 311, Advanced Calculus II
- 316, Functions of a Complex Variable
- 380, Introduction to Topology

### Algebra

- 335, Theory of Numbers
- 340, Introduction to Abstract Algebra I
- 341, Introduction to Abstract Algebra II

### Applications

- 303, Applied Mathematics II
- 306, Applied Differential Equations
- 320, Mathematical Statistics I
- 321, Mathematical Statistics II
- 323, Numerical Analysis I
- 324, Numerical Analysis II
- 327, The Calculus of Variations
- 355, Discrete Mathematics

### Geometry and Logic

- (B.S. in secondary education majors must complete 366 or 367.)
- 358, Mathematical Logic
  - 362, Projective Geometry
  - 364, Introduction to Differential Geometry
  - 366, Foundations of Geometry
  - 367, Introduction to Non-Euclidean Geometry

**Bachelor of Science in Applied Mathematics** The following course work is required:

### 1 Mathematics

- 80, Analytic Geometry and Calculus I
- 175, Analytic Geometry and Calculus II
- 201, Analytic Geometry and Calculus III
- 202, Linear Algebra and Differential Equations
- 250, Introduction to Modern Mathematics
- 310, Advanced Calculus I or 340, Introduction to Abstract Algebra I

### 2 Computer Science

- 122, Computers and Programming

### 3 Probability and Statistics

- 132, Applied Statistics I

**4 All the courses in either option a or b:**

#### a) Classical Applied Mathematics Option

The following courses in **mathematics** are required:

- 303, Applied Mathematics II
- 316, Functions of a Complex Variable
- 320, Mathematical Statistics I
- 323, Numerical Analysis I
- 345, Linear Algebra

Also required are **two** additional courses in mathematical sciences, numbered above 250, as well as Physics 111, Physics: Mechanics and Heat, and Physics 112, Physics: Electricity, Magnetism and Optics.

**b) Probability and Statistics Option** The following courses in **probability and statistics** are required:

- 232, Applied Statistics II
- 320, Mathematical Statistics I
- 321, Mathematical Statistics II
- 330, Multivariate Analysis
- 333, Nonparametric Methods in Statistics

Also required is the following **computer science** course:  
222, Programming Techniques

One further course in mathematical sciences, numbered above 250, and two related area courses should be chosen with the approval of the adviser.

**Bachelor of Science in Computer Science** The following course work is required:

### 1 Mathematics

- 80, Analytic Geometry and Calculus I
- 175, Analytic Geometry and Calculus II
- 201, Analytic Geometry and Calculus III
- 202, Linear Algebra and Differential Equations
- 250, Introduction to Modern Mathematics

Also required is **one** of the following:

- 320, Mathematical Statistics I
- 323, Numerical Analysis I
- 355, Discrete Mathematics

# Mathematical Sciences

## 2 Computer Science

**122**, Computers and Programming  
**222**, Programming Techniques  
**229**, Introduction to Computer Hardware  
**265**, Small Computer Systems  
**322**, Data Structures  
**328**, Programming Languages and Compilers  
**376**, Operating Systems

## 3 Probability and Statistics

**132**, Applied Statistics I

**4 Three further courses in mathematical sciences**, numbered above 250, at least one of which must be in computer science. Computer Science 272, Programming Languages Laboratory, may be counted as one of these three courses only if three or more hours of credit are obtained in the course.

### Related Area Requirements

In order to broaden student understanding of the sources and uses of mathematics, the department requires all candidates for the B.A. in mathematics, B.S. in education, B.S. in applied mathematics, and B.S. in computer science to complete **all courses in any two** of the groups below.

**Restrictions** Students are reminded that related area requirements may not be taken on a satisfactory/unsatisfactory basis. Students in either the computer science degree program or the statistics emphasis area may not choose group 5; students in the classical applied math emphasis area may not choose group 8. Candidates for the B.S. in applied mathematics and the B.S. in computer science who choose group 9 must satisfy group 9 requirements with Physics 221, Mechanics, and Physics 223, Electricity and Magnetism.

### Related Area Courses

#### 1 Biology:

**Biology 224**, Genetics  
**Biology 226**, Genetics Laboratory

#### 2 Biology:

**Biology 342**, Population Biology  
**Biology 344**, Population Biology Laboratory

and one additional course at the 200 level, or above, excluding Biology 224 and 226. The department recommends Biology 348, Animal Societies and Aggregations, or Biology 380, Advanced Animal Behavior.

#### 3 Chemistry:

**Chemistry 11**, Introductory Chemistry I  
**Chemistry 12**, Introductory Chemistry II

#### 4 Chemistry:

**Chemistry 231**, Physical Chemistry I

and another 200-level, or above, chemistry course.

## 5 Two of the following computer science courses:

**Computer Science 222**, Programming Techniques  
**Computer Science 322**, Data Structures  
**Business Administration 224**, Introduction to Systems Programming

## 6 Two of the following economics courses:

**Economics 345**, Population Economics  
**Economics 351**, Mathematical Economics  
**Economics 365**, Economic Statistics and Econometrics  
**Economics 366**, Econometrics

## 7 Philosophy:

**Philosophy 160**, Formal Logic  
**Philosophy 260**, Advanced Formal Logic  
**Philosophy 280**, Philosophy of Science

## 8 Physics:

**Physics 111**, Physics: Mechanics and Heat  
**Physics 112**, Physics: Electricity, Magnetism, and Optics

## 9 Physics:

**Physics 221**, Mechanics

and another 200-level, or above, physics course.

## 10 Psychology:

**Psychology 301**, Advanced Statistics and Experimental Design (for B.S. Ed. candidates with secondary education majors only)

## 11 Business Administration

**375**, Operations Research  
**Business Administration 385**, Operations Research II or **487**, Advanced Operations Research Applications, or **483**, Production and Operations Management

Many students are qualified, as a result of having studied calculus in high school, to begin their major with Mathematics 175, Analytic Geometry and Calculus II, or Mathematics 201, Analytic Geometry and Calculus III. These students are urged to consult with a faculty member before planning their programs. Credit for Mathematics 80, Analytic Geometry and Calculus I, will be granted to students who complete Mathematics 175 with a grade of C or better.

Students preparing for graduate study should take eight or nine mathematics courses at the junior-senior level. The department recommends the following **mathematics** courses:

**310**, Advanced Calculus I  
**311**, Advanced Calculus II  
**316**, Functions of a Complex Variable  
**340**, Introduction to Abstract Algebra I  
**341**, Introduction to Abstract Algebra II  
**380**, Introduction to Topology

# Mathematical Sciences

## Minor Requirements

The department offers minors in computer science, mathematics, and statistics. All courses presented for any of these minors must be completed with a grade of C or better.

**Minor in Computer Science** The requirements for the minor are:

- 122, Computers and Programming
- 222, Programming Techniques

and **two** additional **computer science** courses numbered above 222.

**Minor in Mathematics** The requirements for the minor are:

- 80, Analytic Geometry and Calculus I
- 175, Analytic Geometry and Calculus II
- 201, Analytic Geometry and Calculus III

and **one** additional **mathematics** course numbered above 201.

**Minor in Statistics** The requirements for the minor are:

- 132, Applied Statistics I
- 232, Applied Statistics II

and **two** additional **probability and statistics** courses numbered above 232.

## Graduate Studies

### Preliminary Advisement

Incoming students are assigned advisers with whom they should consult before each registration period. First-year students will meet with their advisers to determine proper placement. If necessary, students may have to repeat undergraduate course work for no credit.

### Degree Requirements

**Master of Arts in Mathematics** Candidates for the M.A. degree must complete 30 hours of work including:

a) The following **mathematics** courses:

- 310, Advanced Calculus I
- 340, Introduction to Abstract Algebra I
- 345, Linear Algebra

b) Fifteen hours of mathematical sciences courses numbered above 400, chosen with prior approval of the graduate director.

**Note:** Requirement (a) can be waived, but no credit obtained, if the student passes an appropriate examination.

**Thesis Option** The student may elect to work on a thesis in which case he or she must enroll in at most six hours of Mathematics 490, Master's Thesis.

Up to six hours in courses outside of mathematical sciences, numbered 200 or above, may be taken with prior approval of the graduate director.

**Examination** Candidates for the degree must take an examination which will be oral or written or both at the option of the department. Candidates failing the examination may repeat it after six months. Candidates are not allowed to take the examination more than twice. Students electing to write a thesis will, as part of their examination, present and defend that thesis. The thesis option will be available in various areas but primarily in computing.

**Financial Assistance** Financial support is available to full-time graduate students in the form of teaching assistantships. For further information, contact the graduate director.

## Career Outlook

Graduates from the Department of Mathematical Sciences have little difficulty in finding positions in industry, government, and education. The demand for individuals well trained in statistics, in computer science, and in applied mathematics is greater than the available supply. During the past academic year, the department received more than twice as many requests for secondary-school teachers in mathematics as it graduated. A number of graduates in mathematics have elected careers in business and other related fields where they have found their logical and analytical skills to be well rewarded.

## Modern Foreign Languages and Literatures

### Faculty

**Albert J. Camigliano**, Chairperson, Assistant Professor, German  
Ph.D., University of Wisconsin

**Francisco Carenas**, Professor,\* Spanish  
Ph.D., University of Valencia

**Roland A. Champagne**, Professor,\* French; Associate Dean,  
College of Arts & Sciences  
Ph.D., The Ohio State University

**Marcus Allen**, Associate Professor,\* French  
Ph.D., University of Pittsburgh

**Alfred F. Goessl**, Associate Professor Emeritus,\* German  
Ph.D., Tulane University

**Sonja G. Stary**, Associate Professor,\* French Ph.D.,  
University of Cincinnati

**Ingeborg M. Goessl**, Assistant Professor,\* German  
Ph.D., University of Kansas

**Paul R. Hoffman**, Assistant Professor, German  
M.A.

**Rolf R. Mueller**, Assistant Professor, German; Director, Language  
Laboratory  
Ph.D., University of Kansas

**Lorna Williams**, Assistant Professor, Spanish  
Ph.D., University of Indiana

**Jeanne M. Zarucchi**, Assistant Professor, French  
Ph.D., Harvard University

**Deborah Baldini**, Lecturer, Spanish  
M.A.

**Rita Bergoudian**, Lecturer, Spanish and French  
M.A.

**Pierrette Daly**, Lecturer, French  
Ph.D., Washington University

**John W. Franzmann**, Lecturer, Latin, Ancient Greek,  
Ph.D. University of Wisconsin

**Geremie Hoff**, Lecturer, Italian  
B.A.

**Frederic Makler**, Lecturer, Spanish  
M.A.

**Roger Noel**, Lecturer, French  
Ph.D., Washington University

**Muriel S. Pascoe**, Lecturer, Spanish  
Ph.D., Washington University

**Alicia Ramos**, Lecturer, Spanish  
Ph.D., Northwestern University

**Susana Walter**, Lecturer, Spanish  
M.A.

**Rita C. White**, Lecturer, French  
M.A.

\*members of Graduate Faculty

The department is proud of the quality of its faculty, foreign language instruction, and the performance of its graduates. To achieve and maintain this quality, the department has a faculty whose members have either native or near-native ability in the foreign languages taught. Each year the department arranges to provide the services of native-speaking assistants to enrich the students' language experience on an informal basis.

## General Information

**Degrees and Areas of Concentration** The Department of Modern Foreign Languages and Literatures offers course work in French, German and Spanish, leading to the B.A. degree and a field of concentration in each of these languages for those students seeking the B.S. degree in education. In addition, the department offers lower-level courses in Italian, Latin, Ancient Greek, and Russian. A minor in French, German, or Spanish may also be earned in the department. For details, see "Specific Requirements for the Minor" on the next page.

Each of the languages offering a major has an active foreign language club which enables students to meet with each other and their instructors to practice the language in a casual setting. A resource center is maintained where books, journals, magazines, records, and other foreign language realia are available to students. The language laboratory is a cassette-oriented center housing a cassette library with holdings in the seven languages taught by the department.

**Cooperative Study** Courses in Chinese, Hebrew, and Japanese are available to UMSL students through Washington University. Portuguese is available through St. Louis University. For information, consult the UMSL registrar's office.

**Study Abroad** Language students who have been at UMSL as least one semester and have studied the language at least one year, may receive 3-6 credits for formal study abroad during the summer. Prior consent of the department must be obtained for summer courses abroad, and the student must present a transcript for evaluation.

**Departmental Honors** Candidates for departmental honors in French, German, or Spanish must meet the following requirements:

- 1 achieve a GPA of 3.5 in the major for all hours attempted beyond the first two semesters (I and II)
- 2 maintain an overall GPA of 3.2
- 3 successfully complete an honors thesis and project.

## Undergraduate Studies

### General Education Requirements

Each language major must satisfy the general education requirements of the University and the general education requirements of the College of Arts and Sciences. Any literature or civilization course offered by the department may be used to meet the humanities requirement.

### Satisfactory/Unsatisfactory Option

Any course offered by the department may be taken on a satisfactory/unsatisfactory basis by non-majors except Language 1, 2, and 101 (or equivalent), Elementary and Intermediate French, German, Ancient Greek, Italian, Latin, Russian or Spanish; and Language 115a, b, and c, Intensive



## Modern Foreign Languages and Literatures

Language. Courses taken as a part of the major may not be taken on a satisfactory/unsatisfactory basis.

Students who have fulfilled the language requirement (thirteen hours of 1; 2, and 101) may enroll in a second language on a satisfactory/unsatisfactory basis.

### Specific Requirements or Restrictions

Students entering with no high-school language units must enroll in Language I or may enroll in Language 115. Language 115 (a, b, and c) is the intensive study of a language and will satisfy the foreign language requirement.

Starting in Fall Semester, 1984, a D in a Language 1 course is a passing grade but not an entrance grade for a Language 2 course. Starting in Winter Semester, 1985, a D in a Language 2 course is a passing grade but not an entrance grade for a Language 101 course or its equivalent.

Students may not repeat for either credit or quality points an elementary course if they have already completed a higher level course for which the elementary course or its equivalent is a prerequisite.

### Scientific Language 100

Scientific Language 100 or Commercial Language 105 is the equivalent of Language 101 and may be substituted for Language 101.

### Degree Requirements

Students electing to major in the department must have completed Course Number 2 in the language selected with a grade of C or better. Any major who receives a grade of D in any course required for the major must repeat that course. A student may not take a course in his/her major on a satisfactory/unsatisfactory basis.

**Bachelor of Arts** All students seeking the B.A. in a foreign language must meet the departmental requirement of a minimum of 33 hours (excluding Language 1 and 2). The maximum number of hours that may be taken in the major is 45 (including Language 1 and 2). In addition, students seeking the B.A. in a foreign language who desire a teaching certificate must also take Course 264 (same as SEC ED 274), Curriculum and Methods of Teaching Foreign Languages, and fulfill the professional secondary education requirements of the School of Education.

**Bachelor of Science in Education** Those students seeking the B.S. degree in education, with a concentration in a foreign language, are required to complete 30 hours of work (excluding credit for Language 1 and 2), of which 12 hours must be on the 300 level. Students working toward a degree in elementary education, with related work in a foreign language, should consult the School of Education concerning their program.

Demonstration of a high level of proficiency may reduce the number of hours required for the major. Native speakers of a

foreign language should consult with the department concerning appropriate placement.

**Note** Courses that are prerequisites for higher-level courses may not be taken for credit or quality points if the higher level course has been successfully completed.

Students who have not yet received college-level credit in French, German, and Spanish may receive up to 13 hours advanced standing in that language provided that they take the Department Placement Exam to be placed in an upper-level language course and complete that course with a grade of C or better. In Italian and Russian 10 hours advanced standing may be earned.

**Transfer Students** Transfer students majoring in one of the modern foreign languages must complete, at UMSL, a minimum of 12 graded hours in language courses at the 200 level or above with a grade point average of 2.0 or better in these courses.

### Specific Requirements for the Major

**French** Each major in French must complete the following courses:

- 101**, Intermediate French, or **105**, Commercial French, or the equivalent
- 171**, French Conversation and Pronunciation, or **172**, French Composition
- 180**, Readings in French
- 200**, Advanced Grammar
- 280**, French Literature I: Middle Ages to Eighteenth Century
- 281**, French Literature II: Nineteenth and Twentieth Centuries

and **four** courses at the 300 level.

The following courses are also strongly **recommended**:

- German 110**, Masterpieces of German Literature in Translation
- Spanish 110**, Spanish Literature in Translation
- History 332c**, Modern France: To 1870
- History 333a**, Contemporary France: Since 1870

**German** Each major in German must complete the following courses:

- 101**, Intermediate German
- 171**, German Conversation and Pronunciation, or **172**, German Composition
- 180**, Readings in German
- 201**, Masterpieces of German Literature
- 202**, The German Novelle and Drama
- 208**, Intermediate Composition and Conversation
- 210**, German Culture and Civilization

and **four** courses at the 300 level

## Modern Foreign Languages and Literatures

Also **recommended** are these courses:

**English 120**, Classical Literature in Translation  
**English 337**, Shakespeare: Tragedies and Romances  
**French 110**, Modern French Literature in Translation, or **150**,  
European Literature in Translation: Special Topics  
**Spanish 110**, Spanish Literature in Translation, or **150**, European  
Literature in Translation: Special Topics  
**History 333b**, Germany in the Modern Age  
**Philosophy 105**, Twentieth-Century Philosophy

**Spanish** Each major in Spanish must complete the following courses:

**101**, Intermediate Spanish, or **105**, Commercial Spanish, or the equivalent  
**171**, Spanish Conversation and Pronunciation, or **172**, Spanish Composition  
**200**, Syntax of the Spanish Language  
**210**, Hispanic Culture and Civilization: Spain, or **211**, Hispanic Culture and Civilization: Spanish America  
**280**, Introduction to Hispanic Literature: Spain  
**281**, Introduction to Hispanic Literature: Spanish America

and **four** courses at the 300 level, one of which must be: **399**, Seminar on Hispanic Literature

Strongly **recommended** are:

**French 110**, Modern French Literature in Translation, or **150**,  
European Literature in Translation: Special Topics  
**German 110**, Masterpieces of German Literature in Translation  
**History 332a**, History of Spain  
**History 271**, History of Latin America: to 1808  
**History 272**, History of Latin America: Since 1808  
**Political Science 253**, Political Systems of South America  
**Political Science 254**, Political Systems of Mexico, Central America,  
and the Caribbean

### Specific Requirements for the Minor

A minor in French, German or Spanish may be earned by completing six courses in the language beginning with 101 or its equivalent. These courses must be completed with a grade of C or better. After 101, students must complete the following courses in the language of their chosen minor:

#### French

Either 160, 171, or 172;  
180;  
Either 280 or 281;  
Any two additional courses on the 200 level or above.

#### German

Either 171 or 172;  
180;  
Either 201 or 202;  
Any two additional courses on the 200 level or above.

#### Spanish

Either 171 or 172;  
Either 200 or 271;  
Either 280 or 281;  
Any two additional courses on the 200 level or above.

#### Native Speakers

For all languages, native speakers must complete five courses on the 200 level or above.

## Career Outlook

Graduates with a foreign language degree may elect to enter the fields of teaching, business, journalism, communications, government, or to pursue advanced degrees in their specialty. It is especially recommended that students consider a double major of another discipline and a language. A language then becomes an asset to make the graduate more adaptable to the demands of international communication in that other major discipline and hence more competitive and marketable upon completion of the B.A. degree.

# Music

## Faculty

**Leonard Ott**, Chairperson; Assistant Professor\*  
Ph.D., Michigan State University

**Kenneth E. Miller**, Professor\*  
Ph.D., Northwestern University

**Warren T. Bellis**, Associate Professor\*  
D.M.A., University of Michigan

**Evelyn Mitchell**, Associate Professor\*  
**Arnold Perris**, Associate Professor\*  
Ph.D., Northwestern University

**Fred Willman**, Associate Professor\*  
Ph.D., University of North Dakota

**Terry Austin**, Assistant Professor  
Ph.D., University of Wisconsin-Madison

**Jeral Becker**, Assistant Professor  
Ph.D., Washington University

**John Hylton**, Assistant Professor  
D.Ed., Penn State University

**Rex Matzke**, Assistant Professor  
M.M., University of Nebraska

**James Richards**, Assistant Professor  
M.M., University of Texas at Austin

**Diane Toulaitos-Banker**, Assistant Professor  
Ph.D., Ohio State University

**Bruce Vantine**, Assistant Professor  
D.M.A., University of Illinois at Urbana-Champaign

**Jane Allen**, Lecturer (Piano)

**Robert Ceccarini**, Lecturer (Trumpet)  
B.M.E.

**Carolee Coombs-Stacy**, Lecturer (Voice)

**Hubert Drury**, Lecturer (Piano)  
M.M.

**Jan Gippo**, Lecturer (Flute)†  
M.M.

**Marc Gordon**, Lecturer (Oboe)†

**Silvian Iticovici**, Lecturer (Violin)†

**Joseph Kline**, Lecturer (Piano)  
M.M.

**Robert Mottl**, Lecturer (Bassoon)†  
M.M.

**Richard O'Donnell**, Lecturer (Percussion)†

**Jan Parker**, Lecturer (Voice)  
M.M.

**Gene Pokorny**, Lecturer (Tuba)†  
B.M.

**Michael Quint**, Lecturer (French Horn)  
M.M.

**Dayne Chandler Renz**, Lecturer (Voice)  
M.M.

**Alan Rosenkoetter**, Lecturer (Guitar)  
B.S.

**Evelyn Rubenstein**, Lecturer (Piano)

**Bernard Schneider**, Lecturer (Trombone)†

**Gary Smith**, Lecturer (Trumpet)†  
M.M.

**Janis Smith**, Lecturer (Flute)†  
B.M.E.

**Sue Stubbs**, Lecturer (String Bass)  
B.M.

**Thomas Stubbs**, Lecturer (Percussion)†  
B.S.

**Su Suits**, Lecturer (Piano)

**Robert Tobler**, Lecturer (Trombone)  
M.M.

**John P. Walsh**, Lecturer (Organ)  
M.M.

**Carolyn White**, Lecturer (Double Bass)†  
B.M.

**Lazar Gosman**, Artist-in-Residence and Conductor of Kammergild Chamber Orchestra

\*members of Graduate Faculty  
†member, Saint Louis Symphony Orchestra

Music faculty members have received recognition for distinguished achievements in conducting, composition, and performance. The faculty is also recognized for research in musicology and music education. Part-time applied music lecturers are all professional musicians.

## General Information

### Degrees and Areas of Concentration

The Department of Music offers programs of study leading to the B.M. degree in music education (and state teaching certification in grades K-12); the B.M. degree with an emphasis in performance; the B.M. degree with an emphasis in music management; and the B.A. degree in music or in music history and literature.

Instruction in piano, organ, voice, and all band and orchestral instruments is given by full-time faculty and 25 part-time professional musicians, many of whom are members of the Saint Louis Symphony Orchestra. Faculty recitals are regularly scheduled.

**Music Minors** Three minors in music are available: a minor in music; a minor in music education (Choral/Vocal, Grades K-9); and a minor in Jazz studies.

**Facilities** All of the department's facilities, classrooms, rehearsal rooms, studios, practice rooms, and listening labs are located in the Music Building.

**Ensembles** Twelve performing ensembles are open to all by audition with credit optional:

- 40, University Chorus
- 41, The University Singers
- 50, University Orchestra
- 52, University Band
- 53, University Wind Ensemble
- 54, Chamber Ensemble: a, brass; b, jazz combo; c, percussion; d, strings; e, voice; f, woodwinds.
- 55, Jazz Ensemble
- 56, Opera Workshop

Each year about 40 recitals and concerts are presented.

# Music

## Undergraduate Studies

### General Education Requirements

General education requirements apply to all majors, except students in the B.M. and B.M. in music education degree programs who are not required to take a foreign language. Courses required for degree programs may not be taken on a satisfactory/unsatisfactory basis.

Students may complete any number of hours of applied music (private lessons) toward a degree. Non-music majors may complete no more than eight hours in music-performing organizations (Music 40, University Chorus; 41, University Singers; 50, University Orchestra; 52, University Band, et. seq.) toward graduation, including credit transferred. Courses in applied music (private lessons and performing organizations) do not fulfill the humanities general education requirement. Department courses which meet the non-Euro-American study requirement are Music 9, Non-Western Music, and Music 10, Non-Western Music.

### Degree Requirements

Admission to all music degree programs is by audition and interview to demonstrate musical aptitude and potential, moderate technical proficiency, and seriousness in selecting music as a four-year course of study. Auditions are scheduled from January to May for the fall semester; a limited number are held in December for the winter semester. **APPLICANTS MUST BE ADMITTED TO THE UNIVERSITY BEFORE REQUESTING AN AUDITION.**

Evidence of sound musicianship, a close acquaintance with an appropriate portion of musical literature, and the ability to bring it to actual performance is required for graduation in all music degree programs. Students in the Bachelor of Music-Performance Emphasis fulfill this requirement with junior and senior recitals. Those in all other degree programs must satisfy the requirement by participating in three regularly scheduled student recitals during the last two semesters of applied music study, or by performing for a special jury of faculty members. The faculty may invite students who are not in the Bachelor of Music-Performance Emphasis program to give public senior recitals with the recommendation of the applied music instructor.

Music majors are required to participate in an approved ensemble (Band, Singers, Chorus, or Orchestra) and to study one applied area progressively each semester of the degree program. Standards of achievement in applied music are on file in the department office.

Majors are required to appear in performance at the department's discretion and to attend a prescribed number of departmental recitals. Non-keyboard players are required to pass an exam in piano proficiency: Music 118, Intermediate Piano Proficiency, or equivalent for instrumentalists, or Music 120, Intermediate Piano Proficiency, or equivalent for vocalists.

### Core Curriculum

The following core courses are **required** for all music majors:

#### Music Theory

- 30, Theory of Music I
- 31, Theory of Music II
- 130, Theory of Music III
- 131, Theory of Music IV
- 141, Orchestration

#### Music History and Literature

- 101, History of Western Music I
- 102, History of Western Music II

and at least **one** 300-level course.

In addition to the core curriculum, students must fulfill the requirements for the specific degree program or emphasis area as listed below:

**Bachelor of Arts in Music** In addition to the required Core Curriculum, candidates must complete the following:

- 151, Conducting I
- 192, Senior Research

**Applied Area** 12 credit hours of private lessons

**Ensemble** Four hours maximum credit

**Bachelor of Arts in Music History and Literature** In addition to the required Core Curriculum, candidates must complete the following:

- 151, Conducting I
- 192, Senior Research

**Music History and Literature** Two additional 300-level courses

**Applied Area** 8 credit hours of private lessons

**Ensemble** Four hours maximum credit

**Bachelor of Music in Music Education** In addition to the required Core Curriculum, candidates must complete the following:

**Applied Area** 10 credit hours of private lessons

#### Practicum

- 151, Conducting I
- 152, Conducting II
- 161, Junior-Senior High School Materials Laboratory
- 162, Elementary School Materials—Conducting Laboratory

#### Instrumental Certification

- 17, Beginning Instrumental Techniques, 8-13 credit hours

#### Vocal Certification

- 125, Singer's Diction: French and Italian
- 126, Singer's Diction: English and German

For students whose applied area is **not** Voice, the following courses are also required:

- 123, Intermediate Vocal Techniques
- 124, Intermediate Vocal Techniques

**Ensemble** Four hours maximum credit

**Curriculum and Methods of Teaching** The following courses are required:

- 257, Curriculum and Methods of Teaching Elementary School Music
- 267, Philosophic and Practical Foundations of the Secondary Music Education Curriculum



# Music

**Professional Education and Student Teaching** The following education courses are required:

- ED FND 111**, The School in Contemporary Society
- ED PSY 312**, The Psychology of Teaching and Learning
- ELE ED 210**, Elementary School Organization, Management, and Techniques of Teaching
- SEC ED 213**, Techniques of Secondary School Teaching
- SEC ED 293**, Student Teaching in Music Education, K-6
- SEC ED 294**, Student Teaching in Music Education, 7-12
- SPC ED 313**, The Psychology and Education of Exceptional Individuals

## Bachelor of Music with an Emphasis in Performance

In addition to the required Core Curriculum, candidates must complete the following:

- 311**, Analysis of Twentieth-Century Techniques
- 312**, Tonal Counterpoint
- 151**, Conducting I
- 152**, Conducting II
- 192**, Senior Research

**Music History and Literature** An additional 300-level course is required.

**Applied Area** 24 credit hours of private lessons (junior and senior recitals required).

**Ensemble** Participation required as follows:

**Large Group** Four hours maximum credit

**Chamber Ensemble/Accompanying** Four hours

## Bachelor of Music with an Emphasis in Music Management

In addition to the required Core Curriculum, candidates must complete the following:

**Applied Area** 8-12 hours of private lessons (completion of 12 credit hours requires a senior recital)

### Practicum

- 151**, Conducting I
- 161**, Junior-Senior High School Materials Laboratory

**Ensemble** Four hours maximum credit

### Internship

**292**, Internship (replaces 192 in Core Curriculum)

**English** One of the following English courses is required:

- 160**, Advanced Expository Writing
- 161**, Technical Writing
- 162**, Business Writing

**Business Administration** The following courses in business administration are required:

- 140**, Fundamentals of Financial Accounting
- 145**, Managerial Accounting
- 206**, Basic Marketing
- 210**, Management as a Behavioral Science I

Two courses selected from the following list must also be taken:

- 103**, Introduction to Business Data Processing
- 156**, Legal Environment of Business
- 204**, Financial Management
- 256**, Business Law
- 270**, Management of Promotion
- 301**, Buyer Behavior
- 309**, Personnel Management
- 311**, Management as a Behavioral Science II
- 312**, Industrial and Labor Relations
- 347**, Income Taxes

**Note:** The following courses fulfill general education requirements and are prerequisites to the required business administration courses: **Psychology 3**, General Psychology, or **Sociology 10**, Introduction to Sociology

**Economics 51**, Principles of Microeconomics

B.M.-Music Management students may utilize Mathematics 31, Elementary Statistical Methods, or Business Administration 131, Elementary Statistics, to fulfill the statistics prerequisite for courses in business administration. A maximum of 30 hours in business courses may be taken in this program.

## Curricula for Minors

**Minor in Music** Candidates must complete the following courses (24 hrs.):

### Music Theory

- 30**, Theory of Music I
- 31**, Theory of Music II

### Music History and Literature

- 101**, History of Western Music I
- 102**, History of Western Music II

**Applied Area** Four credit hours of private lessons

**Ensemble** Two credit hours (four hours maximum credit)

Six additional credit hours to be chosen from such courses as the following:

- 130**, Theory of Music III
- 131**, Theory of Music IV
- 141**, Orchestration
- 116**, Intermediate Piano Proficiency (Prerequisite: Music 15)
- 118**, Intermediate Piano Proficiency
- Any 300-level History and Literature course**
- Applied Music courses in sequence**
- Any Ensemble course**

Music education methods courses, and beginning instrumental techniques courses may not be taken to complete this minor.

Non-keyboard players are required to pass an exam of piano proficiency (Music 15 or equivalent).

A GPA of 2.5 for all music hours is required to complete this minor.

## Minor in Music Education (Choral/Vocal, Grades K-9)

The minor in music education is designed to provide a second classification area for students enrolled in other education programs that lead to initial teaching certification.

Candidates must complete the following courses (41 hrs.):

- 30**, Theory I
- 31**, Theory II
- 101**, History of Western Music I
- 102**, History of Western Music II
- \*257**, Curriculum and Methods of Teaching Elementary School Music
- \*267**, Philosophic and Practical Foundations of the Secondary Music Education Curriculum
- \*269**, Curriculum and Methods of Teaching Middle School/Junior-High School General Music
- 151**, Conducting I
- 161**, Junior-Senior High School Materials Laboratory
- 162**, Elementary School Materials—Conducting Laboratory

# Music

**40/41**, Chorus or University Singers

**14/15**, Piano Proficiency

**116/118**, Intermediate Piano Proficiency

**Applied Music**, Voice (at least two hours must be private rather than class voice)

\*Elementary education majors will omit Music 177 from their regular elementary program to take these courses.

Also required, as applicable, is **SEC ED 393**, Student Teaching.

The student must receive at least a C in each music course and maintain a 2.5 GPA in all music courses (Chorus/Singers is not included in the GPA).

**Minor in Jazz Studies** Candidates must complete **29 credit hrs.** from the following:

**Music Theory**

**30**, Theory of Music I

**31**, Theory of Music II

**32**, Theory of Jazz

**Music History and Literature**

**7**, Introduction to Jazz

**102**, History of Western Music II

**Applied Area** Four credit hours of private lessons

**Jazz Improvisation**

**20**, Jazz Improvisation Laboratory (two credit hours/Music 20 repeated)

**Piano Proficiency**

**14/15**, Piano Proficiency

**116**, Intermediate Piano Proficiency

**117**, Jazz Keyboard Harmony

**Ensemble** Two credit hours minimum, to be selected from:

**54b**, Jazz Combo

**54e**, Voice

**55**, Jazz Ensemble

## Career Outlook

A music degree is the basis for a career in professional performance, in music education as a school or private studio teacher, or as a church music director. Opportunities also exist in the music industry in recording, publishing, radio programming, manufacturing, and retail business. A trained artistic mind also can be an advantage in the fields of advertising, public relations, and consumer services.

A number of UMSL music graduates have been readily accepted into leading graduate schools. Many are pursuing successful careers in music education or in business and industry.

# Philosophy

## Faculty

**Ronald Munson**, Chairperson; Professor\*  
Ph.D., Columbia University

**James F. Doyle**, Professor\*  
Ph.D., Yale University

**Peter Fuss**, Professor\*  
Ph.D., Harvard University

**David A. Conway**, Associate Professor\*  
Ph.D., Princeton University

**Edward B. Costello**, Associate Professor\*  
Ph.D., Northwestern University

**Lawrence H. Davis**, Associate Professor\*  
Ph.D., University of Michigan

**Robert M. Gordon**, Associate Professor\*  
Ph.D., Columbia University

**John E. Parks-Clifford**, Associate Professor\*  
Ph.D., University of California-Los Angeles

**Stephanie A. Ross**, Associate Professor\*  
Ph.D., Harvard University

**Paul A. Roth**, Assistant Professor  
Ph.D., University of Chicago

**Henry L. Shapiro**, Assistant Professor\*  
Ph.D., Columbia University

**David J. Griesedieck**, Lecturer  
M.A., Princeton University

\*members of Graduate Faculty

Philosophy continues to keep alive the tradition begun by Socrates, Plato and Aristotle of critically examining one's most cherished assumptions. Moreover, it deals with problems that are common to several areas of inquiry, such as art, ethics, the social sciences, and the natural sciences. The study of philosophy also encourages logical precision, a heightened awareness of assumptions used in any discussion, and an attitude of both open-mindedness and responsible criticism toward new and unusual ideas. These skills are particularly useful for students planning careers in law, business, or other fields requiring such disciplines of mind. For these reasons many students have found it useful to combine a major in another field with a major in philosophy. To accommodate such students, the department has a special program for double majors.

The philosophy faculty has an unusually wide range of research interests. Faculty members have written books and articles addressing not only the classical and traditional concerns of philosophy, but contemporary controversies in the fields of law, psychology, sociology, political theory, biology, medical ethics, theology, logic and philosophy of history as well. For their research in some of these areas, members have been awarded a number of national research grants, including fellowships from the American Council of Learned Societies and the National Endowment for the Humanities.

In keeping with this emphasis on diversity, the department is represented by scholars trained in widely different approaches to philosophy, such as the analytic tradition, Continental idealism and existentialism, Marxist dialectic, and Oriental modes of thought.

## General Information

**Degrees and Areas of Concentration** The philosophy department offers three options leading to the B.A. degree in philosophy: one for students intending to enter graduate school in philosophy; another for students seeking a general liberal arts education as their ultimate academic objective or as preparation for professional degrees such as law; and the third for students taking a double major in philosophy and another discipline. Each option offers a balance between training in the techniques of logical analysis, study of philosophical classics, and examination of selected problems in philosophy. The department also offers a minor in philosophy for students wishing to pursue a particular interest in philosophy in an organized way.

## Undergraduate Studies

### General Education Requirements

Majors must meet the University and College general education requirements. Any course in philosophy will satisfy the humanities requirement. Philosophy 120, Asian Philosophy, also satisfies the college non-Euro-American requirement. Majors may not count philosophy courses taken on a satisfactory/unsatisfactory basis toward the degree requirements.

## Degree Requirements

### Bachelor of Arts in Philosophy

Students must complete one of the following programs. At least 30, but not more than 45, hours are required for a major.

**Option One** Designed to prepare students for graduate work in philosophy, the program requires:

**1 Philosophy 160**, Formal Logic

**2 History of Philosophy**—Choose alternative a or b.

**a: Two** courses from Philosophy 101-107 sequence; and **one** course from Philosophy 201-210 sequence.

**b: Philosophy 10** (History of Philosophy I) and Philosophy 11 (History of Philosophy II); **one** course from Philosophy 101-107 sequence; and **one** course from Philosophy 201-210 sequence.

**3 Normative Philosophy**—**One** course from the following:

**Philosophy 230**, Social and Political Philosophy

**Philosophy 235**, Classical Ethical Theories

**Philosophy 238**, Recent Ethical Theory

**4 One** of the following **philosophy** courses:

**240**, Theories of Knowledge

**245**, Metaphysics

**5 Philosophy and other disciplines**—

**One** course from the Philosophy 270-290 sequence.

When appropriate, Philosophy 250, Special Topics in Philosophy, may be used to satisfy the requirement of number 3, 4, or 5.

# Philosophy

Students in this program should take Greek, Latin, French, or German to satisfy the foreign language requirement.

**Option Two** Less restrictive, this option is intended for general liberal arts students or students whose special interests, such as prelaw preparation, do not fall clearly into any one traditional academic department. Requirements include:

**1 Philosophy 160**, Formal Logic

**2 History of Philosophy**—Choose alternative a or b.

**a: two** courses from the following:

**Philosophy 101-107 sequence**

**Philosophy 201-210 sequence**

**b: Philosophy 10** (History of Philosophy I) and **Philosophy 11** (History of Philosophy II) and **one** course from the following:

**Philosophy 101-107 sequence**

**Philosophy 201-210 sequence**

**3** Twelve hours at the 200 level.

**Option Three** Open only to students seeking a double major, the option requires:

**1 Philosophy 60**, Logic and Language or **Philosophy 160**, Formal Logic

**2 History of Philosophy**—Choose alternative a or b.

**a: two** courses from the following:

**Philosophy 101-107 sequence**

**Philosophy 201-210 sequence**

**b: Philosophy 10** (History of Philosophy I) and **Philosophy 11** (History of Philosophy II) and **one** course from the following:

**Philosophy 101-107 sequence**

**Philosophy 201-210 sequence**

**3** Nine hours at the 200 level.

**Departmental Honors** Majors with a 3.2 grade point average or higher in philosophy and overall may, with the department's consent, earn departmental honors by:

- 1 completing at least six hours, but not more than nine, of Philosophy 291, Senior Thesis
- 2 submitting an acceptable thesis before the end of the senior year
- 3 passing an oral examination.

In such cases, the 30 hours required for the major will include the credit earned in Philosophy 291, Senior Thesis.

### Related Area Requirements

Majors are urged to acquire a familiarity with some other field above the introductory level.

**Requirements for the Minor** Fifteen hours of course work in philosophy are required: Philosophy 60, or Philosophy 160, and four other courses numbered above 100, including two numbered above 200.

All courses presented for the minor must be completed with a grade of C or better.

Prospective minors are encouraged to consult with members of the department for advice in planning an appropriate sequence of courses.



# Physics

## Faculty

- Philip B. James**, Professor and Chairperson,  
Ph.D., University of Wisconsin
- Ta-Pei Cheng**, Professor\*  
Ph.D., Rockefeller University
- Peter H. Handel**, Professor\*  
Ph.D., University of Bucharest
- Bob L. Henson**, Professor\*  
Ph.D., Washington University
- Jacob J. Leventhal**, Professor\*  
Ph.D., University of Florida
- Frank E. Moss**, Professor\*  
Ph.D., University of Virginia
- John S. Rigden**, Professor\*  
Ph.D., The Johns Hopkins University
- Richard D. Schwartz**, Professor\*  
Ph.D., University of Washington
- Bernard J. Feldman**, Associate Professor\*: Graduate Coordinator  
Ph.D., Harvard University
- Robert Hight**, Associate Professor\*  
Ph.D., University of Missouri-Columbia
- Thomas J. Crowley**, Assistant Professor  
Ph.D., Brown University
- Bruce A. Wilking**, Assistant Professor  
Ph.D., University of Arizona
- Michael F. Fix**, Lecturer  
M.A., Washington University

\*members of Graduate Faculty

## General Information

**Degrees and Areas of Concentration** The physics department offers course work leading to the B.A. in physics, the B.S. in physics, and in cooperation with the School of Education, the B.A. in physics with teacher certification and the B.S. in education with an emphasis in physics.

The department offers meritorious junior and senior students opportunities to participate in teaching and research to help prepare them for the independent effort required in industry or graduate school. The department's faculty members have a diversity of interests and are active in various experimental and theoretical research areas.

Graduate work leading to the master of science in physics is also offered. The M.S. in physics program combines a sound basis in the fundamental areas of classical and modern physics from both a theoretical and an applied perspective. The program is designed to enable students with undergraduate backgrounds in physics or other technical areas to further their professional development and maintain and improve their technical development. The program is offered almost entirely in the evening to serve students employed locally.

## Undergraduate Studies

### General Education Requirements

Majors must complete the University and College general education requirements. Any of the following courses may be used to satisfy the science requirement:

- Astronomy 1**, Cosmic Evolution/Introductory Astronomy  
**Astronomy 11**, Planets and Life in the Universe or **Astronomy 12**, The Violent Universe and the New Astronomy  
**Atmospheric Science 1**, Elementary Meteorology  
**Geology 1**, General Geology or **Geology 2**, Historical Geology  
**Physics 1**, Foundations of Modern Physical Theory I  
**Physics 170**, Physics of Music or **Physics 172**, Light and Color

### Degree Requirements

All physics majors in all programs must complete the physics core curriculum. In addition to the core courses, each individual program has its own specific requirements.

**Core Curriculum** The following **physics** courses are required:

- 10**, Experimentation in Physics  
**111**, Physics: Mechanics and Heat  
**112**, Physics: Electricity, Magnetism, and Optics  
**200**, Survey of Theoretical Physics  
**221**, Mechanics  
**223**, Electricity and Magnetism  
**231**, Introduction to Modern Physics I

**Also required** are:

- Mathematics 80**, Analytic Geometry and Calculus I  
**Mathematics 122**, Computers and Programming  
**Mathematics 175**, Analytic Geometry and Calculus II  
**Mathematics 201**, Analytic Geometry and Calculus III  
**Mathematics 202**, Linear Algebra and Differential Equations  
**Chemistry 11**, Introductory Chemistry I or equivalent

**Note** Students are urged to begin the calculus sequence (Mathematics 80, Analytic Geometry and Calculus I) as soon as possible to avoid delays in graduation.

Students with experience in digital computer programming may be excused from Mathematics 122, Computers and Programming.

**Bachelor of Arts in Physics** The B.A. program is tailored to students wishing to preserve the option for specialization in graduate school without sacrificing the advantages of a liberal arts education. In addition to the core curriculum, including the foreign language requirement, at least **3 electives** at the 200 or 300 level must be completed.

**Bachelor of Science in Physics** The B.S. degree provides students with four options: general physics, astrophysics, engineering physics, or geophysics.

### General Physics Option

This option may be elected by students desiring a greater concentration in physics and mathematics and is

## Physics

recommended for students wishing to enter graduate study in physics. At least 47 hours, but no more than 51, are required. In addition to the core curriculum, the following **physics** courses are required:

**201**, Elementary Electronics I  
**241**, Thermal and Statistical Physics  
**311**, Advanced Physics Laboratory I  
**312**, Advanced Physics Laboratory II  
**323**, Modern Optics  
**325**, Linear Analysis of Physical Systems  
**331**, Introduction to Quantum Mechanics

and **two electives** at the 200 or 300 level.

**Also required are:**

**Mathematics 303**, Applied Mathematics II  
**Chemistry 12**, Introductory Chemistry II, or equivalent

and **one elective** in math or computer science.

### Astrophysics Option

This option may be elected by students who have interests in the aerospace sciences or anticipate graduate studies in astrophysics. At least 47 hours, but not more than 51, must be taken. In addition to the core curriculum, the following courses are required:

**Physics 323**, Modern Optics  
**Physics 331**, Introduction to Quantum Mechanics  
**Astronomy 50**, Introduction to Astronomy I  
**Astronomy 51**, Introduction to Astronomy II  
**Astronomy 201**, Astrophysics  
**Astronomy 222**, Observational Astronomy

and **two Physics electives** at the 200 or 300 level. With permission of the astronomy adviser, there may be substitution of Astronomy 1, 11, or 12 for 50 or 51.

**Also required are:**

**Mathematics 303**, Applied Mathematics II

and **one additional elective** in mathematics or computer science.

### Engineering Physics Option

Students interested in careers in the research and development field of industry should consider this option. This program exposes the student to a basic engineering curriculum as well as to areas of physics with industrial applications such as electronics, modern optics, and linear analysis. At least 46 hours, but no more than 51, are required. In addition to the core curriculum, the following courses are required:

**Engineering 30**, Engineering Graphics  
**Engineering 85**, Statics and Elementary Strength of Materials  
**Engineering 185**, Introduction to Dynamics  
**Physics 124**, Circuit Analysis I  
**Physics 201**, Elementary Electronics I  
**Physics 241**, Thermal and Statistical Physics  
**Physics 323**, Modern Optics  
**Physics 325**, Linear Analysis of Physical Systems

**Also required** are **two** additional courses in computer science or numerical analysis.

### Geophysics Option

This option is designed for students who are interested in careers in the geosciences. It provides preparation for careers in industry or for graduate study. At least 46 hours, but no more than 51, are required. In addition to the core curriculum, the following courses are required:

**Physics 311**, Advanced Physics Laboratory I  
**Physics 325**, Linear Analysis of Physical Systems  
**Physics 333**, Reflection Seismology  
**Geology 1**, General Geology  
**Geology 2**, Historical Geology  
**Geology 201**, Stratigraphy and Sedimentation

and **two additional physics electives** at the 200 or 300 level.

**Also required are:**

**Mathematics 303**, Applied Mathematics II  
**Mathematics 323**, Numerical Analysis I  
**Chemistry 12**, Introductory Chemistry II, or equivalent

### Bachelor of Science in Education with an Emphasis in Physics

This program is designed for students wishing to teach physics in secondary schools and gives a firm foundation in the history, philosophy, and principles of physics. Students must fulfill the School of Education's general education requirements. For details, consult the physics department and the School of Education.

### Minor in Physics

Students may complete a minor in physics with emphasis on either classical physics (Option A) or modern physics (Option B). The following **physics** courses are required for **both options**:

**10**, Experimentation in Physics  
**111**, Mechanics and Heat  
**112**, Electricity, Magnetism and Optics  
**200**, Survey of Theoretical Physics

**Option A: Classical Physics** The following **physics** courses are required:

**221**, Mechanics  
**223**, Electricity and Magnetism

**Option B: Modern Physics** The following **physics** courses are required:

**231**, Introduction to Modern Physics I  
**232**, Introduction to Modern Physics II

A GPA of at least 2.0 is required in courses presented for a minor.

# Physics

## Graduate Studies

### Admission Requirements

In addition to meeting the Graduate School general admission requirements, applicants must submit scores from the Graduate Record Exam (GRE) physics test. The department requires applicants to have adequate backgrounds in such areas as mechanics, thermodynamics, electromagnetism, optics, electronics, and modern physics. Students admitted to the program with deficiencies in these areas are required to take appropriate undergraduate courses. If necessary, a remedial program is determined in consultation with the department graduate studies director at the time of application for admission.

### Degree Requirements

**Master of Science in Physics** Students must complete 30 hours in graduate physics courses with at least 16 hours at the 400 level. The remaining 14 hours can be taken at the 300 or 400 level. The 14 hours may include two hours of seminar credit or a thesis. The thesis replaces five hours of credit at or above the 300 level. Candidates must also pass a comprehensive examination. For students submitting a thesis, the examination includes a defense of the thesis.

### Typical Program:

First Semester

**Physics:** 400-level and 300-level course

Total: 7 hours

Second Semester

**Physics:** 400-level and 300-level course

Total: 7 hours

Third Semester

**Physics:** 400-level and 300-level course

**Physics 490.** Thesis Research or Seminar

Total: 8 hours

Fourth Semester

**Physics:** 400-level and 300-level course

**Physics 490** Thesis Research or Seminar

Total: 8 hours

## Political Science

### Faculty

- J. Martin Rochester**, Chairperson; Associate Professor\*  
Ph.D., Syracuse University
- Norton E. Long**, Curators' Professor Emeritus  
Ph.D., Harvard University
- Edwin H. Fedder**, Professor\*  
Director of Center for International Studies  
Ph.D., American University
- Werner F. Grunbaum**, Professor\*  
Ph.D., University of Chicago
- Kenneth F. Johnson**, Professor\*  
Ph.D., University of California-Los Angeles
- E. Terrence Jones**, Professor\*;  
Dean, College of Arts and Sciences  
Ph.D., Georgetown University
- Lance T. LeLoup**, Professor\*  
Ph.D., Ohio State University
- C. Peter Magrath**, Professor; President, University of Missouri  
Ph.D., Cornell University
- Eugene J. Meehan**, Professor\*  
Ph.D., London School of Economics
- Frederic S. Pearson**, Professor\*  
Ph.D., University of Michigan
- Lyman T. Sargent**, Professor\*  
Ph.D., University of Minnesota
- Andrew Glassberg**, Associate Professor\*;  
Director, Public Policy Administration Program  
Ph.D., Yale University
- Joel N. Glassman**, Associate Professor\*  
Ph.D., University of Michigan
- Dennis R. Judd**, Associate Professor\*  
Ph.D., University of Illinois
- Carol W. Kohfeld**, Associate Professor\*  
Ph.D., Washington University
- Michele M. Hoyman**, Assistant Professor\*  
Ph.D., University of Michigan
- Barbara A. Luck**, Assistant Professor  
Ph.D., Washington University
- Michael B. MacKuen**, Assistant Professor\*  
Ph.D., University of Michigan
- Joyce M. Mushaben**, Assistant Professor\*  
Ph.D., Indiana University
- David B. Robertson**, Assistant Professor\*  
Ph.D., Indiana University
- J. Frederick Springer**, Assistant Professor\*  
Ph.D., University of California-Davis

\*members of Graduate Faculty

Many members of the political science faculty are nationally-known scholars in their respective fields. All are dedicated to high-quality teaching and education. Department faculty members recently have enjoyed such distinctions as Brookings and Fulbright fellowships, national, state and local research grants, AMOCO good teaching awards, and other forms of recognition. The faculty has published its research in more than 55 books and 300 articles in scholarly journals and is devoted to using research findings to improve teaching.

### General Information

**Degrees and Areas of Concentration** The political science department offers undergraduate work leading to the B.A. degree in political science, B.S. degree in public administration, and, in cooperation with the School of Education, to the B.S. in education with an emphasis in social studies. (See School of Education section in this *Bulletin* for details.) Minors in political science are available to students with a special interest in government and politics but who are majoring in another discipline.

Principal areas of concentration include urban politics, political processes, political behavior, international politics, comparative politics, public administration, public law, and political theory. In many courses, emphasis is placed on the ways in which public policies are developed and administered. In addition to formal course work, internships are available in which the student can relate classroom learning to practical field experience.

The political science department also offers graduate courses leading to the Master of Arts in political science. The M.A. program in political science offers advanced education for individuals anticipating entering a doctoral program and for those seeking careers in government, business, community or not-for-profit agencies. The principal foci of the 33-hour program are on public administration and public policy analysis/evaluation in the local, state, national and international areas. A collaborative program is available for students interested in the administration of justice field, and the flexibility of the general master's degree allows for individualized programs in urban politics, pre-legal education, American national government, comparative politics, international relations, and political theory. A mid-program review assists students in selecting the most appropriate M.A. project--thesis, internship or additional course work. Classes are scheduled so that those employed outside the University can participate in the program on a part-time basis.

**Special Interdisciplinary Degree** The Department of Political Science also cooperates with the Department of Economics in the College of Arts and Sciences and the School of Business Administration in offering a master's degree in public policy administration (MPPA). For information on the MPPA degree program, see that section in this *Bulletin*.

**Cooperative Programs** Political science students may also obtain a certificate in international studies, European studies, East Asian studies, Latin American studies, women's studies, or writing, in conjunction with their political science major. See Certificate Programs in this *Bulletin*.

Research in political science is encouraged for students at all levels. Assistance is available at UMSL's Center for Metropolitan Studies, the Center for International Studies, and the office of Computing and Telecommunications. The department's membership in the Inter-University Consortium



## Political Science

for Political and Social Research provides access to a wide range of survey data on local-state-national, comparative, and international politics. In addition, extensive research opportunities are available within the metropolitan St. Louis area. Financial assistance is available for qualified students; details can be obtained from the department office.

**Course Designations** The department has designated the following instructional areas for the political science student:

- Public Law
- American Politics
- Public Policy and Administration
- Comparative Politics
- Theory and Methodology
- International Relations

In addition to these areas, the department offers several ungrouped courses. All course descriptions are found in a separate *Bulletin*, entitled *Description of Courses*.

### Undergraduate Studies

#### General Education Requirements

Majors must satisfy the University and College general education requirements. Political science courses may be used to satisfy the social sciences requirement. The foreign language requirement may be satisfied in any language. Students may count six hours in political science taken on a satisfactory/unsatisfactory basis toward the major. However, no required departmental course may be taken on a satisfactory/unsatisfactory basis.

#### Departmental Honors

The department awards honors to students having a grade point average (GPA) of 3.2 in the major, an overall GPA of 3.2 (except in extraordinary circumstances), and successful completion of an honors thesis, project, or report.

### Degree Requirements

#### Bachelor of Arts in Political Science

Students must take at least 36 hours, but no more than 45, of political science **including** Political Science 11, Introduction to American Politics, and Political Science 12, Introduction to Comparative Politics. Students must also take at least one course in the political theory and methodology field, with at least one course in four of the following other fields:

- Public Law
- American Politics
- Public Policy and Administration
- Comparative Politics
- International Relations

Students must take at least 18 hours of their political science coursework in courses at the 200 or 300 level.

**Note** As early as possible, students should determine their educational objectives and consult with advisers regarding a plan of study. Depending on career and other interests,

students may wish to concentrate their coursework in one or two of the above-mentioned fields. (See the *Bulletin* description of Political Science Minors, which is suggestive of the tracks of courses that majors might wish to pursue in some depth.) The plan of study should include recommended electives in other departments to complement a student's political science coursework. Students are encouraged to take at least one course in statistics or accounting.

#### Bachelor of Science in Public Administration

Majors must take at least 33, but no more than 45 hours in Political Science. The following **political science** courses are **required**:

- 11, Introduction to American Politics
- 12, Introduction to Comparative Politics
- 102, Research Methods in Political Science
- 140, Public Administration
- 242, Introduction to Public Policy
- 244, Public Budgeting
- 295, Internship (3)
- 340, Organizational Politics
- 342, Public Personnel Management
- 348, Program Evaluation
- 351, Comparative Public Policy and Administration

The following courses from other departments are **required**:

- Economics 51**, Principles of Microeconomics
- Economics 52**, Principles of Macroeconomics
- Business Administration 140**, Fundamentals of Financial Accounting

plus **one** of the following **statistics** courses:

- Mathematics 31**, Elementary Statistical Methods
- Mathematics 132**, Applied Statistics
- Business 131**, Elementary Statistics
- Psychology 101**, Psychological Statistics
- Sociology 120**, Quantitative Techniques in Sociology

and **one** of the following **computer science** courses:

- Mathematics 22**, Introduction to Computing
- Mathematics 122**, Computers and Programming
- Business 103**, Introduction to Business Data Processing

**Satisfactory/Unsatisfactory:** Students may take 6 hours in the required courses on a satisfactory/unsatisfactory basis that count toward the major.

**Area of Specialization: 12 hours required** Each major must specialize in some substantive or topical area within public administration. Possible areas of specialization include, but are not limited to: planning, budgeting, personnel, management, and evaluation/analysis. Courses designed to fulfill the specialization requirement must be selected in conjunction with the B.S. in public administration program adviser. These hours may be used in partial satisfaction of the general education requirement in social science.

**Note** Students considering the B.S. in public administration should see a political science adviser as early as possible to plan their program.

# Political Science

## Requirements for the Minors

A general minor in political science can be arranged, as well as specialized minors in eight different subfields of the discipline. Interested students should see a faculty adviser to plan a coherent program of study as a minor field.

Students must achieve a cumulative 2.0 GPA in the political science courses chosen to qualify for the minor.

**Minor in Political Science, General Fifteen hours** of political science with a 2.0 grade point average.

**Minor in American Politics Fifteen hours**, chosen from the following **political science** courses:

- 11, Introduction to American Politics
- 130, State Politics
- 131, Congressional Politics
- 135, Introduction to Urban Politics
- 165, American Political Thought
- 230, The American Presidency
- 233, Introduction to Political Behavior
- 235, Political Parties
- 240, Bureaucratic Politics
- 241, The Politics of Business Regulation
- 242, Introduction to Public Policy
- 282, United States Foreign Policy
- 295, Internship (when appropriate)
- 328, The Federal Judicial System: Politics, Process and Behavior
- 331, Legislative Processes
- 332, Studies in Political Behavior
- 390, Special Readings (when appropriate)

## Minor in Comparative Politics

**Political Science 12**, Introduction to Comparative Politics

plus **12 hours**, from the following **political science** courses:

- 251, Comparative Politics of Western Europe
- 252, The Politics of Modernization
- 253, Political Systems of South America
- 254, Political Systems of Mexico, Central America, and the Caribbean
- 255, Asian Comparative Politics
- 256, Soviet Political Systems
- 351, Comparative Public Policy and Administration
- 359, Studies in Comparative Politics
- 390, Special Readings (when appropriate)

**Minor in International Relations Fifteen hours**, chosen from the following **political science** courses:

- 80, Global Issues
- 180, World Politics
- 282, United States Foreign Policy
- 284, European International Relations
- 285, International Institutions and Global Problem-Solving
- 286, Studies in War and Peace
- 288, African Politics
- 289, Middle Eastern Politics
- 295, Internship (when appropriate)
- 381, Foreign Policy Decision-Making
- 385, International Law
- 388, Studies in International Relations
- 390, Special Readings (when appropriate)

**Minor in Political Theory Fifteen hours**, chosen from the following **political science** courses:

- 60, Civilization and Politics
- 101, Theory and Policy
- 160, Contemporary Political Ideologies
- 165, American Political Thought
- 261, Ancient and Medieval Political Thought
- 262, Modern Political Thought
- 265, Recent Political Thought
- 269, The Marxist Heritage
- 368, Studies in Political Theory
- 390, Special Readings (when appropriate)

## Minor in Public Administration

**Political Science 140**, Public Administration

plus **12 hours**, chosen from the following **political science** courses:

- 240, Bureaucratic Politics
- 241, The Politics of Business Regulation
- 242, Introduction to Public Policy
- 244, Public Budgeting
- 245, Urban Administration
- 295, Internship (when appropriate)
- 340, Organizational Politics
- 342, Public Personnel Management
- 343, Studies in Policy Formation
- 346, Urban Planning and Politics
- 348, Program Evaluation
- 349, Studies in Public Administration
- 351, Comparative Public Policy and Administration
- 390, Special Readings (when appropriate)

**Minor in Public Law Fifteen hours**, chosen from the following **political science** courses:

- 20, Foundations of Law: Introduction to Legal Studies
- 121, Civil Liberties
- 129, Women and the Law
- 225, Jurisprudence
- 227, Urban Law: Poverty and the Justice System
- 320, Introduction to American Constitutional Law
- 327, Urban Justice Systems
- 328, The Federal Judicial System: Politics, Process and Behavior
- 329, Studies in Public Law
- 385, International Law
- 390, Special Readings (when appropriate)

## Minor in Public Policy

**Political Science 242**, Introduction to Public Policy

plus **12 hours**, chosen from the following **political science** courses:

- 130, State Politics
- 135, Introduction to Urban Politics
- 140, Public Administration
- 230, The American Presidency
- 241, The Politics of Business Regulation
- 244, Public Budgeting
- 245, Urban Administration
- 295, Internship (when appropriate)
- 346, Urban Planning and Politics
- 348, Program Evaluation
- 351, Comparative Public Policy and Administration
- 390, Special Readings (when appropriate)

# Political Science

## Minor in Urban Politics

**Political Science 135**, Introduction to Urban Politics

plus **12 hours**, chosen from the following **political science** courses:

**227**, Urban Law: Poverty and the Justice System

**245**, Urban Administration

**295**, Internship (when appropriate)

**327**, Urban Justice Systems

**346**, Urban Planning and Politics

**390**, Special Readings (when appropriate)

## Graduate Studies

### Admission Requirements

For admission, a student should have a baccalaureate degree with a minimum grade point average of 2.75 and an undergraduate background in the social sciences. The Graduate Record Examination is required, and scores should be submitted at the time of application. Two letters of recommendation are also requested for each student applying to the program. Students who do not meet these requirements may be admitted upon approval of the department and the dean of the Graduate School. Application materials may be obtained from and should be returned to the office of the director of admissions. Deadlines are: July 1 for the fall semester; December 1 for the winter semester; and May 1 for the summer term.

**Assistantships** A limited number of teaching and research assistantships are available for specifically qualified students, which include a stipend and remission of out-of-state fees for half-time (20 hours per week) work during the nine-month academic year.

Requests for further information about the program should be sent to the Director of Graduate Studies, Department of Political Science, University of Missouri-St. Louis, 8001 Natural Bridge Road, St. Louis, MO 63121.

### Degree Requirements

**Master of Arts in Political Science** Beyond the general requirements of the Graduate School, the department requires a minimum of 27 semester hours of course work of which 18 hours must be at the 400 level, and 12 hours must be in core courses in **political science** as follows:

**401**, Introduction to Policy Research

**410**, Introduction to Policy Analysis

**420**, Proseminar in Public Law

**430**, Proseminar in American Politics

**440**, Proseminar in Public Policy Administration

**450**, Proseminar in Comparative Politics

**460**, Proseminar in Political Theory

**470**, Proseminar in Urban Politics

**480**, Proseminar in International Relations

Students can plan their degree program to reflect the following six emphasis areas:

American Politics

Comparative Politics

International Politics

Political Process and Behavior

Public Administration and Public Policy

Urban and Regional Politics

Students must also select one of the following exit projects: a six-hour thesis, a six-hour internship, or six hours of additional course work and an approved paper. Students will have a mid-program review at the end of 12-15 hours of course work at which time they will discuss their academic performance and program with a faculty committee and determine the most appropriate exit project. Each candidate is given a final oral review conducted by a faculty committee and focused on the course work completed and the student's chosen exit project.

## Career Outlook

Political science majors have done well in the job market and in pursuing graduate education. Majors develop communications and decision-making skills, learn to analyze complex policy issues, both domestic and international in scope, and have a far better understanding of government than others. Political science is a particularly good undergraduate major for prelaw students. Many other majors pursue graduate education in business, education, public administration, public policy administration, journalism, and many other fields. Publications relating to careers in political science are available in the department office.

# Psychology

## Faculty

**Gary K. Burger**, Professor\*, Chairperson; Director, Doctoral Program in Applied Psychology Emphasis Area  
Ph.D., Loyola University

**Edmund S. Howe**, Professor\*, Director, Doctoral Program in General-Experimental Psychology Emphasis Area and Master of Arts Program in Psychology  
Ph.D., University of London

**Arthur L. Irion**, Professor\*, Emeritus  
Ph.D., University of Iowa

**Alan G. Krasnoff**, Professor\*  
Ph.D., University of Texas

**Arthur C. MacKinney**, Professor\*, Vice Chancellor for Academic Affairs  
Ph.D., University of Minnesota

**Miles L. Patterson**, Professor\*  
Ph.D., Northwestern University

**George T. Taylor**, Professor\*  
Ph.D., University of New Mexico

**Fred J. Thumin**, Professor\*†  
Ph.D., Washington University

**James T. Walker**, Professor\*  
Ph.D., University of Colorado

**S.J. Williamson**, Adjunct Professor  
Ph.D., University of Iowa

**Dominic J. Zerbollo, Jr.**, Professor\*  
Ph.D., Michigan State University

**Robert J. Carr**, Adjunct Associate Professor  
Ed.D., Boston University

**James A. Breaugh**, Associate Professor\*†  
Ph.D., Ohio State University

**Robert J. Calsyn**, Associate Professor\*  
Ph.D., Northwestern University

**Dennis L. Dosssett**, Associate Professor\*†  
Ph.D., University of Washington

**Theresa S. Howe**, Associate Professor\*  
Ph.D., University of California-Berkeley

**Samuel J. Marwit**, Associate Professor\*  
Ph.D., State University of New York at Buffalo

**Jacob L. Orlofsky**, Associate Professor\*, Director, Community Psychological Service  
Ph.D., State University of New York at Buffalo

**Patricia Resick**, Associate Professor\*  
Ph.D., University of Georgia

**Jayne E. Stake**, Associate Professor\*, Director, Doctoral Program in Clinical Psychology Emphasis Area  
Ph.D., Arizona State University

**Kenneth H. Bohm**, Adjunct Assistant Professor  
Ph.D., St. Louis University

**John J. Boswell**, Assistant Professor\*  
Ph.D., Tulane University

**Jane E. Brownstone**, Adjunct Assistant Professor  
Ph.D., Washington University

**Phillip Decker**, Assistant Professor\*†  
Ph.D., Ohio State University

**Donald D. Lisenby**, Assistant Professor\*; Associate Chairperson  
Ph.D., Washington University

**Barry R. Nathan**, Assistant Professor\*  
Ph.D., University of Akron

**Ronald A. Oliver**, Adjunct Assistant Professor  
Ph.D., Iowa State University

**Suzanna M. Rose**, Assistant Professor\*  
Ph.D., University of Pittsburgh

**Michael N. Stake**, Adjunct Assistant Professor  
Ph.D., Arizona State University

**Mark E. Tubbs**, Assistant Professor  
Ph.D., University of Houston

**Brian Vandenberg**, Assistant Professor\*  
Ph.D., University of Rochester

**Marylyn N. Voerg**, Adjunct Assistant Professor  
Ph.D., University of Florida

**Leslie A. Whitaker**, Assistant Professor\*  
Ph.D., Pennsylvania State University

\*members of the Graduate Faculty

†Primary appointment in the School of Business Administration

## General Information

**Degrees and Areas of Concentration** The psychology department offers work leading to the B.A. degree in psychology. In conjunction with course work in the department, students have the opportunity to do research in a wide variety of areas, including animal and human learning, human factors, perception, physiological, industrial-organizational, cognitive processes, personality-social, developmental, clinical, and community psychology. The student may choose an area of concentration in graduate school preparation, child care and development specialization, and community mental health. The student, however, is not required to do so and may devise an individual program in consultation with the adviser.

The department also offers an M.A. and Ph.D. in psychology. The emphasis areas within the Ph.D. program are clinical psychology, experimental psychology and applied psychology.

**Facilities** Among the department's physical facilities are an environmental chamber, comparative, social, and human experimental laboratories, and a wide range of research equipment, including portable videotaping systems. The department also has an electronics technician.

**Minor in Psychology** The department offers a minor in psychology to students with a special interest in this field but who wish to major in another discipline.

## Undergraduate Studies

### General Education Requirements

Majors must satisfy the University and College general education requirements. Courses in psychology may be used to meet the social sciences requirement. Majors may not take psychology courses on a satisfactory/unsatisfactory basis.

### Undergraduate Psychology Office

Advisers in the Undergraduate Psychology Office (Room 340 Stadler Hall) are available to answer questions regarding career options in psychology, as well as provide specific information on degree requirements. The advisers can process all necessary materials for registration and graduation.



# Psychology

## Degree Requirements

### Bachelor of Arts in Psychology

At least 32, but no more than 45, hours must be completed in psychology. The following core curriculum is **required**:

**Psychology 3**, General Psychology  
**Psychology 101**, Psychological Statistics  
**Psychology 219**, Research Methods

**Note** Students must take Mathematics 30, College Algebra, or the equivalent, before taking Psychology 101, Psychological Statistics.

In addition to the core curriculum, at least 22 additional credit hours in psychology must be taken. At least **three** courses totalling a minimum of nine hours must be at the 300 level. No more than six hours of independent study courses (Psychology 295, Selected Projects in Field Placement; and Psychology 390, Directed Studies) may be counted toward the 32-hour minimum needed for graduation.

**Graduate School Preparation** This program is designed for students planning to pursue doctoral studies in psychology. In addition to the core requirements, students are advised to take Psychology 361, History and Systems of Psychology, and at least **one** of the following laboratory courses in **psychology**:

**314**, Physiological Psychology  
**354**, Experimental Personality and Social Psychology  
**355**, Psychology of Perception  
**357**, Psychology of Learning  
**365**, Psychological Tests and Measurements

Students are also encouraged to become involved in independent research (Psychology 390, Directed Studies).

**Child Care and Development Specialization** The program is ideal for double majors in education and psychology or for students interested in working with children in a variety of career fields. In addition to the core curriculum, students are advised to take at least **five** of the following **psychology** courses with at least **two** at the **300 level**:

**111**, Human Motivation  
**150**, The Psychology of Individual Differences  
**216**, Personality Theory  
**270**, Child Psychology  
**271**, Adolescent Psychology  
**272**, Adult Development and Aging  
**295**, Selected Projects in Field Placement  
**305**, Cognitive Development  
**306**, Social Development  
**349**, Human Learning and Memory  
**356**, Thinking and Cognition

**Community Mental Health Specialization** Designed for students seeking careers in community activity, this program is especially suitable for double majors in another social science, particularly in social work and sociology. In addition to the core curriculum, students are advised to take at least **five** of the following courses in **psychology**, with at least **two** at the **300 level**:

**225**, Behavior Modification  
**235**, Community Psychology  
**245**, Abnormal Psychology  
**256**, Environmental Psychology  
**295**, Selected Projects in Field Placement  
**346**, Introduction to Clinical Psychology  
**354**, Experimental Personality and Social Psychology  
**360**, Attitude Structure and Change  
**365**, Psychological Tests and Measurements

**Requirements for the Minor** Candidates must take at least 15 hours of course work in psychology, including at least six hours of 300-level course work in psychology.

Candidates must have a cumulative grade point average of 2.0 or better in the minor. Psychology courses taken on a satisfactory/unsatisfactory basis may not be applied to the minor.

## Graduate Studies

### Admission Requirements

In addition to meeting the general admission requirements of the Graduate School, applicants should have completed undergraduate courses in general psychology, psychological statistics, and experimental psychology.

### Degree Requirements

#### M.A. in Psychology

The master of arts in psychology degree program has a broad, general foundation with specialization sub-areas that include: industrial, personnel management, human factors; experimental; and gerontology. The program is **not** directed toward the areas of clinical psychology or counseling. There is no thesis or language requirement. Most classes are held in the early evening hours. Part-time or full-time enrollment is possible.

The M.A. in psychology requires a total of 32 semester hours of coursework. Required for the M.A. is one of **two** sets of quantitative courses. Students must take **either** of the following sets:

#### Set I

**Psychology 427**, Quantitative Measurement and Evaluation of Psychology I  
**Psychology 428**, Quantitative Measurement and Evaluation of Psychology II

or

#### Set II

**Psychology 421**, Quantitative Methods I  
**Psychology 422**, Quantitative Methods II

## Psychology

Two courses in General Psychology are required and may be fulfilled by two courses from **either** of the following sets:

### Set I

**Psychology 408**, Proseminar in General Psychology

**Psychology 409**, Proseminar in Experimental Psychology

### Set II

(Any two courses from the following:)

**Psychology 405**, Personality

**Psychology 412**, Social Psychology

**Psychology 417**, Human Factors

**Psychology 461**, Learning

**Psychology 467**, Conceptual Systems

**Psychology 468**, Cognitive Processes

Elective courses will constitute the remaining hours needed for the degree. All students' programs of study require the approval of a departmental adviser.

### Ph.D. in Psychology

The Ph.D. program is organized around courses and directed research experience that emphasize the scientific approach to the study of psychology. Courses in the areas of quantitative methods, design and methodology, personality, motivation, social psychology, learning, and cognition are focal in the Ph.D. program. Within the Ph.D. program there are three distinct emphasis areas.

Each emphasis area in the doctoral program has its own specific course and research requirements. Handouts describing these requirements are available from the department on request. The following briefly describes each emphasis area within the doctoral program.

**Clinical Psychology** The clinical psychology emphasis area is accredited by the American Psychological Association and is patterned upon the scientist-professional model with a focus on problems in urban living. The goal of this emphasis area is to train clinical psychologists who are capable of generating, applying and transmitting knowledge in order to understand, correct and prevent psychological and social dysfunctions. Integrating theory, research, and clinical training through the medium of courses, practicum, and research experiences, this emphasis area prepares clinical psychologists for careers in service, research, and teaching.

Students participate at each year level in the psychology department's Community Psychological Service. This facility provides psychological services to the public and consultation to outside agencies. Students also receive clinical experience in practicum settings in the community and during a year-long internship. Research requirements include an initial independent research project and a dissertation. Only full-time students are accepted into the clinical psychology emphasis area.

**General Experimental Psychology** The general experimental emphasis area provides opportunities for study and research in the areas of human learning, memory and cognition, personality development and social psychology, and psychobiology. Part-time or full-time enrollment is possible.

**Applied (Industrial-Organizational) Psychology** The applied psychology emphasis area is offered in conjunction with the general experimental emphasis option and with the cooperation of selected faculty from the School of Business. This emphasis provides training in human factors, consumer psychology, personnel selection and training, test development and validation, and organizational psychology. Research and other training experiences in various settings are also incorporated. Both part-time and full-time enrollment is possible.

**Teaching Assistantships** Stipends for full-time teaching assistantships are available. Out-of-state tuition fees are waived for teaching assistants.

**Applications** Each emphasis area has its own deadline for completed applications. They are as follows:

#### Ph.D. in Psychology:

**Clinical Psychology** – February 1

**Experimental Psychology** – February 28

**Applied Psychology** – February 28 (later applications will be considered if openings exist)

**M.A. in General Psychology** – July 15

## Career Outlook

The undergraduate major in psychology can lead to further training at the graduate level, function as a major within a general liberal arts degree, or offer some degree of specialization in such areas as child care and development, and community mental health. Job opportunities with a bachelor's degree include working in business, social welfare, and probation and parole. For more specific career information see an adviser in the Undergraduate Psychology Office (Room 340 Stadler). To function specifically as a psychologist, a graduate degree is required, and students with such an interest should plan for this additional training.

# Social Work

## Faculty

**Norman Flax**, Chairperson, Associate Professor\*  
Ph.D., St. Louis University  
**Muriel Pumphrey**, Professor Emeritus\*  
D.S.W., Columbia University  
**Joan Hashimi**, Associate Professor\*  
Ph.D., Washington University  
**Anthony E.O. King I**, Assistant Professor\*  
Ph.D., Washington University  
**Lois Pierce**, Assistant Professor  
Ph.D., Washington University  
**Sanford Schwartz**, Assistant Professor\*  
Ph.D., Washington University  
**Delores I. Johnson**, Visiting Instructor, Evening College  
M.S.W., St. Louis University

\*members of Graduate Faculty

The Social Work faculty reflects a cross section of the social work profession. Many specialties are represented, including child welfare, gerontology, community organization, and medical social work. The faculty, in addition to maintaining high standards of teaching, provide many hours of community service and practice to the numerous social service agencies in St. Louis. Research is also an integral part of the faculty's activities and many scientific papers are given by our faculty to local, national, and international meetings.

## General Information

**Degrees and Areas of Concentration** The Department of Social Work offers courses leading to a Bachelor of Social Work degree (B.S.W.). The Social Work program is fully accredited by the Council on Social Work Education. The faculty stresses the scientific and applied aspects of social work. Social forces and cultural traditions affecting the individual are studied from a scientific perspective, and first-hand exposure to their effects is stressed through community involvement. Throughout, the contributions of arts and sciences toward a well-rounded liberal arts education are emphasized. A minor in social work is also offered.

The department's scientific approach is reflected in an emphasis on the development of adequate theoretical and methodological tools. There is a strong emphasis on practice, with community and social agency field work as important parts of the program. Many faculty members are engaged in research on urban-related issues and work with various urban agencies, particularly in the areas of crime, delinquency, social welfare, gerontology, and education.

Social work majors should obtain a copy of the student's manual. Students who wish to take a practicum must set up an appointment with the practicum coordinator at least six weeks before the beginning of the semester.

## Undergraduate Studies

### General Education Requirements

Majors must satisfy the University and College general education requirements, except that proficiency in a foreign language is not required.

Courses required for the B.S.W. degree may not be placed on a satisfactory/unsatisfactory basis.

## Degree Requirements

**Bachelor of Social Work** Students completing this degree may enter beginning positions as social workers or choose to enter professional schools of social work, looking toward eventual careers in supervision, administration, research, and other specialized areas of practice. Candidates for this degree program must complete the following **core requirements**:

**Social Work 100**, Introduction to Social Service  
**Social Work 200**, Social Welfare as a Social Institution  
**Social Work 210**, Interventive Strategies in Social Work Practice I  
**Social Work 220**, Social Issues and Social Policy Development  
**Social Work 280**, Human Behavior in the Social Environment  
**Social Work 300a and 300b**, Interventive Strategies in Social Work Practice II and III  
**Social Work 320a and 320b**, Social Work Practicum in Supervised Field Experience and Operational Research

A maximum of 50 hours in social work may be elected with a minimum of 30 hours in social work, plus 20 hours in related departments.

Evaluation of transfer credits will be done by a social work adviser on an individual basis.

### Related Area Requirements

The following courses, or their alternatives, are required:

**Biology 1**, General Biology or **Biology 10**, Introductory Biology and one additional biology course  
**Sociology 10**, Introduction to Sociology  
**Psychology 3**, General Psychology  
**Sociology 160**, Social Psychology or **Psychology 160**, Social Psychology  
**Sociology 120**, Quantitative Techniques in Sociology  
**Sociology 130**, Research Methods  
**Political Science 11**, Introduction to American Politics  
**Economics 40**, Introduction to the American Economy

At least nine more hours must be taken in social work, sociology, political science, psychology, or economics at the 100 level or above.

Social work majors must have a cumulative grade point average of **2.5 or better in all course work specifically required** for the major, with an average of **3.0 in practicum**.

**Note Anthropology, biological sciences, and Spanish are strongly advised by graduate social work schools.**

### Requirements for the Minor in Social Work

Candidates must complete the following courses in social work

**100**, Introduction to Social Service  
**200**, Social Welfare as a Social Institution  
**210**, Interventive Strategies in Social Work Practice  
**220**, Social Issues and Social Policy Development and one course above the 220 level

## Sociology

### Faculty

**George J. McCall**, Chairperson; Professor\*

Ph.D., Harvard University

**K. Peter Etzkorn**, Professor\*, Associate Dean, Graduate School;

Director, Office of Research

Ph.D., Princeton University

**Jerome Himelhoch**, Professor Emeritus\*

Ph.D., Columbia University

**James H. Laue**, Professor\*

Ph.D., Harvard University

**Harry H. Bash**, Associate Professor\*

Ph.D., University of Pennsylvania

**Sarah L. Boggs**, Associate Professor\*

Ph.D., Washington University

**Daniel J. Monti**, Associate Professor\*

Ph.D., University of North Carolina

**Herman W. Smith**, Associate Professor\*

Ph.D., Northwestern University

**Ronald M. Denowitz**, Assistant Professor\*

Ph.D., University of Chicago

**Michael C. Stein**, Assistant Professor

Ph.D., University of Nebraska-Lincoln

\*members of Graduate Faculty

The faculty prides itself on its commitments to high standards of teaching and to sound scholarly research. Systematic course evaluations by students each semester are taken seriously, and individual faculty have been singled out as nominees and recipients of Excellence in Teaching awards. The scholarly research expected of University faculty is reflected particularly in the conduct of upper-level and graduate courses, as well as in the publication credits of the faculty. Each year, faculty members author numerous articles in scholarly and professional journals and present research papers at various professional meetings.

### General Information

**Degrees and Areas of Concentration** The sociology department offers work leading to the B.A. and B.S. in sociology and, in cooperation with the School of Education, the B.S. in education with an emphasis in social studies (see School of Education for details). A minor in sociology is also offered.

Faculty stress the scientific and applied aspects of sociology. Social forces and cultural traditions affecting the individual are studied from a scientific perspective, and first-hand exposure to their effects is stressed through community involvement. Throughout, the contributions of sociology toward a well-rounded liberal arts education are emphasized.

The department's scientific approach is reflected in an emphasis on the development of adequate theoretical and methodological tools. In addition, there is strong emphasis on the applied uses of sociological insights and methods in a distinctly urban thrust. Many faculty members are engaged in research on urban-related issues and work with various urban agencies, particularly in the areas of crime, delinquency,

social welfare, and education. Sociology majors should obtain a copy of *Guide to Undergraduate Studies in Sociology* from their advisers to familiarize themselves with the degree programs, rules and regulations, and interests of faculty members. All majors should consult their advisers regularly.

The department also offers graduate work leading to an M.A. in sociology. The program is designed around two central considerations: intellectual and professional rigor, and realistic career preparation. Thus, the academic strengths of traditional graduate education are combined with practical modalities for applying sociological knowledge to contemporary urban issues and problems.

**Minor in Sociology** The minor in sociology is designed to provide a coherent curriculum to students majoring in other disciplines and to enhance the employment options for certain students majoring in related disciplines.

### Undergraduate Studies

#### General Education Requirements

Majors must satisfy the University and College general education requirements. Courses in sociology may be used to meet the social sciences requirement. Any foreign language may be used to meet the language requirement for the B.A. degree. A foreign language is not required for the B.S. degree. Department courses taken on a satisfactory/unsatisfactory basis may not be applied toward the major.

#### Degree Requirements

**Bachelor of Arts in Sociology** Candidates must complete the following **core requirements**:

**Sociology 10**, Introduction to Sociology

**Sociology 110**, Sociological Theory

**Sociology 120**, Quantitative Techniques in Sociology or

**Mathematics 31**, Elementary Statistical Methods or

**Mathematics 102**, Finite Mathematics I

**Note** Students planning to do graduate study, however, are urged to take Sociology 120 rather than the mathematics option.

#### Also required:

**Sociology 130**, Research Methods

**Sociology 131**, Research Methods Lab

At least 18 more hours of sociology courses must be taken, including **at least six** hours at the **300 level**, exclusive of Sociology 350, Special Study. No more than three hours in sociology below the 100 level can count toward these 18 hours. Applied training through one or more practicum courses may be used as part of this requirement.

Not more than 10 hours of junior college transfer credit may be applied toward the minimum 31 hours required for the major.



# Sociology

## Related Area Requirements

Majors expecting to continue their studies in graduate school are strongly advised to be well prepared in mathematics, computer science, and philosophy of science. It is also advisable to take courses in anthropology, economics, philosophy, political science and psychology.

**Bachelor of Science in Sociology** Candidates must complete the **core requirements** consisting of the following **sociology** courses:

- 10, Introduction to Sociology
- 110, Sociological Theory
- 120, Quantitative Techniques in Sociology
- 130, Research Methods
- 131, Research Methods Lab
- 250, Sociological Writing
- 370a, Selected Topics in Techniques of Applied Research
- 370b, Selected Topics in Techniques of Applied Research

At least 15 more hours of sociology courses must be taken for the B.S., consisting of 6 hours of research practicum courses and 9 hours of substantive courses. The specific courses to be taken should be decided in conference with the student's adviser to assure continuity and applicability of courses and career objectives.

## Also required are:

- Economics 51**, Principles of Microeconomics
- English 161**, Technical Writing
- Mathematics 102**, Finite Mathematics
- Mathematics 232**, Applied Statistics
- Philosophy 60**, Logic and Language
- Philosophy 282**, Philosophy of Social Science

and **one** of the following **political science** courses:

- 140, Public Administration
- 240, Bureaucratic Politics
- 245, Urban Administration
- 343, Studies in Policy Formation

## Requirements for the Minor in Sociology

Students must apply for a minor in sociology. Candidates must complete these core **sociology** courses:

- 110, Sociological Theory
- 120, Quantitative Techniques in Sociology
- 130, Research Methods
- 131, Research Methods Lab

In addition, they must take at least six hours of 300-level course work in sociology (other than Sociology 350, Special Study).

Candidates must have a cumulative grade point average of 2.0 or better in all course work specifically required for the minor. Department courses taken on a satisfactory/unsatisfactory basis may not be applied to the minor.

## Graduate Studies

### Curriculum

The curriculum is developed in continuity with the department's general orientation toward "Urban Problems and Social Change" and is guided by periodic reassessments of its history, faculty strengths, changing employment and developing career patterns in sociology, and by student needs. Based on a common core curriculum, the program offers four **Concentrations** designed to prepare students for a variety of career options: program evaluation and research; field or case work related to community issues; administrative roles in social agencies and planning organizations; and/or doctoral studies in sociology or related fields.

The curriculum is designed to serve the needs of full-time students as well as working students who are able to engage only in part-time studies.

This design permits persons currently in research or policy positions in service agencies or community organizations to further their career developments through appropriate selection among the alternative concentrations. The curriculum also invites students to take advantage of the University's urban setting through integrating, under faculty guidance, selected community agency or organization experiences with practicum courses and academic seminars.

Through the four career concentrations, grounded in studies of deviance (including criminology and law-and-society), urban sociology (including stratification and minority relations), and social psychology, the program aims to prepare students for professional activities that will contribute to community problem-solving as well as scholarly discourse.

### Admission Requirements

Students admitted to the program are assigned a graduate adviser from whom they should obtain a copy of the *Graduate Student Handbook*, and with whom they should consult periodically on academic and career considerations.

In addition to meeting the general admission requirements of the Graduate School, students **must** have at least **nine** credit hours in sociology **and** credit in the following courses:

- Sociology 110**, Sociological Theory
- Sociology 120**, Quantitative Techniques in Sociology
- Sociology 130**, Research Methods
- Sociology 131**, Research Methods Lab

or their equivalents.

A completed application shall include three letters of recommendation from persons qualified to judge the candidate's potential for success in the program, and a statement describing the applicant's interest in graduate study in sociology.

Students wishing to continue regular employment outside the University may enroll on a part-time basis.

# Sociology

## Degree Requirements

### Master of Arts in Sociology

Candidates for the M.A. degree shall complete a minimum of 30 hours of approved study, 21 of which must be taken in courses offered by the department. The following requirements shall be fulfilled:

#### Core Curriculum

**Sociology 420**, Pro-Seminar in Sociology

**Sociology 424**, Research Practicum

**Sociology 432**, Advanced Methodology

**Sociology 434**, Sociological Reporting

#### Concentration

Each student selects a concentration of at least 12 hours from among the following areas:

- 1 Advanced Sociological Perspectives
- 2 Community Conflict Intervention
- 3 Program Design and Evaluation Research
- 4 Social Policy, Planning and Administration

Six hours in each concentration area are taken in courses required for that area, and at least six hours are elected from a group of approved courses. Required and elective courses for each concentration area are listed in the *Graduate Student Handbook*, available from the student's adviser.

**Exit Requirement** Students fulfill the exit requirement through successful completion of Sociology 434, Sociological Reporting, and preparation of a research report of publishable quality. The report is developed in conjunction with work in the four core courses and is supervised by a committee approved by the department and the graduate dean. The committee administers an oral examination centered on the completed project.

**Plan of Study** Each student shall prepare an adviser-approved course of study during the first semester of enrollment.

#### Elective Internship in an Agency or Community

**Organization** Students in the program are encouraged to elect a supervised internship in (a) a private or public social agency, (b) a community or neighborhood citizens organization, or (c) a labor, corporate or political organization. Such an internship usually is taken in relation to the research practicum core course, or in relation to Sociology 480, Individual Study, or Sociology 490, Supervised Research.

# Speech Communication

## Faculty

**Donald Shields**, Chairperson; Associate Professor\*; Director of Communication Area

Ph.D., University of Minnesota

**James Fay**, Associate Professor\*; Director of Theatre Area

M.F.A., Tulane University

**Michael Murray**, Associate Professor\*; Director of Mass Communication Area

Ph.D., University of Missouri-Columbia

**Gary Burns**, Assistant Professor\*; Director of Television Area

Ph.D., Northwestern University

**Elizabeth Kizer**, Assistant Professor\*; Director of Interpersonal Communication Area

Ph.D., Purdue University

**Ronald Turner**, Assistant Professor\*; Special Assistant to the President

Ph.D., University of Missouri-Columbia

**Gayle Brickman**, Lecturer

M.A., Northwestern University

**Thomas Eschen**, Lecturer; Director of Development, KWMU-FM

M.A., Saint Louis University

**John Grassilli**, Lecturer; Theatre Project Company, Artist-in-Residence

M.A., Mount Holyoke

**Wendy Hearn**, Lecturer

M.A., Michigan State University

**Clark McMillion**, Lecturer; Director of Public Speaking Area

M.A., State University College of New York at Brockport

**C. Thomas Preston**, Lecturer; Director of Debate/Forensic Activities

M.A., University of North Carolina, Chapel Hill

**Scott Sharer**, Lecturer; Managing Director of Theatre

M.F.A., Texas Christian University

**Pamela Sterling**, Lecturer; Theatre Project Company, Artist-in-Residence

M.F.A., University of Washington, Seattle

**Carol Thompson**, Adjunct Assistant Professor

Ph.D., Southern Illinois University

**Debra Wicks**, Lecturer, Assistant Director of Theatre

M.F.A., Lindenwood College

\*members of Graduate Faculty

The speech communication faculty is composed of individuals who approach their discipline from a variety of perspectives, yet who share a commitment to exceptional teaching and to high standards of scholarship and technical expertise. Faculty members are active in national professional organizations and publish their research in a wide spectrum of scholarly journals. Annual student evaluations rate the department's teaching as excellent. In public workshops, lectures, and radio, television, and theatre productions, faculty members demonstrate that in addition to being scholars and teachers of communication, they are also outstanding practitioners.

## General Information

The subject matter of speech communication is human beings as communicators. The B.A. degree in speech communication provides students with opportunities to study theatre, public address, interpersonal and small group

communication, and mass communication from theory, performance, and research perspectives. In addition to traditional classrooms, laboratory facilities are maintained in the areas of mass communication production, theatre production, and interpersonal communication.

## Minors in Speech Communication

The department offers four minor programs for students with an interest in communication studies who are majoring in other disciplines.

## Undergraduate Studies

### General Education Requirements

Majors must satisfy the University and College general education requirements. The College's foreign language requirement may be taken in any language. Most speech communication courses may be taken on a satisfactory/unsatisfactory basis, but only six hours of work taken on a satisfactory/unsatisfactory basis can count toward the major requirement of 36 hours.

### Course Emphasis Categories

Courses offered by the speech communication department are categorized as follows below. Students will need to refer to this list in choosing courses to meet the requirements of their particular emphasis area.

### Interdivisional Courses

- 60, Voice and Diction
- 160, Fundamentals of Oral Interpretation
- 199, Special Projects in Communication
- 260, Advanced Oral Interpretation
- 261, Readers Theatre
- 262, Storytelling Workshop
- 299, Special Projects in Communication
- 392, Administration of Co-curricular Speech Activities
- 395, Seminar in Special Topics in Speech Communication
- 399, Internship in Communication

### Communication Theory and Rhetoric Area Courses

- 30, Interpersonal Communication I
- 40, Introduction to Public Speaking
- 130, Interpersonal Communication II
- 135, Communication Theory
- 140, Advanced Public Speaking
- 141, Business and Professional Speaking
- 143, Parliamentary Procedures
- 230, Small Group Communication
- 231, Communication in the Organization
- 237, Male/Female Communication
- 240, Persuasive Communication
- 241, Argumentation and Debate
- 242, Theory and Practice of Interviewing
- 243, Communication in American Politics
- 331, Research Methods in Speech Communication
- 332, Intercultural Communication
- 335, Seminar in Applied Communication Research
- 340, Rhetorical Criticism
- 341, History of Public Address I
- 342, History of Public Address II
- 343, The Rhetoric of Protest

# Speech Communication

## Mass Communication Area Courses

- 14, Elementary Radio Station Operations I
- 15, Elementary Radio Station Operations II
- 16, Elementary Radio Station Operations III
- 50, Introduction to Mass Media
- 70, Introduction to Cinema
- 110, Introduction to Radio and Television Broadcasting
- 114, Radio Production I
- 118, Radio and Television Announcing
- 210, Television Production I
- 212, Broadcast Writing and Reporting
- 215, Radio Production II
- 216, Radio News
- 217, Script Writing for Business and Industry
- 219, Promotion, Publicity, and Advertising in Broadcasting
- 271, Film History I
- 272, Film History II
- 273, Basic Film Production
- 310, Television Production II
- 311, Broadcast Management
- 316, Television News
- 350, Mass Communication History and Criticism
- 355, Media Law and Regulation
- 370, Documentary Film

## Theatre Area Courses

- 21, Fundamentals of Acting
- 23, Production Aesthetics
- 80, Introduction to the Theatre
- 124, Stage Movement
- 125, Stagecraft
- 126, Costuming for the Theatre
- 128, Stage Lighting
- 221, Ensemble Acting
- 223, Aesthetics of Theatrical Styles
- 224, Movement for Musical Theatre
- 225, Designing for the Theatre
- 281, Theatre History I
- 282, Theatre History II
- 321, Acting Styles
- 322, Directing for the Theatre
- 323, Theatre Management

## Degree Requirements

**Bachelor of Arts in Speech Communication** Majors must complete a minimum of 36, but not more than 45, hours in speech communication courses. At least 24 of these hours must be taken at UMSL. Every major must complete the requirements for an emphasis area as described below.

### Emphasis Areas

Four emphasis areas are available: General Speech Communication, Communication Theory and Rhetoric, Mass Communication, and Theatre.

### Required Courses for All Majors

**Speech 40**, Introduction to Public Speaking  
**Speech 135**, Communication Theory  
**Speech 199**, Special Projects in Communication (at least three hours) plus **three** additional hours in **each** of the following areas: Communication Theory and Rhetoric; Mass Communication; and Theatre.

**Note** Speech 399 course hours may **not** be counted toward the minimum 36-hour degree requirement.

**Emphasis Area Requirements** In addition to the above required course work, majors must complete the requirements specified below for one of the following emphasis areas:

### I General Speech Communication

In addition to the required courses for all majors, students should take the following:

- a **Three additional hours** in Communication Theory and Rhetoric
- b **Three hours** from the following **Mass Communication** courses:
  - 50, Introduction to Mass Media
  - 70, Introduction to Cinema
  - 110, Introduction to Radio and Television Broadcasting
- c **Three additional hours** in Mass Communication;
- d **One** of the following **Theatre** courses:
  - 23, Production Aesthetics
  - 80, Introduction to the Theatre
- e **Three additional hours** in Theatre
- f In addition, **12-21 additional hours** may be chosen from any area or areas in the speech communication department.

### II Communication Theory and Rhetoric

In addition to the required courses for all majors, students should take the following:

- a **Speech 230**, Small Group Communication
- b **12 additional hours** in Communication Theory and Rhetoric;
- c **One** of the following **Mass Communication** courses:
  - 50, Introduction to Mass Media
  - 70, Introduction to Cinema
  - 110, Introduction to Radio and Television Broadcasting
- d **One** of the following **Theatre** courses:
  - 23, Production Aesthetics
  - 80, Introduction to the Theatre
- e In addition, **6-15 hours** may be chosen from any area or areas in the speech communication department.

### III Mass Communication

In addition to the required courses for all majors, students should take the following:

- a **Speech 50**, Introduction to Mass Media  
**Speech 70**, Introduction to Cinema  
**Speech 110**, Introduction to Radio and Television Broadcasting
- b **Nine additional hours** in Mass Communication;
- c **One** of the following **Theatre** courses:
  - 23, Production Aesthetics
  - 80, Introduction to the Theatre
- d In addition, **6-15 hours** may be chosen from any area or areas in the speech communication department.



# Speech Communication

## IV Theatre

In addition to the required courses for all majors, students should take the following:

- a **Speech 21**, Fundamentals of Acting  
**Speech 23**, Production Aesthetics  
**Speech 80**, Introduction to the Theatre
- b **Nine** additional hours in **Theatre**;
- c **One** of the following **Mass Communication** courses:  
**50**, Introduction to Mass Media  
**70**, Introduction to Cinema  
**110**, Introduction to Radio and Television Broadcasting
- d In addition, **6-15 hours** may be chosen from any area or areas of the speech communication department.

**Bachelor of Arts in Speech Communication with Certification for Secondary Education** In addition to the requirements for the B.A. in speech and general requirements set by the School of Education, students must meet the requirements for **certification** to teach at either of the following secondary grade levels:

### Grades 7-12

The following courses are **required**:

- 21**, Fundamentals of Acting
- 23**, Production Aesthetics
- 50**, Introduction to Mass Media
- 80**, Introduction to the Theatre
- 160**, Fundamentals of Oral Interpretation
- 230**, Small Group Communication
- 241**, Argumentation and Debate
- 322**, Directing for the Theatre
- 392**, Administration of Co-curricular Speech Activities

### Grades 7-9

The following courses are **required**:

- 21**, Fundamentals of Acting
- 23**, Production Aesthetics
- 80**, Introduction to the Theatre
- 160**, Fundamentals of Oral Interpretation
- 241**, Argumentation and Debate
- 392**, Administration of Co-curricular Speech Activities

The General Speech Communication emphasis is recommended for students interested in secondary certification. With this emphasis, students can complete the minimum requirements for the B.A. and certification for grades 7-12 by taking a minimum of 39 hours in speech communication, selected according to departmental requirements. The B.A. and certification for grades 7-9 can be obtained by taking 36 hours in speech communication, selected according to departmental requirements.

Requirements of the School of Education include courses in professional education and English 262, The Curriculum and Methods of Teaching English (same as SEC ED 232).

### Certificate Program in Writing

The speech communication department participates in the Certificate in Writing program. For more information, see the Certificate Program section of this *Bulletin*.

## Departmental Activities and Internships

Co-curricular projects and activities relevant to student interests and vocational plans are sponsored and/or advised by the department (e.g., forensic speaking group, student staff of KWMU, University Players television production club). Internships at radio and television stations, in community agencies, and in a variety of business organizations provide unique opportunities for majors and other selected students to apply their communication studies.

## Minors in Speech Communication

Students with majors other than speech communication may select from four minors to complement their academic and career goals.

**The following conditions apply to all minors:**

### Minors in Speech Communication

Students with majors other than speech communication may select from four minors to complement their academic and career goals.

**The following conditions apply to all minors:**

Credit hours in Speech 199, Special Projects in Communication, and Speech 395, Seminar in Special Topics in Speech Communication, may be substituted for credit hours listed below with written permission of the speech communication department chairperson.

Credit hours in Speech 399, Internship in Communication, may not be counted toward the minor.

At least nine of the 18 hours required for the minor must be taken at UMSL.

A minimum GPA of 2.0 is required in the minor. No more than three hours of credit for the minor may be taken on a satisfactory/unsatisfactory basis.

### 1 Requirements for the minor in General Speech Communication are as follows:

- a **Speech 40**, Introduction to Public Speaking
- b **One** of the following **Mass Communication** courses:  
**50**, Introduction to Mass Media  
**70**, Introduction to Cinema  
**110**, Introduction to Radio and Television Broadcasting
- c **One** of the following **Theatre** courses:  
**21**, Fundamentals of Acting  
**23**, Production Aesthetics  
**80**, Introduction to the Theatre
- d In addition, **three credit hours** may be chosen from speech courses at the 100 level with **6** additional credit hours in speech at the 200 level or above.

## Speech Communication

### 2 Requirements for a minor in Communication Theory and Rhetoric are as follows:

- a **Speech 40**, Introduction to Public Speaking  
**Speech 135**, Communication Theory
- b **One** of the following **Communication Theory and Rhetoric** courses:
  - 30**, Interpersonal Communication I
  - 140**, Advanced Public Speaking
  - 141**, Business and Professional Speaking
- c In addition, **nine hours** may be chosen from courses in Communication Theory and Rhetoric at the 200 level or above.

### 3 Requirements for a minor in Mass Communication are as follows:

- a **Speech 50**, Introduction to Mass Media  
**Speech 110**, Introduction to Radio and Television Broadcasting
- b **One** of the following **Mass Communication** courses:
  - 70**, Introduction to Cinema
  - 350**, Mass Communication History and Criticism
- c **Nine additional hours** in Mass Communication

### 4 Requirements for a minor in Theatre are as follows:

- a **Speech 21**, Fundamentals of Acting  
**Speech 23**, Production Aesthetics  
**Speech 80**, Introduction to the Theatre
- b In addition, **six hours** may be chosen from Theatre courses at the 100 level with **three** additional hours in Theatre at the 200 level or above.

## Career Outlook

In addition to preparing students for graduate studies in speech, theatre, and mass media, the department's curriculum provides a pre-professional preparation. Few classified ads read "Communicator Wanted"; however, many career areas require the knowledge and skills of speech communication, and the qualifications of the program's majors have been recognized and rewarded. Graduates are employed in professional positions in theatre, broadcasting, public relations, and in a variety of management positions.

## Interdisciplinary Studies

The College of Arts and Sciences offers a number of interdisciplinary programs leading to either a minor or a certificate in a designated area of study. There are also a number of courses which are designated as interdisciplinary and which may or may not be part of a particular interdisciplinary minor or certificate program.

These interdisciplinary courses and programs bring together the resources of two or more subject areas in order to focus on topics which benefit from being studied from the point of view of more than one discipline. In some cases, faculty from several departments teach as a team, giving students the opportunity to experience faculty dialogue in a cross-disciplinary fashion.

These courses are listed and described in the companion volume to this book, *The UMSL Bulletin: The Description of Courses*.

### Minor in Black Studies

This minor is designed to provide a focus for new and existing courses in the area of black and African studies. A faculty member from one of the Departments of Art, Sociology, or History is designated as coordinator to all students planning this minor and transferring other courses for appropriate credit.

#### Requirements

- 1 Students must select from the designated courses in each of the three disciplines of art, sociology, and history.
- 2 Special topics courses relevant to Black Studies may be included in the minor when approved by the coordinator of Black Studies.
- 3 Candidates must have a cumulative grade point average of 2.0 or better in the minor. Courses taken on satisfactory/unsatisfactory may not be applied to the minor.
- 4 Courses applied to the minor may not be counted for a major.
- 5 Required Courses:

**Interdisciplinary 40**, The Black World

A minimum of **two** courses from the following:

- Anthropology 124**, Cultures of Africa
- Art 17**, African Art
- English 70**, Afro-American Literature
- History 81**, African Civilization to 1800
- History 82**, African Civilization since 1800
- History 120**, Black History in the U.S.
- Music 6**, Introduction to Afro-American Arts
- Sociology 105**, Group Prejudice and Minority Identity

A minimum of **three** courses from the following:

- History 281**, West Africa since 1800
- History 262**, Crisis in Southern Africa
- Political Science 232**, Ethnic & Racial Politics
- Sociology 360**, Sociology of Minority Groups

### Minor in Classical Studies

The Minor in Classical Studies is an interdisciplinary course of studies intended to encourage undergraduates in various disciplines to come to a fuller awareness of the cultures of ancient Greece and Rome and of the classical tradition that underlies much of modern Western civilization.

In addition to appealing to any student's curiosity about the early stages of society in the West, the minor provides an especially valuable supplement to those who are majoring in many liberal arts areas including history, literature, philosophy, modern languages and the fine arts.

The Classical World (Interdisciplinary 10), the only required course in the minor, is an introductory survey focusing on central issues and themes and major works from the entire period.

Students pursuing the minor will acquire a foundation in either Greek or Latin. They may choose to use either sequence to fulfill the foreign language requirement in the College of Arts and Sciences.

#### Requirements

**Interdisciplinary 10**, The Classical World

**Latin 1**, Elementary Latin I

**Latin 2**, Elementary Latin II

or

**Ancient Greek 1**, Elementary Ancient Greek I

**Ancient Greek 2**, Elementary Ancient Greek II

Two of the following (6 credit hours)

**Ancient Greek 101**, Intermediate Ancient Greek

**Art 215**, Classical Art and Archaeology of Greece and Rome

**English 120**, Classical Literature in Translation

**History 130**, Ancient Civilization

**History 330b**, The Ancient World: History of Greece to the End of the Hellenistic Period

**History 330c**, The Ancient World: Rome

**Latin 101**, Intermediate Latin

**Philosophy 101**, Ancient Philosophy

**Philosophy 201**, Plato

**Philosophy 202**, Aristotle

### Minor in Legal Studies

A minor in Legal Studies requires 18 hours of course work.

#### Requirements

- 1 **Interdisciplinary 20**, Foundations of Law: An Introduction to Legal Studies
- 2 At least three courses (nine credit hours) numbered at the 200 level and above.
- 3 Two courses (six credit hours) selected at any level.
- 4 No more than two courses from a single discipline may be included in the minor.
- 5 The following courses may be used in fulfilling the requirements:

**Interdisciplinary 20**, Foundations of Law: An Introduction to Legal Studies

## Interdisciplinary Studies

and the following **administration of justice** courses:

- 75**, Crime and Punishment
- 101**, Criminal Justice Processes and Institutions
- 201**, The Criminal Justice System: Conflicting Perspectives I
- 202**, The Criminal Justice System: Conflicting Perspectives II
- 227**, Urban Law: Poverty and the Justice System
- 325**, Criminal Law in Action

and any of these courses.

- History 311**, Topics in American Constitutional History
- History 330f**, Medieval England
- Philosophy 287**, Philosophy of Law
- Political Science 20**, Foundations of Law: An Introduction to Legal Studies
- Political Science 121**, Civil Liberties
- Political Science 129**, Women and the Law
- Political Science 225**, Jurisprudence
- Political Science 227**, Urban Law: Poverty and the Justice System
- Political Science 320**, Introduction to American Constitutional Law
- Political Science 327**, Urban Justice Systems
- Political Science 328**, The Federal Judicial System: Politics, Process and Behavior
- Sociology 278**, Sociology of Law

Candidates must have a cumulative grade point average of 2.0 or better in the minor. Courses taken on pass-fail may not be applied to the minor.

### Minor in Photographic Studies

A minor in Photographic Studies requires 18 hours of course work and enables a student to concentrate courses in, and related to, photography into an interdisciplinary minor. Simultaneously, a student must complete the requirements in a chosen major field. A faculty member of the Interdisciplinary Photographic Studies Committee will act as adviser to all students in the minor and will consult with the faculty adviser in the student's major to plan appropriate credits. Any UMSL undergraduate is eligible for the minor.

This interdisciplinary minor is the only one in the country at present and should be of special interest to those considering a career in the arts, history, science, business, advertising, or in photography itself.

#### Requirements

I The following courses are required:

- Interdisciplinary 65 (Art 65), **Photography and Society**
- Art 60**, Photography I (Lab)
- Art 160**, Photography II (Lab)
- Art 265**, History of Photography or **History 168**, Photohistory
- Interdisciplinary 390**, Independent Studies in Photographic Studies

II At least **one three-hour course** selected from the following departmental offerings: (New courses will be reviewed periodically for inclusion.)

- Art 5**, Introduction to Art
- Art 265**, History of Photography
- Art 274**, Printmaking: Photo Lithography
- Art 360**, Advanced Photography
- Biology 360**, Techniques in Electron Microscopy
- English 115**, Feature Writing
- English 116**, News Writing

- History 168**, Photohistory
- Philosophy 274**, Philosophy of Art
- Physics 172**, Light and Color
- Physics 173**, Applications of Light and Color
- Psychology 213**, Principles of Perception
- Psychology 355**, Psychology of Perception
- Speech 50**, Introduction to Mass Media
- Speech 70**, Introduction to Cinema
- Speech 210**, Television Production
- Interdisciplinary 365**, Seminar in Photographic Studies (Advanced Special Topics— to be determined)

### Minor in Studies in Religions

A minor in Studies in Religions requires the completion of 18 hours with a grade of C or better selected from the group of courses listed below. Included in this selection must be Interdisciplinary 70, Introduction to the Study of Religion. Courses must be chosen from two or more departments (interdisciplinary offerings excluded), and the program must include two or more courses which focus on different, major religious traditions. (Courses which fulfill this requirement are marked with an asterisk (\*) in the list below). In addition, students are encouraged to broaden their understanding of religions and religious experience by enrolling in several courses in which these subjects are studied in philosophical or cultural contexts. Before completing 12 hours in this minor, the student must obtain the approval of the coordinator of studies in religions.

#### Requirements

- Interdisciplinary 70**, Introduction to the Study of Religion
- Anthropology 144**, Religion, Magic and Science
- \*Art 225**, Medieval Art
- \*Art 325**, Early Christian Art and Archaeology
- \*Art 326**, Monasteries, Cathedrals, and Preaching Churches
- \*English 123**, Jewish Literature
- \*English 124**, Literature of the New Testament
- \*English 125**, Literature of the Old Testament
- \*History 144**, Christianity: Jesus to Martin Luther
- \*History 252**, The World of Islam
- \*History 330a**, The Ancient World: Israel
- \*History 330d**, History of the Church: Early Christianity
- \*History 330e**, History of the Church: The Middle Ages
- Music 103**, Music in Religion
- Philosophy 85**, Philosophy of Religion
- Philosophy 102**, Medieval Philosophy
- Philosophy 120**, Asian Philosophy
- \*Philosophy 124**, Philosophy of Judaism
- Philosophy 285**, Problems in Philosophical Theology
- Political Science 165**, American Political Thought
- Political Science 261**, Ancient and Medieval Political Thought
- Sociology 264**, The Sociology of Religion



# Interdisciplinary Studies

## Minor in Urban Studies

A minor in Urban Studies includes 18 hours of course work.

### Requirements

- 1 **Interdisciplinary 99**, The City (three credit hours)
- 2 At least three courses (nine credit hours) at the 200 level or above, selected from the list below.
- 3 Two additional courses (six credit hours) at any level, selected from the list below.

### The following restrictions should be noted:

- a. No more than two courses (six credit hours) from a single discipline may be included in the minor.
- b. Except for Interdisciplinary 99, The City, courses applied to the minor may not be counted for a major.
- c. Special topics courses relevant to urban studies may be included in the minor when approved in advance by the coordinator of the urban studies minor.
- d. Candidates must have a cumulative grade point average of 2.0 or better in the minor. Courses taken on pass-fail may not be applied to the minor.

### Courses Applicable to the Minor

- Administration of Justice 227**, Urban Law: Poverty and the Justice System  
**Administration of Justice 260**, Police-Community Relations  
**Administration of Justice 310**, Community Approaches to the Prevention and Control of Crime and Delinquency  
**Anthropology 142**, The Culture of Cities  
**Art 259**, Modern Architecture  
**Economics 270**, Urban and Regional Economics  
**Economics 301**, The Urban Environment and Planning  
**Economics 317**, Public Finance: State and Local  
**Geography 210**, Urban Geography  
**Geography 211**, Location Theory  
**History 300**, Selected Topics in History (when Urban or St. Louis history)  
**Interdisciplinary 99**, The City  
**Political Science 135**, Introduction to Urban Politics  
**Political Science 227**, Urban Law: Poverty and the Justice System  
**Political Science 245**, Urban Administration  
**Political Science 327**, Urban Justice System  
**Political Science 346**, Urban Planning and Politics  
**Psychology 235**, Community Psychology  
**Psychology 256**, Environmental Psychology  
**Sociology 40**, Urban Problems  
**Sociology 202**, Urban Sociology  
**Sociology 344**, Problems of the Urban Community

## Certificate Programs

Certificate programs are offered in Women's Studies, Writing, and East Asian, Latin American, European, and International Studies. These programs, which usually combine course offerings from different departments, make it possible for students to earn the equivalent of a minor in a given area, in addition to their major.

### Women's Studies Certificate

#### Faculty

**Susan M. Hartmann**, Professor of History  
Ph.D., University of Missouri-Columbia

**Marcia Dalbey**, Associate Professor of English  
Ph.D., University of Illinois

**Zuleyma Halpin**, Associate Professor of Biology  
Ph.D., University of California-Berkeley

**Stephanie Ross**, Associate Professor of Philosophy  
Ph.D., Harvard University

**Jayne Stake**, Associate Professor of Psychology  
Ph.D., Arizona State University

**Suzanna Rose**, Assistant Professor of Psychology  
Ph.D., University of Pittsburgh

**Victoria Sork**, Coordinator; Assistant Professor of Biology  
Ph.D., University of Michigan

**Lauren Lepow**, Lecturer  
Ph.D., University of Connecticut

**Nanora Sweet**, Lecturer  
M.A. University of Missouri-Columbia

The Women's Studies Program at UMSL is rooted in the recognition that traditional education ignores the experiences and contributions of women in virtually all areas of society. The program draws upon feminist perspectives to compensate for omissions in existing knowledge, to challenge old models of thinking about women, and to create new ways of studying human experience.

The Women's Studies Program offers a certificate which is similar to a minor, meant to supplement a student's traditional academic major. Covering a number of academic disciplines, it provides courses which look specifically at women's lives, roles, and contributions. The program explores similarities and differences among women in various times and cultures.

The faculty and students in this program believe in cooperative education which promotes the exchange of knowledge among women and men of different classes, races and social conditions. We strive to help people reassess women's roles in society so that they may grow personally and participate actively in social change.

#### Requirements

A student may receive a certificate in women's studies by completing a total of 18 hours in women's studies courses, including:

- 1 Interdisciplinary 50**, Women
- 2** Four additional courses. These shall be distributed among at least **two** of the following areas: Social Sciences, Humanities, and Natural Sciences. They should also be

distributed among at least **three** academic departments. May not be taken on a satisfactory/unsatisfactory basis.

**3** An independent study (three hours), to be taken in the junior or senior year. Students will write a research paper on some aspect of women's studies. No more than three hours may be taken on a satisfactory/unsatisfactory basis.

Candidates for the certificate should present their proposed programs for approval by women's studies advisers no later than the beginning of their senior year.

Students interested in the program should contact the coordinator of the program or any member of the women's studies faculty.

Currently offered courses which meet the requirements for a Certificate in Women's Studies are:

**Interdisciplinary 50**, Women  
**Interdisciplinary 150**, Topics in Women's Studies  
**Art 176**, Women and the Visual Arts  
**Biology 140**, (Psychology 140) Female Sexuality  
**English 13**, Topics in Literature (when appropriate topic)  
**English 280**, Topics in Women and Literature  
**History 101**, History of Women in Comparative Cultures  
**History 320**, History of Feminism in Western Society  
**History 321**, History of Women in the United States  
**Music 108**, Women in Music  
**Philosophy 153**, Philosophy and Feminism  
**Political Science 129**, Women and the Law  
**Psychology 230**, Psychology of Women

### Writing Certificate

The Writing Certificate provides an opportunity for students to obtain a focused specialty in writing in addition to their major. A student may earn a certificate in writing by completing a total of 18 hours in writing courses, chosen from the following:

**English 50**, Short Story Writing  
**English 51**, Poetry Writing  
**English 115**, Feature Writing  
**English 116**, News Writing  
**English 160**, Advanced Expository Writing  
**English 161**, Technical Writing  
**English 162**, Business Writing  
**English 217**, Professional Editing  
**English 230**, Writing Literary Criticism  
**English 251**, Advanced Poetry Writing  
**English 252**, Advanced Fiction Writing  
**English 300**, Writing in the Professions  
**English 305**, Writing for Teachers  
**Speech 212**, Writing for Radio and Television

**Required: English 295**, Independent Writing Project. Students serve a supervised writing internship or work with the instructor to complete an extensive writing project.  
**English 261**, Advanced Business and Technical Writing, may be substituted for English 295 as the required final course for students who wish to do their final projects in business or technical writing. Courses taken to fulfill requirements for the Writing Certificate may not be taken on a satisfactory/unsatisfactory basis.

## Certificate Programs

### Center for International Studies Certificates

Through the Center for International Studies, the College offers certificate programs in East Asian, Latin American, European, and International Studies. In the junior or senior year, students seeking certificates must take an independent study course (three hours) in which a research paper will be written focusing upon some aspect of the particular field or on one of the fields offered in the program.

Interested students should petition for one of these certificates through the Center for International Studies by the first semester of the senior year. For further information, contact the Center at 553-5753.

#### Requirements for Each Program

##### East Asian Studies Certificate

- 1 First- and second-year Chinese, Japanese, or other appropriate Asian language (20 hours taken in four semesters). Chinese and Japanese courses are available at Washington University for UMSL students.
- 2 History 61 and 62, East Asian Civilization
- 3 **One** course in **three** of the following four areas, a total of nine hours:

##### Area 1: Music

9, Non-Western Music

##### Area 2: Philosophy

120, Asian Philosophy

##### Area 3: Political Science

255, Asian Comparative Politics  
 \*359, Studies in Comparative Politics  
 \*388, Studies in International Relations

\*Note Students should take Political Science 359 or 388 only when the specific topic is appropriate.

##### Area 4: History

261, Modern Japan: 1850 to Present  
 262, Modern China: 1800 to Present  
 293, Senior Seminar

##### European Studies Certificate

- 1 Four semesters of college work or the equivalent in a modern European foreign language.
- 2 History 32, Topics in European Civilization: 1715 to the Present
- 3 **One** course each from at least **four** of the following eight areas, a total of 12 hours. Students should consult advisers at the Center to determine how these courses can best be arranged to meet their interests.

##### Area 1: Art

235, Renaissance Art  
 245, Baroque Art  
 255, Modern Art  
 335, Artists and Theories of the Renaissance

345, Age of Grandeur: Perspectives in Seventeenth- and Eighteenth-Century Art

356, Nineteenth-Century Art

357, Twentieth-Century Art

##### Area 2: Economics

238, The World Economies of Today

239, The Soviet Economy

242, European Economic Development

##### Area 3: English

127, Survey of European Literature from 1650 to the Second World War

128, The Contemporary World in Literature

132, English Literature II

310, Continental Fiction

346, Restoration and Eighteenth-Century Drama

364, The Eighteenth-Century English Novel

365, The Nineteenth-Century English Novel

372, The Later Nineteenth Century

383, Modern British Fiction

##### Area 4: History

31, Topics in European Civilization: Emergence of Western Europe to 1715

331a, The Age of the Renaissance

331b, The Age of Reformation

332d, The Rise of the Modern British State

332e, Europe from the French Revolution to World War I, 1789-1914

333a, Contemporary France: Since 1870

333b, Germany in the Modern Age

333c, History of Russia From 1917-Present

333d, Europe in the Twentieth Century

333e, Contemporary Europe, 1939-Present

##### Area 5: Modern Foreign Languages

###### FRENCH

110, Modern French Literature in Translation

150, European Literature in Translation: Special Topics

211, Contemporary French Civilization

281, French Literature II: Nineteenth and Twentieth Centuries

341, Seventeenth-Century French Theatre

342, Seventeenth-Century French Prose and Poetry

353, Eighteenth-Century French Literature

354, Eighteenth-Century French Theatre and Novel

362, Nineteenth-Century French Novel

371, Twentieth-Century French Novel

375, Modern French Theatre

###### GERMAN

110, Masterpieces of German Literature in Translation

150, European Literature in Translation: Special Topics

201, Masterpieces of German Literature

202, The German *Novelle* and Drama

210, German Culture and Civilization

315, German Classicism and Romanticism

320, German Realism and Naturalism

345, Modern German Literature

397, Survey of German Literature Part I

398, Survey of German Literature Part II

###### SPANISH

110, Spanish Literature in Translation

150, European Literature in Translation: Special Topics

310, Spanish Literature from 1898 to 1939

315, Spanish Literature from 1939 to the Present

320, Realism and Naturalism in the Nineteenth-Century Spanish Novel

321, Poetry and Drama of the Nineteenth Century

325, Poetry and Drama of the Golden Age

## Certificate Programs

### Area 6: Music

- 322, Music of the Renaissance
- 323, Music of the Baroque
- 324, Music of the Classic Period
- 325, Music of the Romantic Period

### Area 7: Philosophy

- 103, Early Modern Philosophy
- 104, Kant and Nineteenth-Century Philosophy
- 105, Twentieth-Century Philosophy
- 205, The Rationalists
- 206, The British Empiricists

### Area 8: Political Science

- 251, Comparative Politics of Western Europe
- 256, Soviet Political Systems
- 284, European International Relations
- \*351, Comparative Public Policy and Administration
- \*359, Studies in Comparative Politics
- \*388, Studies in International Relations

\*Note Students should take Political Science 351, 359, or 388 only when the topic is appropriately European.

### Latin American Studies Certificate

- 1 Thirteen credit hours or the equivalent in Spanish.
- 2 Either History 71, Latin American Civilization, or Spanish 211, Hispanic Culture and Civilization: Spanish America.
- 3 One course from at least three of the following areas, a total of 12 hours:

#### Area 1: Anthropology

- 121, Modern Aztec and Maya
- 134, The Inca, Aztec and Maya

#### Area 2: Economics

- 243, Latin American Economic Development

#### Area 3: History

- 271, History of Latin America: To 1808
- 272, History of Latin America: Since 1808

#### Area 4: Political Science

- 253, Political Systems of South America
- 254, Political Systems of Mexico, Central America and the Caribbean
- \*359, Studies in Comparative Politics

\*Note Students should take Political Science 359 only when the topic is appropriate to Latin America.

#### Area 5: Spanish

- 111, Spanish-American Literature in Translation
- 211, Hispanic Culture and Civilization: Spanish America
- 281, Introduction to Hispanic Literature: Spanish America
- 340, Spanish-American Literature of the Nineteenth Century
- 341, Modernismo
- 345, Spanish-American Literature of the Twentieth Century
- 351, Spanish-American Fiction in the Twentieth Century
- 360, Spanish-American Poetry from Modernismo to the Present

### International Studies Certificate

- 1 Satisfactory completion of the language requirements for the degree program in which the student is enrolled.
- 2 Political Science 180, World Politics
- 3 One course from at least three of the following seven areas, a total of 12 hours:

#### Area 1: Anthropology

- 201, Comparative Economic Behavior
- 202, Politics, Symbolism and Culture

#### Area 2: Biology

- 120, Environmental Biology

#### Area 3: Business Administration

- 380, International Business

#### Area 4: Economics

- 230, International Economic Analysis
- 238, The World Economies of Today
- 331, International Economic Analysis: Finance

#### Area 5: Geography

- 102, World Regions

#### Area 6: History

- 112, United States Diplomatic History
- 332e, Europe from the French Revolution to World War I, 1789-1914
- 333d, Europe in the Twentieth Century

#### Area 7: Political Science

- 80, Global Issues
- 282, United States Foreign Policy
- 285, International Institutions and Global Problem-Solving
- 286, Studies in War and Peace
- 289, Middle Eastern Politics
- 381, Foreign Policy Decision-Making
- 385, International Law
- 388, Studies in International Relations



## Preprofessional Programs

Although UMSL does not offer specific preprofessional majors in engineering, dentistry, journalism, law, medicine, or pharmacy, students may develop satisfactory preprofessional study programs from UMSL's academic offerings. With early and careful advising, students may develop a two-year study program in preparation for transfer into a professional program in the junior year, or they may select a major field of study and related area courses which provide strong undergraduate preparation for graduate professional study.

Students should seek preprofessional faculty advisers in their interest area early in their academic careers to ensure development of sound, comprehensive study programs which fulfill the admission requirements of the professional program to which they wish to apply.

The following information on preprofessional study at UMSL is provided to give students minimal guidelines and assistance in planning a program.

### Pre-engineering

The pre-engineering program provides the student with a solid scientific base in mathematics, chemistry, physics, and communications. Jointly prepared transfer guides to UMC, UMR, Washington University, and SIU-Edwardsville are available from the pre-engineering adviser or the Admissions Office. Curricula for all the engineering fields are listed in detail therein. Usually, transfer can be effected without loss of credit and with full standing as the curricula have been approved by the participating engineering schools and departments.

Students also may remain at UMSL to pursue B.S. degrees in pure science or in an applied area of physics, mathematics, or chemistry. The program's built-in flexibility allows students to explore various areas in engineering and applied science in order to discover the most appropriate and rewarding directions in which to aim their talents.

### General Education Requirements

In addition to general admission requirements, prospective students must take a mathematics placement test, given at UMSL, the semester before enrollment.

Although there is no required pattern of high-school units for admission to the program, students are urged to complete **at least three** units of mathematics, including units in algebra (excluding general mathematics) and trigonometry. Calculus, if available, is also recommended.

The following courses **are required** in the first two years for most of the engineering curricula that are part of the pre-engineering program.

Chemistry:

**Chemistry 11**, Introductory Chemistry I

English:

**English 10**, Freshman Composition

Computer Science:

**Computer Science 122**, Computers and Programming

Engineering:

**Engineering 30**, Engineering Graphics

**Engineering 85**, Statics and Elementary Strength of Materials

**Engineering 185**, Introduction to Dynamics

Humanities and Social Sciences:

**Twelve** hours of **electives**.

Mathematics:

**Math 80**, Analytic Geometry and Calculus I

**Math 175**, Analytic Geometry and Calculus II

**Math 201**, Analytic Geometry and Calculus III

**Math 202**, Linear Algebra and Differential Equations

Physics:

**Physics 111**, Physics: Mechanics and Heat

**Physics 112**, Physics: Electricity, Magnetism, and Optics

**Physics 124**, Circuit Analysis I

See the transfer guides for specific requirements at each of the participating universities.

### Upper-Division Students

Students should be aware that there is a cooperative program between Rolla and St. Louis area employers which allows the student to alternate periods of study with periods of work in industry or business. Students may be interested in knowing there are about 50 St. Louis-area industries now cooperating in this program. Normally the cooperative program involves one semester of college study at Rolla, followed by one semester of work.

Specific inquiries about the pre-engineering program should be made to: Pre-engineering Program, 225 Benton, telephone 553-5931.

## Prejournalism

Students wishing to pursue a journalism degree should review the entrance requirements of the schools they would like to attend for information on suggested prejournalism courses of study.

Students seeking a journalism degree from the University of Missouri must complete their junior and senior years at the School of Journalism, University of Missouri-Columbia. For admission, students must present to the UMC School of Journalism 60 acceptable credit hours with a cumulative grade point average of 3.0 or higher at the University of Missouri or another accredited two- or four-year institution.

### Required Courses

The following studies are required for admission to the School of Journalism:

**1 English Composition:** Six credit hours. English 10, Freshman Composition, and English 160, Advanced Expository Writing, satisfy the requirement with a grade of B or better in English 160.

## Preprofessional Programs

**2 Foreign Language:** Thirteen credit hours are required unless the student has completed four or more high-school units in a single foreign language.

**3 Behavioral, Biological, Physical and Mathematical Science:** Fourteen hours from four of six areas including anthropology, psychology, sociology, biological, physical, and mathematical science.

The fourteen hours must include at least one course with a lab (minimum four hours credit).

**4 Social Science:** Nine hours in three of three areas including economics, history, and political science.

**5 Humanistic Studies:** Eight hours in three of six areas including appreciation of history of art or music; foreign civilizations; classics; literature; philosophy; speech and dramatic art; humanities sequence.

Non-transferable courses at the School of Journalism are basic military science, basic physical education, typing or shorthand, journalism or communication, and no more than three hours each of applied or performance music, dance, drama, or studio art.

**Recommended**, but not required, are courses in American history, general sociology, general psychology, introductory philosophy, principles of marketing, elementary accounting, statistics, and general anthropology.

For advisement and information, contact the Advising Office, College of Arts and Sciences, 303 Lucas, telephone 553-5300.

### Prelaw

A "prelaw curriculum" is a myth, a mistaken notion based on an inexact analogy to premedical programs. Law schools recommend a broadly based undergraduate degree program because they want students who can think, read and write, and have some understanding of the human experience.

While no particular major is recommended, certain areas of study are. English language and literature courses are virtually indispensable, as is training in critical analysis and logical reasoning. An awareness of the institutional processes of government obtained through study in political science is needed. Since law is inseparable from historical experience, an acquaintance with American history is important. Students should acquire a knowledge of macro and microeconomics; statistics, accounting and computer science are of value. Law courses are **not** recommended, they should be taken in law school, not in the undergraduate program.

The University of Missouri has law schools at Columbia and Kansas City, but not on this campus. However, students will find everything needed in planning an undergraduate program, preparation for the LSAT and applying to law school in the office of the prelaw adviser, 303 Lucas, 553-5300. Students should contact the prelaw adviser early in their undergraduate career.

## Premedical Sciences

Students wishing to enter medical, dental, or veterinary medicine schools should pursue the B.A. or B.S. degrees with majors in the disciplines of their choice, but they should take whatever additional courses may be necessary for admission. Pre-veterinary students will have to obtain certain animal sciences courses not offered at UMSL.

Since professional school admission requirements vary, students are urged to consult the catalogs of the schools to which they intend to apply. Updated information may be found in *Medical School Admission Requirements* (United States and Canada) for the current year, available from the Association of American Medical Colleges, One Dupont Circle, N.W., Washington, D.C. 20036. The dean's office has a copy available for student use within the office.

### Suggested Courses

Many medical schools recommend the following undergraduate courses:

**Biology:** **Biology 10**, Introductory Biology; **Biology 224**, Genetics; and additional courses in developmental biology and/or physiology.

**Chemistry:** **Chemistry 11**, Introductory Chemistry I; **Chemistry 12**, Introductory Chemistry II; **Chemistry 261**, Structural Organic Chemistry; **Chemistry 262**, Organic Reactions; **Chemistry 263**, Techniques of Organic Chemistry; and additional courses in organic chemistry and quantitative analysis.

**Mathematics:** Students should take courses at least through calculus, as appropriate for the major degree.

**Physics:** Eight credit hours or as appropriate for the degree chosen.

Since students are not confirmed for admission to professional schools until the science requirements for admission are fulfilled, students should meet the science requirements before the end of the junior year. To complete these requirements in time, premedical students should take Chemistry 11 and 12, Introductory Chemistry I and II, during the freshman year.

Students also should take the required national standardized examination before or during the junior year; the Medical College Admission Test for premed students; the Veterinary Medical Aptitude Test for prevet students; the Dental Aptitude Test for pre-dental students; and the Optometry College Admission Test for preoptometry students.

Each year the number of applicants to health profession schools greatly exceeds the number of available places. Students, therefore, are encouraged to have alternative plans should they not gain entrance. Pharmacy, nursing, and laboratory technology may be considered as alternative fields.

For further information, testing dates, or premedical advising, contact the premedical adviser, 303 Lucas Hall, telephone 553-5008.

# Preprofessional Programs

## Prepharmacy

Admission to a school of pharmacy usually requires one to two years of college work in specified areas. Most colleges of pharmacy recommend the 2-3 plan which includes two years of college work followed by three years of professional courses in the college of pharmacy. Since entrance requirements vary, students should consult the catalog of the college to which they intend to apply.

**Two-Year Prepharmacy Course Sequence** A typical two-year sequence for prepharmacy students which meets the admission requirement of the School of Pharmacy at the University of Missouri-Kansas City and also those of the St. Louis College of Pharmacy is as follows:

### Freshman Year

#### First Semester (16 Hours)

**Chemistry 11**, Introductory Chemistry I  
**English 10**, Freshman Composition  
**Mathematics 40**, Pre-Calculus Mathematics  
**Elective\***: One three-hour course

#### Second Semester (16 hours)

**Biology 10**, Introductory Biology  
**Chemistry 12**, Introductory Chemistry II  
**Literature**: Any three-hour course  
**Elective\***: One three-hour course

### Sophomore Year

#### First Semester (15 hours)

**Biology**: One three-hour biology elective  
**Chemistry 261**, Structural Organic Chemistry  
**Literature**: Any three-hour course  
**Physics 11**, Basic Physics  
**Elective\***: One three-hour course

#### Second Semester (14 hours)

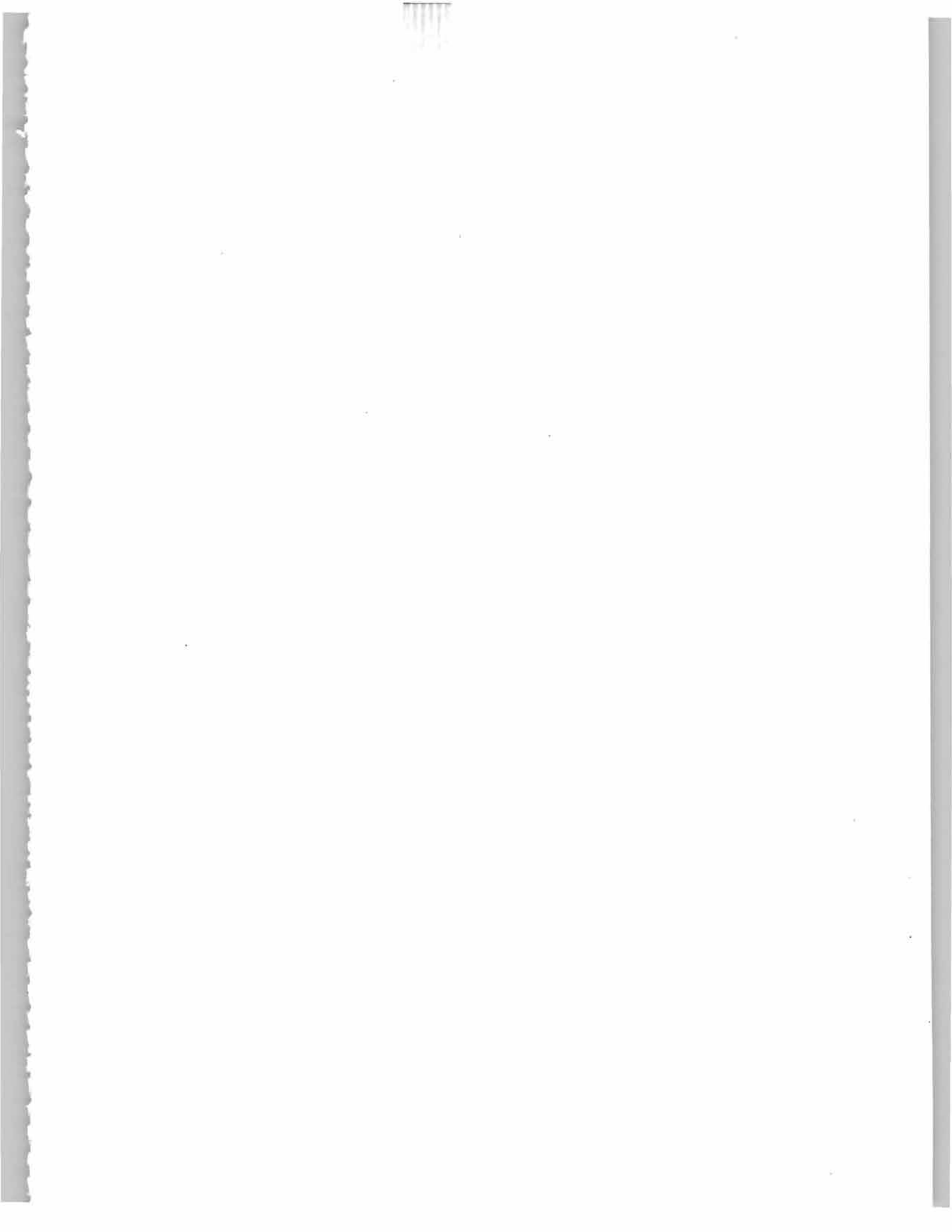
**Biology**: One three-hour biology elective  
**Chemistry 262**, Organic Reactions  
**Chemistry 263**, Techniques of Organic Chemistry  
**Physics 12**, Basic Physics  
**Elective\***: One three-hour course

\*Courses in statistics, psychology, speech, economics, and accounting are most often recommended or required.

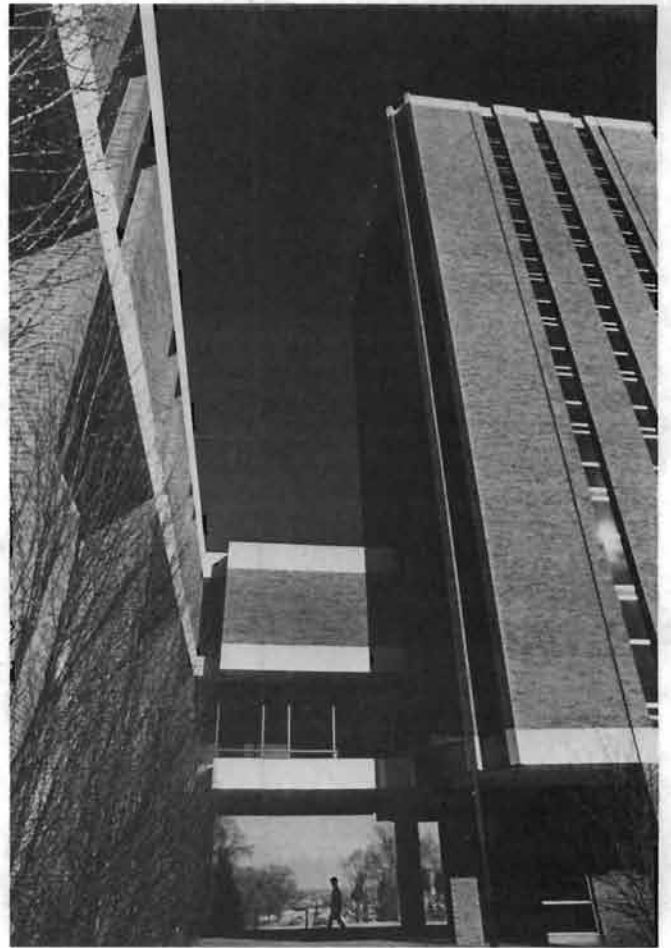
For additional information and prepharmacy advising, contact the chemistry department, 438 Benton Hall, telephone 553-5311.

## Preoptometry

The University opened the School of Optometry in September of 1980. The School, housed on the South Campus Complex, is the first health-related professional school to be introduced on the St. Louis campus of the University of Missouri. Undergraduate students interested in pursuing a career in this field should tailor their course selections to fulfill the admissions requirements of the School. For further information and advising, contact the Office of Student Affairs at the School of Optometry.







# School of Business Administration



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# Business Administration

## Faculty

**Donald H. Driemeier**, Dean; Associate Professor\*  
D.B.A., Washington University

**David P. Gustafson**, Associate Dean; Associate Professor\*  
Ph.D., Stanford University

**Albert P. Ameiss**, Professor\*  
Ph.D., St. Louis University

**Howard B. Baltz**, Professor\*  
Ph.D., Oklahoma State University

**Nicholas J. DiMarco**, Professor\*  
Ph.D., Case Western Reserve University

**Sioma Kagan**, Professor Emeritus\*  
Diplom-Ingenieur, Ph.D., Columbia University

**Frederick E. May**, Professor\*  
Ph.D., University of Michigan

**Robert S. Stich**, Professor\*  
Ph.D., New York University

**Fred J. Thumin**, Professor\*  
Ph.D., Washington University

**John J. Anderson**, C.P.A., C.M.A., Associate Professor\*  
Ph.D., University of Wisconsin-Madison

**James A. Breaugh**, Associate Professor\*; Coordinator in Management  
Ph.D., Ohio State University

**Dennis L. Dossett**, Associate Professor\*  
Ph.D., University of Washington

**Richard E. Homans**, Associate Professor\*; Coordinator in Marketing  
Ph.D., University of Houston

**Charles R. Kuehl**, Associate Professor\*; Director of Graduate Studies in Business  
Ph.D., University of Iowa

**Donald R. Kummer**, Associate Professor\*  
Ph.D., University of Oregon

**Robert M. Nauss**, Associate Professor\*  
Ph.D., University of California-Los Angeles

**R. Frank Page, C.P.A.**, Associate Professor\*  
Ph.D., University of Illinois

**Robert A. Schuchardt**, Associate Professor\*  
D.B.A., Washington University

**L. Douglas Smith**, Associate Professor\*; Director, Center for Business and Industrial Studies  
Ph.D., University of Minnesota

**James P. Tushaus**, Associate Professor\*  
Ph.D., University of Illinois

**George C. Witteried**, Associate Professor\*  
M.B.A., J.D., Northwestern University

**Nasser Arshadi**, Assistant Professor\*  
Ph.D., University of Nebraska

**Jack D. Becker**, Assistant Professor\*  
Ph.D., Washington University

**Phillip J. Decker**, Assistant Professor\*  
Ph.D., Ohio State University

**Peter H. DePaulo**, Assistant Professor\*  
Ph.D., Bryn Mawr College

**David R. Ganz**, Assistant Professor; Coordinator in Accounting  
M.S. in C., St. Louis University

**Joseph P. Giljum**, C.P.A., Assistant Professor  
L.L.M., New York University

**Marius A. Janson**, Assistant Professor\*  
Ph.D., University of Minnesota

**John N. Kissinger**, C.P.A., Assistant Professor\*  
Ph.D., Michigan State University

**James M. Krueger**, C.P.A., Assistant Professor\*  
D.B.A., Indiana University

**Edward C. Lawrence**, Assistant Professor\*  
Ph.D., Pennsylvania State University

**Patricia Little**, Assistant Professor\*  
Ph.D., Washington University

**Kenneth Locke**, Assistant Professor\*  
D.B.A., Indiana University

**Laurence A. Madeo**, Assistant Professor\*  
Ph.D., University of Michigan

**Paul G. Marlin**, Assistant Professor\*  
D.Sc., George Washington University

**Joseph Martinich**, Assistant Professor\*  
Ph.D., Northwestern University

**Stanley Miedich**, Assistant Professor\*; Coordinator in Finance  
D.B.A., University of Colorado

**Mo Mahmood**, Assistant Professor\*  
D.B.A., Texas Tech University

**David Ronen**, Assistant Professor\*  
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**Vicki L. Sauter**, Assistant Professor\*  
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**Lois VanderWaerd**, Assistant Professor  
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M.B.A., North Texas State University

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M.S., Washington University

**Lindell Chew**, Instructor  
M.B.A., University of Missouri-Columbia

**John Cox**, C.P.A., Instructor  
M.A., University of Missouri-Columbia

**Jane Ferrell**, Instructor; Assistant to the Dean  
M.B.A., Southern Methodist University

**William R. Link**, C.P.A., Instructor  
M.B.A., University of Missouri-Columbia

**Beryl Lycan**, Instructor; Director, University System-Extension  
M.A., Central Missouri State University

**Jeanette Medewitz**, Lecturer  
M.S., St. Louis University

**Donna Rosenberg**, Lecturer  
M.B.A., University of Missouri-St. Louis

**Ottilia N. Voegtli**, Instructor  
M.B.A., University of Missouri-St. Louis

**Diane Wald**, Lecturer; Assistant Director of Graduate Studies in Business  
M.B.A., University of Missouri-St. Louis

**William L. Webster**, Instructor  
M.B.A., Old Dominion University

**Wayne Winter**, Instructor; Assistant Coordinator in Legal Environment  
L.L.M., Washington University

**Terri L. Wojcicki**, Instructor  
M.B.A., University of Missouri-St. Louis

\*members of Graduate Faculty

## Business Administration

The School of Business Administration faculty has distinguished itself in the areas of teaching, research, and service. Five members of the current faculty have been cited as outstanding teachers by the UMSL Alumni Association. The School of Business Administration also has a strong research orientation. During the 1983-84 academic year the faculty had 27 articles published in scholarly journals. Fifteen articles have been accepted for publication in the 1984-85 academic year; 33 articles have been prepared for publication and are currently pending review; and 31 papers were presented at professional meetings.

### Undergraduate Studies

#### Degrees and Emphasis Areas

The School of Business Administration offers work leading to the bachelor of science degree in business administration (BSBA). The program is accredited by the American Assembly of Collegiate Schools of Business, the authorized professional accrediting body in collegiate business education.

The BSBA program represents a concentrated professional education in business. Professional credit requirements have been kept to a minimum to allow for a balanced liberal arts-professional program. Students have ample opportunity to develop a professional emphasis area in accounting, finance, management and organizational behavior, management information systems, management science or marketing. Specific information with respect to the emphasis area requirements may be obtained from the School of Business Administration's Office of Undergraduate Academic Advising.

#### Minor in Business Administration

The School also offers a minor in Business Administration for students pursuing other degree programs.

#### Minor in Employee Training and Development

The School of Business Administration and the Evening College offer a minor in employee training and development. Information on this minor can be found in the Evening College section of this book.

#### Business Development Center (BDC)

The Business Development Center is a part of the School of Business Administration and the University of Missouri Extension Division. The BDC is a unique vehicle that mobilizes students, faculty, and other professional resources for Small Business and Community Economic Development.

#### Cooperative Education and Internship Programs

Cooperative Education and Internship Programs are available for students seeking career-related employment while enrolled in school. These programs afford business students an opportunity to gain practical experience and earn a substantial income while attending school. Co-ops and internships are administered through the Career Planning and Placement Office.

#### Admission to the School of Business Administration

The school offers a two-year, junior-senior level program. Admission prerequisites are:

**1** At least a 2.0 grade point average for all work attempted at UMSL.

**2** At least a 2.0 grade point average for all qualifying work, with a minimum of 60 credit hours. Of those 60 hours, no more than 15 may be in introductory business administration courses (below the 200 level). Normally qualifying work includes the following:

**Business Administration 103**, Introduction to Business Data Processing

**Business Administration 131**, Elementary Statistics

**Business Administration 140**, Fundamentals of Financial Accounting

**Business Administration 145**, Managerial Accounting

**Business Administration 156**, Legal Environment of Business

**Economics 51**, Principles of Microeconomics

**Economics 52**, Principles of Macroeconomics

**3** Completion of both the University and School's general education requirements.

#### Transfer Students

Transfer students must meet all admission requirements; students failing to do so may be accepted for admission to the University but not directly to the School of Business Administration. Students transferring to UMSL are expected to take most of their specific business work during their junior and senior years. A student may transfer up to 15 hours of credit in business taken at the freshman or sophomore level, exclusive of economics. Business courses which are offered at the freshman or sophomore level and which are transferred in lieu of those offered at UMSL at the 200 level or above must be validated. Validation is determined by the appropriate discipline and may include:

**1** Passing an approved 200-level or above course in that area with a grade of C or better

or

**2** Passing a proficiency examination.

Business students transferring from other institutions must complete at least 21 hours in business at UMSL on a regular graded basis and meet the University's residency requirement.

#### General Education Requirements

All undergraduate business administration majors must complete the general education requirements of both the University and the School of Business Administration. The combined effect of these requirements is as follows:

**1** Demonstration of basic skills in the communicative area by a minimum grade of C in English 10, English Composition or a satisfactory score on the English placement test. For more information refer to the University General Education Requirements.

**2** Effective in the fall semester, 1985, students wishing to complete a degree at UMSL must complete English 160, Advanced Expository Writing, or its equivalent at the junior level.



# Business Administration

**3** Three courses in the humanities, to be chosen from art history or art appreciation (applied art and applied music courses do not count); literature; music history, literature, theory or appreciation; philosophy and logic; theatre appreciation, theory, and history.

**4** Five courses in social science, to include: Economics 51, Principles of Microeconomics and Economics 52, Principles of Macroeconomics; one course which meets the state requirement (see the University General Education Requirements); and two courses in the behavioral sciences, chosen from anthropology, psychology, or sociology.

**5** Three courses in mathematics and science which must include: a minimum proficiency in Mathematics 102, Finite Mathematics; (**Note Mathematics 30, College Algebra or Mathematics 40, Pre-Calculus Mathematics is a prerequisite to Mathematics 102**) and at least **one lecture course** in either a biological or physical science.

**6** One course in non-Euro-American studies, as outlined in the College of Arts and Sciences General Information.

## Language and Mathematics Option

In addition to the above, degree candidates must complete **one** of the following options:

**1** Thirteen (13) hours in one foreign language. (These are counted as free electives since they do not meet any specific general education requirements.)

**or**

**2** A minimum of Mathematics 101, Survey Calculus, **or** Mathematics 80, Analytic Geometry and Calculus I. (Students planning to pursue any further calculus should take Mathematics 80.) Also required is **one** quantitative course from the following:

**Business Administration 308**, Production and Operations Management

**Business Administration 329**, Intermediate Statistics

**Business Administration 331**, Multivariate Analysis

**Business Administration 375**, Operations Research

**Economics 365**, Economic Statistics and Econometrics

**Mathematics 175**, Analytical Geometry and Calculus II (which has a prerequisite of **Mathematics 80**, Analytic Geometry and Calculus I)

## Degree Requirements

### Bachelor of Science Degree in Business Administration

Candidates for the BSBA degree must complete the following **business administration** courses:

**103**, Introduction to Business Data Processing

**131**, Elementary Statistics

**140**, Fundamentals of Financial Accounting

**145**, Managerial Accounting

**156**, Legal Environment of Business

**202**, Fundamentals of Production

**204**, Financial Management

**206**, Basic Marketing

**210**, Management as a Behavioral Science I

**391**, Business Policy and Administration (seminar)

A minimum of **18** hours must be taken in business electives.

## Free Electives

In addition to the above, there are approximately 30 free elective hours. Up to 12 of these may be taken in the School of Business Administration; the remaining must be earned outside the School.

## Graduation Requirements

The degree program requires a minimum of 45 hours in business administration courses and a **total of 120 hours**. The student must earn a minimum grade point average of 2.0 overall and a minimum grade point average of 2.0 for all business courses. All grades from within the University of Missouri system are computed in the GPA.

## Limitation on Discipline Concentration

While a certain level of concentration in one of the various business fields is desirable, students should not concentrate their course selection to the extent of limiting their career flexibility. Therefore, no more than 15 hours beyond required courses are allowed in any discipline, with the exception of accounting, in which 24 hours beyond required courses are allowed. The combined hours in business and economics courses may not exceed 78.

## Satisfactory/Unsatisfactory Option

Business students in good standing may take up to 18 hours on a satisfactory/unsatisfactory basis. Exempt from this option are specific degree requirements, including such courses as Economics 51, Economics 52, Mathematics 30, Mathematics 102, English 10 and English 160; courses fulfilling the mathematics-language option; and the required business courses. Up to 9 of the allowed 18 hours of work taken on a satisfactory/unsatisfactory basis may, however, be in business electives. Students should consult the School of Business Administration's regulations on this option as related to courses in their particular emphasis area.

A student may take no more than 30 hours of business courses without formal admission to the School of Business Administration or formal declaration as a business administration major in the Evening College.

The School of Business Administration faculty is currently considering the implementation of a higher GPA requirement for admission and graduation. This will be no more than 2.5 and may be imposed on all students entering the School beginning fall semester, 1985.

## Requirements for the Minor in Business Administration

In order to obtain an academic minor in business administration, a student must satisfy the following requirements:

**Pre-Business General Education Requirements** A student must complete the following **economics** courses:

**51**, Principles of Microeconomics

**52**, Principles of Macroeconomics

## Business Administration

**Statistics Requirement** A student must take **one** of the following **statistics** courses:

**Business Administration 131**, Elementary Statistics  
(Prerequisite: Mathematics 102)

**Economics 365**, Economic Statistics and Econometrics  
(Prerequisite: Economics 51 and 52 and Mathematics 31 or Business Administration 131)

**Mathematics 232**, Applied Statistics II (Prerequisite: Mathematics 31 or 132 or equivalent)

**Psychology 101**, Psychological Statistics (Prerequisites: Psychology 3 and Mathematics 30 or equivalent)

**Business Course Requirements** A student must complete a **minimum of 24 hours** in business. The following **six business administration** courses must be taken:

**103**, Introduction to Business Data Processing

**140**, Fundamentals of Financial Accounting (Prerequisite: sophomore standing)

**145**, Managerial Accounting (Prerequisite: Business Administration 140 or equivalent)

**204**, Financial Management (Prerequisites: Business Administration 140, Economics 52, and Statistics Requirement)

**206**, Basic Marketing (Prerequisites: Economics 51, and junior standing)

**210**, Management as a Behavioral Science I (Prerequisites: three hours in anthropology, psychology or sociology and junior standing)

and any **two additional business** courses other than those listed under Statistics and Business Course Requirements.

In addition to completing the above courses, the following requirements for a minor in business administration must also be met:

**1** A student may not take more than 30 hours of business courses within the 120 hours required for the degree program.

**2** A student must earn an average of C or better in all business courses taken.

**3** No course taken on a satisfactory/unsatisfactory basis may be applied toward fulfilling the minor requirements.

**4** At least **12 credits** of the business course requirements must be taken in residence at UMSL.

## Graduate Studies

The School of Business Administration offers three master's degrees: the Master of Business Administration (MBA), the Master of Science in Management Information Systems (MS in MIS), and the Master of Accounting (MAcc).

### Admission Requirements

The admissions decision is based on a combination of factors. Consideration is given to a candidate's academic record, GMAT scores, work and leadership experience, a personal narrative on the application form, and recommendations.

Applicants are required to take the Graduate Management Admission Test (GMAT). This test is given four times each year. A three and one-half hour aptitude test, it is designed

to measure certain mental capabilities important in graduate business studies. It tests ability to read, understand and reason logically with both verbal and quantitative material. The test is not a measure of achievement or knowledge of business administration curriculum. Applications for the examination may be made directly to the Graduate Management Admissions Test, Educational Testing Service, Box 966-R, Princeton, New Jersey 08541. Information concerning the GMAT may also be obtained from the admissions adviser or the Office of Graduate Studies in Business.

## MBA Program

The MBA program is fully accredited by the American Assembly of Collegiate Schools of Business, the authorized professional accrediting body in collegiate business education, and is designed to prepare students for administrative positions. It also provides an appropriate foundation for students contemplating doctoral work and eventual careers in college teaching or in research. The program is designed for students who have bachelor's degrees from accredited institutions, including those with undergraduate backgrounds in the sciences, engineering, humanities, or arts. Students with undergraduate degrees in business administration or economics may pursue modified degree programs.

A 60-hour or two-year program, the MBA curriculum provides training in the fundamental areas of administration. The core program is designed to generate a working knowledge of the concepts and interrelationships of four broad categories fundamental to management training:

- the external environment confronting business organizations and management's response to interactive legal, economic, social, and political issues.
- the internal operation of various business organizations and management's role in channeling human behavior to satisfy both personal and organizational goals.
- basic concepts, terminology and interaction of the accounting, marketing, finance, and production disciplines.
- the growing importance of dynamic, quantitative management decision-making models in today's business environment in the context of current management information systems.

The total degree program is integrated by a course in policy formulation and administration in the student's last semester. There is no thesis requirement; however, students interested in undertaking an individual research project may earn elective credit by enrolling in a supervised independent study course.

### MBA Program Degree Requirements

Students must take at least 39 hours of graduate work within a six-year period, 30 hours of which must be taken while enrolled as MBA candidates at UMSL.

Candidates must take at least **one** course, required or elective, in each of the following areas: accounting, finance, marketing, management, and quantitative management science.

# Business Administration

Students are **also required** to have completed the equivalent of Mathematics 101, Survey Calculus, with a grade of C or better by the end of their first semester. Graduate credit is not given for this course.

## Required Basic Courses

The following courses or their equivalents are required of all degree candidates:

- Business Administration 410**, Managerial Economic Analysis
- Business Administration 411**, Analysis of National Economic Environment
- Business Administration 412**, Public Policies Toward Business
- Accounting 440**, Financial Accounting: Theory and Practice
- Finance 450**, Financial Management
- Management 460**, Organizational Behavior and Administrative Processes
- Marketing 470**, Contemporary Marketing Concepts
- Quant. Mgt. Sc. 480**, Introduction to Computer Programming and Business Applications
- Quant. Mgt. Sc. 481**, Statistical Analysis for Management Decisions
- Quant. Mgt. Sc. 482**, Operations Research Methods
- Business Administration 490**, Policy Formulation and Administration

## Required Second-Level Courses

At least **three** of the following courses are also required:

- Accounting 441**, Concepts in Management Accounting
- Finance 451**, Advanced Financial Management
- Management 461**, Managing Human Resources
- Marketing 471**, Marketing Planning and Strategy
- Quant. Mgt. Sc. 483**, Production and Operations Management

## Electives

The 18 hours of electives allow students to tailor the degree program according to individual interests. Up to nine hours of electives may be selected from any one area. A maximum of six hours of electives may be taken at the 300 level. Nine elective hours may be taken outside the School of Business Administration if the student has approval in advance from a graduate adviser for the specific courses desired.

## Previous Education

Students with previous education in business or economics may waive certain graduate required courses. Depending upon the student's transcripts and the applicability of the course work, students with an undergraduate background in business may waive up to 21 hours of the 60-hour program. At least 39 hours must be taken to earn the degree regardless of the number of required courses waived.

## Master of Science in Management Information Systems (MS in MIS)

The MS in MIS program is designed to provide students with a foundation in both the functional business areas and in various managerial and analytical skill areas required in modern organizations. A specialized program in computer-based management information systems is then built on this foundation. The overall objective of the program is to offer the student sufficient technical and managerial knowledge and skills to operate successfully in a computer-oriented

environment. The program is designed for students who have bachelor's degrees from accredited institutions, but it is not restricted to any single undergraduate major.

## MS in MIS Program Degree Requirements

The curriculum involves a 60-hour or two-year program including a 30-hour core curriculum that is identical to that of the MBA program. Students with the appropriate academic background may waive some or all of this core curriculum. The second 30 hours involves a specialized curriculum oriented around computer-based management information systems.

Students are required to have completed the equivalent of **Mathematics 101**, Survey Calculus, with a grade of C or better by the end of the first semester. Graduate credit is not given for this course.

## Required Basic Courses

The following courses or their equivalents are required of all degree candidates:

- Business Administration 410**, Managerial Economic Analysis
- Business Administration 411**, Analysis of National Economic Environment
- Business Administration 412**, Public Policies Toward Business
- Accounting 440**, Financial Accounting: Theory and Practice
- Finance 450**, Financial Management
- Management 460**, Organizational Behavior and Administrative Processes
- Marketing 470**, Contemporary Marketing Concepts
- Quant. Mgt. Sc. 480**, Introduction to Computer Programming and Business Applications
- Quant. Mgt. Sc. 481**, Statistical Analysis for Management Decisions
- Quant. Mgt. Sc. 482**, Operations Research Methods

## Required Specialization Courses

The following courses are required:

- Quant. Mgt. Sc. 484**, Business Information Systems
- Quant. Mgt. Sc. 485**, Computer-Based Information Systems: Theory and Practice
- Quant. Mgt. Sc. 488**, Information System Design
- Quant. Mgt. Sc. 489**, Data Base Management Systems
- Business Administration 490**, Policy Formulation and Administration

At least three of the following courses are also required:

- Quant. Mgt. Sc. 486**, Advanced Statistical Methods for Management Decisions
- Quant. Mgt. Sc. 487**, Advanced Operations Research Applications
- Quant. Mgt. Sc. 491**, Computer Systems Concepts
- Quant. Mgt. Sc. 492**, Information System Management
- Quant. Mgt. Sc. 493**, Simulation for Managerial Decision Making
- Business Administration 424**, Seminar in Current MIS Topics
- Accounting 449**, Systems Auditing

## Electives

Two courses may be taken either from the above courses not selected previously or from other approved (in advance) courses within the School of Business Administration or outside the School. These may be either 300- or 400-level courses. The six hours in this group of electives may also be met by the completion of a thesis.



# Business Administration

## Master of Accounting Program (MAcc)

The MAcc program is designed primarily for students with undergraduate majors in accounting seeking further accounting and business training either to prepare themselves for entry into the fields of public, corporate, or not-for-profit accounting or to further existing careers. Other students may be admitted to the program but will be required to eliminate all business and accounting deficiencies before starting the 30-credit-hour sequence of courses.

### MAcc Program Degree Requirements

Students will be required to take a minimum of 30 credit hours of graduate business and accounting courses, no more than six credit hours of which may be at the 300 course level.

Successful completion of a minimum of six credit hours of courses in written and/or oral communication is a prerequisite to the program.

Students are also required to have completed the equivalent of either **Mathematics 101**, Survey Calculus, or **Mathematics 102**, Finite Mathematics, with a grade of C or better by the end of the first semester. Graduate credit is not given for these courses.

### Business Background Requirements

Before beginning the 30-credit-hour sequence of graduate business and accounting courses, all students must have an adequate background in business and economics. The background must include at least one three-credit-hour course (or its equivalent) in each of the following subject matter areas: macroeconomics, microeconomics, statistics, financial accounting, managerial accounting, marketing, production, finance, business law (uniform commercial code), management, business policy, and management information systems.

### Accounting Background Requirements

In addition to the business background courses, students must have completed certain upper-level undergraduate accounting courses (or their equivalents) prior to their starting the 30-credit-hour sequence of graduate business and accounting courses. The following two courses are required of all students:

**Business Administration 340**, Intermediate Accounting I  
**Business Administration 341**, Intermediate Accounting II

In addition, all students must have successfully completed at least three of the following courses:

**Business Administration 342**, Advanced Accounting  
**Business Administration 345**, Cost Accounting  
**Business Administration 347**, Income Taxes  
**Business Administration 348**, Auditing  
**Business Administration 349**, Business Income Taxation

### Program Requirements

**Graduate Accounting Courses** At least 15 and no more than 21 credit hours of advanced accounting courses must be taken, at least 15 of which must be at the 400 course level.

### Required Basic Courses

The following courses or their equivalents are required of all degree candidates:

**Accounting 448**, Seminar in Advanced Theory and Contemporary Issues in Accountancy  
 and **either**

**Accounting 421**, Seminar in Corporate Accounting or **Accounting 422**, Seminar in Governmental and Not-for-Profit Accounting

### Other Accounting Options

Students must also take **at least three other 400-level accounting courses**. At present these include:

**Business Administration 418**, Governmental Budgeting and Financial Control

**Accounting 419**, Management Accounting and Auditing in Governmental and Not-for-Profit Entities

**Accounting 443**, International Accounting

**Accounting 446**, Topics in Professional Accounting

**Accounting 447**, Accounting Systems for Management Planning and Control

**Accounting 448**, Systems Auditing

**Graduate Courses in Business or Related Fields** At least nine and no more than 15 credit hours of graduate courses in business or related fields must be taken, at least nine of which must be at the 400 course level.

## Special Interdisciplinary Degree

The School of Business Administration also cooperates with the departments of economics and political science in the College of Arts and Sciences in offering a master's degree in public policy administration (MPPA). For information on the MPPA degree program, see the Special Interdisciplinary Degree section of this *Bulletin*.

## Career Outlook

The current economic climate appears to favor students with business training. Business school graduates with the BSBA degree usually obtain entry-level positions in areas requiring accounting, finance, management, management information systems, marketing, and quantitative backgrounds. Recent graduates of the School of Business Administration hold positions with a variety of local and national firms as accountants, internal auditors, sales representatives, cost, budget, and systems analysts, executive trainees, merchandisers, systems programmers and purchasing agents.

Many graduates of UMSL's graduate business programs are employed in staff-level positions in local and national businesses, and opportunities for managerial posts are promising for the graduate with a master's degree in business administration. Additionally, several graduates have chosen to pursue careers in college teaching.





# School of Education





# Undergraduate Studies in Education

## Accreditation

UMSL, through the School of Education, is accredited by the National Council for Accreditation of Teacher Education for the preparation of elementary and secondary school teachers and school service personnel.

## Undergraduate Studies

### Degrees and Areas of Concentration

The School of Education offers work leading to the B.S. in education with specialization in any of the following: early childhood education, elementary education, special education, and secondary education. Courses are also available for those seeking certification for middle school/junior high teaching. In cooperation with other schools and colleges of the University, the School provides a program for students pursuing other degrees but planning on a teaching career in secondary education. The School is divided into four departments: Administration, Foundations and Secondary Education; Behavioral Studies; Childhood Education; and Physical Education. Each offers course work toward one or more of the above areas.

### Course Designations in the School of Education

The following abbreviations are used to indicate instructional areas in the course listings and descriptions in the School of Education. The page numbers refer to the *UMSL Bulletin: Description of Courses*, a separate booklet.

Adult Education Courses (**ADU ED**), p. 85  
 Counselor Education Courses (**CNS ED**), p. 93  
 Early Childhood Education Courses (**ECH ED**), p. 97  
 Educational Administration Courses (**ED ADM**), p. 86  
 Educational Foundations Courses (**ED FND**), p. 87  
 Educational Psychology Courses (**ED PSY**), p. 93  
 Educational Statistics & Research Courses (**ED S&R**), p. 88  
 Educational Technology Courses (**ED TEC**), p. 88  
 Elementary Education Courses (**ELE ED**), p. 98  
 Evaluation and Measurement Courses (**EVL MS**), p. 94  
 Physical Education Courses (**PHY ED**), p. 101  
 Schoolwide Education Courses (**EDUC**), p. 83  
 Secondary Education Courses (**SEC ED**), p. 89  
 Special Education Courses (**SPC ED**), p. 95

### General Education Requirements

Students in the School of Education must meet University and departmental general education requirements specified for their degrees.

## Admission Policies

**Types of Admission** Students who wish to become teachers must be aware of two types of admission that pertain to them. One is admission to the School of Education, the other is admission to the Teacher Education Program. These serve completely different purposes and are separate procedures handled by different offices.

**Admission to the School of Education** After completing two years of college work at an accredited institution,

students intending to teach in elementary, early childhood, middle school/junior high, special education, business education, or physical education settings must apply for admission to the School of Education. Students intending to teach in secondary-school classrooms other than specified above, may elect to pursue the B.S. in education or to receive degrees from other University colleges and schools and also meet teacher certification requirements. Students admitted to the School must also be admitted to the teacher education program.

### Level I Application to the School of Education

Application to the School is processed through the Admissions Office. Eligibility is based upon the following criteria:

- 1 Satisfactory completion of two years of college work, with a minimum of 60 semester hours with a grade point average of 2.0 or above.
- 2 Having no more than nine hours of deficiencies in general education.
- 3 Completion of the specific prerequisites and/or other special requirements of the curriculum areas for which students are applying.

## Admission to the Teacher Education Program

All students who wish to become teachers must be admitted to the Teacher Education Program regardless of the College or School in which they are enrolled. The admission program requires student action at the following two levels.

### Level II Application to the Teacher Education Program

Applications to the Teacher Education Program are processed through the Office of Undergraduate Studies in Education. Eligibility is based upon fulfillment of the following requirements:

#### Effective July 1, 1984

1. Scored either 18 on the ACT Composite or 800 on the SAT (verbal plus math)\*
2. Completed 60 hours of college or university courses (at UMSL or another accredited school).
3. Accumulated a grade point average of 2.2.
4. Completed ELE ED, PHY ED, and SPC ED 101, Introduction to Classroom Teaching, or the equivalent, with a grade of "C" or better. (Not applicable for secondary education majors.)
5. Completed ED FND 111, The School in Contemporary Society, or the equivalent, with a grade of "C" or better.
6. Received screening test in hearing (at no cost at the UMSL Health Center or off campus at personal expense).
7. Received screening test in vision (at no cost at UMSL Optometry Clinic or off campus at personal expense).
8. Agreed to adhere to ethical codes which have particular pertinence during clinical experiences. (These codes are available in the Office of Undergraduate Studies in Education, School of Education.)

## Undergraduate Studies in Education

9. Agreed to subscribe to a standard of preprofessional behavior which will enhance greater self-awareness if social or emotional difficulties arise which may affect future teacher effectiveness. (This standard is available in the Office of Undergraduate Studies in Education.)

10 Submitted an Affidavit of Moral Character, notarized by a Notary Public.

### \*Policy for Students Scoring Below ACT and SAT Qualifying requirements

Students who do not achieve satisfactory scores of 18 on the ACT or 800 on the SAT may re-take the test(s) until the requirement is met. Post-baccalaureate students with non-education degrees may substitute the Graduate Record Exam (GRE) for the SAT or ACT.

Students who score below the required ACT score of 18 or SAT score of 800 may petition the Dean of Education to waive the requirement if their grade point average from 60 hours of college or university courses is at least 2.20 and they have performed satisfactorily on a norm-referenced achievement test. The Petition form is available in the Office of Undergraduate Studies in Education, School of Education.

Students with a documented disabling condition, preventing valid test administration of the ACT or SAT, may be evaluated for basic educational competencies through appropriate testing instruments and/or procedures by psychometrists designated or approved by the dean of the School of Education.

Students who do not meet the qualifying scores will be advised to seek assistance through one or more of the following University of Missouri-St. Louis services:

- Center for Academic Development
- Counseling Service
- College at Home
- Discovery Program
- Peer Counseling Center
- Women's Center
- Veterans Affairs Office

In addition, assistance may be available through correspondence courses, University of Missouri-Columbia. Copies of this policy are available in the Office of Undergraduate Studies in Education.

### Level III Application to the Student Teaching Program

Students must make formal application to student teaching at least **one full semester** (excluding summer session) prior to the semester in which they plan to do their student teaching. Applications must be filed during the periods designated by the Office of Undergraduate Studies in Education, 155 Marillac Hall. Students are encouraged to file their applications during the first four weeks of the semester.

### Health Certificate

A Missouri School Personnel Health certificate signed by a physician and valid for the year in which students do their student teaching must accompany the application forms. Missouri School Personnel Health Certificates are available in the Office of Undergraduate Studies in Education.

Upon receipt, formal applications are checked to ensure students have met the following requirements:

- 1 Full admission to the teacher education program.
- 2 Completion of 90 hours of approved course work at the time of application.

3 A cumulative grade point average of 2.5 or above by the semester prior to the one in which students plan to do their student teaching. The 2.5 cumulative grade point average must be maintained in order to graduate with a B.S. in education degree and/or be certified to teach in the state of Missouri.

4 Completion of English 160, Advanced Expository Writing, with a grade of "C" or better.

5 Completion of Speech 40, Introduction to Public Speaking, with a grade of "C" or better.

6 Completion of general education requirements and near completion of course requirements in the teaching major.

7 A grade of C or better in all professional education courses so designated. Lists of these courses are available in the Office of Undergraduate Studies in Education and from advisers.

8 Satisfactory recommendations by students' teaching area representatives in the teacher education program.

9 Completion at UMSEL of no less than 12 hours of approved course work.

10 Grade point average of 2.2 in the teaching field (secondary education students only).

11 Completion of prerequisite courses in professional education and psychology.

### Student Teaching

The student teaching experience in the Early Childhood, Elementary Education, Middle School/Junior High, Physical Education, and Special Education certification programs has been strengthened by providing assignments in two different school settings and appropriately increasing the amount of time devoted to it. Students in the "7-1-7" program teach full days for seven weeks. They are off for one week and then teach seven weeks in a different district and at a different grade level.

Student teaching, which must be done in residence, is not offered during the summer or in the evening. Secondary student teaching in science education, mathematics education, and foreign language education is offered **only** during the Winter semester. Secondary education majors (excluding business education) student teach for 16 weeks for half days. Business education student teachers teach for eight weeks, full days.

While enrolled in student teaching, students may not carry more than 15 credit hours. When students are admitted to student teaching, the Office of Undergraduate Studies in Education arranges assignments with appropriate school district officials. **Students should not contact school officials or teachers about possible student teaching assignments.** Failure to observe this request is grounds for removal from student teaching.

Students who withdraw from student teaching at any time after being admitted for a given semester must formally re-apply during the designated application period for the subsequent semester in which they plan to do their student teaching. This must be done in person in the Office of Undergraduate Studies in Education. Students who withdraw



## Undergraduate Studies in Education

in this way three times must wait a minimum of one calendar year after the third such withdrawal before they may re-apply for student teaching. At the time of re-application they must present evidence that the circumstances which prevented them from continuing in student teaching during their last admission no longer pertain. In all instances of re-application, students must meet the requirements in effect for the semester during which they plan to do their student teaching.

Student teachers who fail the course or are allowed to withdraw because they are failing to meet minimum requirements must wait at least one full semester and fulfill the remedial requirements established at the time of the failure or withdrawal before they may re-apply for admission to student teaching. The remedial requirements will be determined by the director of the Office of Undergraduate Studies in Education after consultation with the cooperating teachers, University supervisors, and student teachers involved. The students must provide appropriate evidence that the remedial requirements have been met at the time they re-apply for admission to student teaching. It is understood that meeting the remedial requirements does not guarantee success in the subsequent student teaching experience.

For further information regarding certification, contact the Office of Undergraduate Studies in Education, 155 Marillac Hall.

### Application for Degree and/or Certificate

**Bachelor of Science in Education** Candidates for the B.S.Ed. degree must complete degree and certificate application forms in the Office of Undergraduate Studies in Education when they apply for admission to student teaching or during the semester before the one in which they expect to finish degree requirements.

**Bachelor of Arts** Students seeking the B.A. degree with teacher certification must complete a state certification form with the Office of Undergraduate Studies in Education during the last month of the semester in which their requirements will be completed.

#### Certification

In cooperation with the Missouri State Department of Elementary and Secondary Education, the School of Education is responsible for issuing teaching certificates to students completing B.S. in education degree requirements, recommending for certification students completing degrees in other UMSL colleges and schools as well as all certification requirements, advising, and recommending for certification those postdegree students who meet requirements.

By completion of specified undergraduate courses at UMSL, certification may be obtained in the following fields: elementary education, early childhood education, middle school/junior high, special education, educable mentally retarded (EMR), music education, physical education, as well as the secondary education areas of biology, business, chemistry, English, foreign languages (French, German, Spanish), mathematics, physics, and social studies. Graduate programs leading to certification in counseling, reading, psychological examiner, school administration (elementary and secondary principal, school superintendent), and special education: behavioral disorders (BD), learning disabilities (LD), educable mentally retarded (EMR), and early childhood special education (ECSE) are also available; see Graduate Studies sections for each department of the School of Education.

#### Special Certification Requirement

Every student seeking a teaching certificate must satisfactorily complete SPC ED 313, The Psychology and Education of Exceptional Individuals. This course meets the requirements of Missouri law mandating such a course before a teaching certificate may be issued.

#### State Certification Requirements

**NOTE** The General Assembly enacted a law during 1984 eliminating Life Teaching Certificates after September 1, 1988. The State Board of Education is authorized to develop new standards for one or more renewable professional certificates, based on specific requirements for training and experience.

Students who intend to become certified to teach in Missouri need to be aware that the Department of Elementary and Secondary Education has revised and passed new state certification requirements in all teaching fields. The effective dates for these new requirements are as follows: Elementary Education—September 1, 1982; Secondary Education—September 1, 1984; Special Education—September 1, 1986. In order to ensure that all new requirements will be met, students should consult advisers in the Office of Undergraduate Studies in Education to determine how these changes will effect their programs.

# Graduate Studies in Education

## Graduate Studies

### Degrees and Areas of Emphasis

M.Ed. programs are offered in counseling, educational administration, elementary education, secondary education and special education. Within the counseling program are the emphasis areas of elementary, secondary and general counseling. Within the Educational Administration program are the emphasis areas of community education, elementary administration, and secondary administration. Within the Elementary Education program is the emphasis area of reading. Within the Secondary Education program are the emphasis areas of adult education, curriculum and instruction, and reading. Within the Special Education program are the emphasis areas of behavioral disorders, learning disabilities, mental retardation, and early childhood/special education. Courses are available for areas of specialization in educational technology, physical education, and severe handicaps.

Advanced certification studies (60-hour concentrations) are offered in elementary and secondary educational administration.

Programs leading to the Ed.D. degree are offered in two broad interdisciplinary emphasis areas: learning-instructional processes and behavioral-developmental processes.

## Master of Education Degree

**Admission and General Requirements** The School of Education follows Graduate School policies relating to admissions, academic standards, residency, transfer credit, time limitations, and thesis options (see Graduate Studies in this *Bulletin*). The minimum number of hours required for the M.Ed. degree is 32. The school has adopted a flexible policy on comprehensive examinations with options determined departmentally.

**Advisement and Program Planning** After acceptance, each student completes a graduate advisory form, available in the School of Education's Office of Graduate Studies, 158A Marillac Hall. An adviser is then appointed who counsels the student in registration and program planning. A program for master's degree form must be submitted for approval during the first half of the student's program. This form includes all course work in the program and the comprehensive examination option. Once approved, the degree program may be changed only by petition.

Students working toward teacher and/or school service personnel certification as graduate students should complete state certification forms in the Office of Undergraduate Studies in Education, 155 Marillac Hall, during the semester in which those requirements will be completed.

## Doctor of Education Degree

The Ed.D. degree is designed primarily for the field practitioner, and is, therefore, a comparatively broad-based interdisciplinary degree. The two emphasis areas, learning-instructional processes and behavioral-developmental processes, embrace the two general categories of professional activities.

**Learning-instructional processes** place primary emphasis on the teaching-learning relationship as well as on general planning and development of organizational programs to carry on this relationship successfully. Traditional programs that tend to fall under this heading are school administration, elementary and secondary teaching, supervision/curriculum, and reading instruction.

**Behavioral-developmental processes** place primary emphasis on the nature of individuals. Doctoral studies focus on such elements as learners' behavioral and developmental characteristics, typical and atypical development within varied environments, motivation, strategies of behavioral change, and counseling processes. Traditional programs that tend to fall under this heading are counseling, special education, educational psychology, and measurement.

Students seeking the Ed.D. degree are expected to meet the doctoral degree requirements and procedures adopted by the Graduate School. (See Doctoral Degree Requirements for details).

## Admission and General Requirements

In addition to meeting the application and admissions requirements of the Graduate School, students must submit three letters of recommendation. Because enrollment is limited, admission standards are comparatively high. Successful candidates must exhibit significantly above-average academic records and GRE scores. In exceptional cases, other criteria may outweigh these customary indicators of probable academic success.

At least two years of teaching or other school service experiences are required for admission. Exceptions may be made by substituting a supervised internship during the first year of the program.

**Admission Application** In order to ensure time for review and decision, complete applications and accompanying materials must reach the School of Education's Office of Graduate Studies by June 15 for the fall semester; November 15 for the winter semester; and April 15 for the summer session. These documents should be filed in the Office of Admissions at least two weeks prior to these dates. In addition, applicants are urged to request transcripts and letters of recommendation two weeks before submitting their papers. Consideration of applications cannot be undertaken until all materials are available.

# Graduate Studies in Education

## Degree Requirements

### 1 Core Studies

#### General Foundations, 12 hours from:

Philosophical, historical, psychological, sociological, anthropological, and comparative foundations of education, as well as curriculum, instruction, and supervision.

#### Research Methods, 12 hours from:

Statistics  
Research design  
Computer applications  
Nonquantitative research  
Tests, measurements, and evaluation

#### Common doctoral seminars, 6 hours

### 2 Role Specialization, 48 hours from:

Emphasis area doctoral seminars (6-12)  
Emphasis area electives (15-17)  
Related area (12-18)  
Internship (3-9)

### 3 Dissertation, 12 hours

# Support Services

The School of Education maintains a number of offices and centers to directly assist students, faculty, and people in the metropolitan area and to support its instructional, research, and service activities.

#### Office of Undergraduate Studies in Education—155 MH

This office supplies advisement services for undergraduate teacher education and certification students. It coordinates the clinical experiences of the School of Education and directs the student teaching program.

#### Office of Graduate Studies in Education—158A MH

Information about admission to, and requirements of, graduate programs in education may be obtained in this office. The office also assists students with advisement, registration, and related topics.

#### Teacher Education Resource Center—304 SSB

The Center has four components: the instructional media laboratory, the instructional television laboratory, the teaching skills laboratory, and the computer terminal facility. The Center, through these components, provides direct instructional support to School of Education courses.

#### Office of Evaluation and Special Services—B9 ED LIB

The office coordinates School of Education research efforts in the metropolitan area; provides clinical services in reading, counseling, special education, and related fields; and offers consultative and evaluative services to schools, community agencies, and education-related businesses and groups.

#### Human Services Unit—469 MH

The Human Services Unit is a training facility for graduate students supervised by faculty in the Department of Behavioral Studies. Career counseling and assistance with vocational, adult, or adolescent developmental concerns are available to individuals in the community.

#### Reading Clinic—B9 ED LIB

The Reading Clinic provides a laboratory setting for graduate level elementary and secondary teachers who are seeking certification as reading specialists. The Clinic has been providing services to the surrounding community in diagnosing and treating severe reading problems in children and adults since 1966. The Clinic also serves as a demonstration and materials center for preservice and inservice teacher education as well as a clinical research facility for the faculty.

#### University Child Development Center—130 SCB

The Center provides University students with observation, participation, research, and similar educational and clinical opportunities; it also offers development services to children of student, faculty, staff, and community families.

#### Midwest Center for Community Education Development Center—313 Marillac Hall.

Graduate students interested in community and continuing education may receive assistance from the Center in the form of information, materials, and training programs. Fellowships are sometimes available. The Center also serves Missouri and Kansas in the promotion and development of community schools and continuing education. It is a cooperative venture of the School of Education and Continuing Education-Extension.

## Administration, Foundations, and Secondary Education

### Faculty

**Harold E. Turner**, Chairperson, Professor\*  
Ed.D., George Peabody College

**Blanche Touhill**, Professor\*, Associate Vice Chancellor for Academic Affairs  
Ph.D., St. Louis University

**Henry R. Weinstock**, Professor\*  
Ed.D., University of Georgia

**Joy E. Whitener**, Professor\*, Dean of Evening College  
Ed.D., Washington University

**Walter Ehrlich**, Associate Professor\*  
Ph.D., Washington University

**Charles J. Fazzaro**, Associate Professor\*  
Ed.D., West Virginia University

**Richard J. Friedlander**, Associate Professor\*  
Ph.D., University of Iowa

**Charles R. Granger**, Associate Professor\*  
Ph.D., University of Iowa

**Donald R. Greer**, Associate Professor\*, Director of Instructional Technology Center  
Ph.D., University of Missouri-Columbia

**John A. Henschke**, Associate Professor\*, Continuing Education Specialist  
Ed.D., Boston University

**Everette E. Nance**, Associate Professor\*, Director, Midwest Community Education Development Center  
Ed.D., Western Michigan University

**Angelo H. Puricelli**, Associate Professor\*, Associate Dean for Continuing Education-Extension  
Ph.D., St. Louis University

**Robert J. Starr**, Associate Professor\*  
Ed.D., University of Missouri-Columbia

**Paul D. Travers**, Associate Professor\*  
Ed.D., George Peabody College

**James E. Walter**, Associate Professor\*  
Ph.D., University of Wisconsin-Madison

**Fred Willman**, Associate Professor\*  
Ph.D., University of North Dakota

**Edith M. Young**, Associate Professor\*  
Ed.D., University of Missouri-Columbia

**A. Nancy Avakian**, Assistant Professor\*, Assistant Vice Chancellor for Academic Affairs  
Ed.D., State University of New York at Albany

**Terry Austin**, Assistant Professor  
Ph.D., University of Wisconsin-Madison

**Susan H. Bannon**, Assistant Professor\*  
Ed.D., Louisiana State University

**Jane A. Miller**, Assistant Professor\*  
Ph.D., Tulane University

**Wendell L. Smith**, Assistant Professor\*, Dean of Continuing Education-Extension  
Ph.D., Ohio State University

**Jane Z. Flinn**, Lecturer  
M.A., University of Pennsylvania  
M.Ed., University of Toronto

**Mimi J. LaMarca**, Lecturer; Director of Admission  
M.Ed., University of Missouri-St. Louis

\*members of Graduate Faculty

### General Information

The faculty of the Department of Administration, Foundations, and Secondary Education (AFSE) are housed on the second floor of Marillac Hall. Answers to questions about the department and its offerings may be obtained from the department office, 269 Marillac Hall.

The department coordinates programs that prepare students for teaching these subjects in secondary schools (grades 7-12) and middle schools: biology, chemistry, English, French, German, history, mathematics, music, physics, psychology, social studies, speech, and Spanish. A special feature of these programs is the close interdisciplinary cooperation between the professional school and other University departments. The business education major is offered within the School of Education.

Students may choose to pursue the bachelor's degree in the College of Arts and Sciences plus certification, or the Bachelor of Science in Education degree (BSEd) which includes Missouri certification. Business education students have only the latter option.

**NOTE** The General Assembly enacted a law during 1984 eliminating Life Teaching Certificates after September 1, 1988. The State Board of Education is authorized to develop new standards for one or more renewable professional certificates, based on specific requirements for training and experience.

At the graduate level the department provides a program leading to the M.Ed. in secondary education, secondary education with emphasis in adult education, certification studies with Adult Basic Education, secondary education with emphasis in reading, and secondary education and certification. It offers master's degree work and advanced certification studies in elementary and secondary school administration.

Community education is an additional emphasis offered in the educational administration program. Work in educational technology and adult education is also available.

### Undergraduate Studies

#### Degree Requirements

**Interdisciplinary Program: Bachelor of Science in Education in Secondary Education or Bachelor's Degree in the College of Arts and Sciences**

**General Education Requirements** Bachelor's degree candidates in secondary education must complete the University General Education Requirements and must meet the new Missouri Secondary teacher certification general education standards as follows:



# Administration, Foundations, and Secondary Education

## Humanities

At least one course from **two** of the following fields: Music (excluding applied music); Art; Foreign Language; Western and Non-western Cultures; Philosophy; Literature; Classical Studies; Theatre and Drama.

## Communication Skills

At least **two** courses in English Composition and **one** in Oral Communications.

## Social Studies

Courses in American history and American government, and **one** additional course selected from the following areas: Geography; Sociology; Economics; Anthropology; Psychology.

## Natural Science

**One** course in a physical or earth science; **one** course in a biological science. At least one of these courses must have a laboratory component.

## Mathematics

**One** college-level Mathematics course.

Note: All of the courses above must be a minimum of two semester hours.

## Program Requirements

### 28 hours required

The following education and psychology courses meet the state professional education standards:

- ED FND 111**, The School in Contemporary Society
- Psychology 271**, Adolescent Psychology
- ED PSY 312**, Psychology of Teaching and Learning
- SEC ED 213**, Techniques of Secondary School Teaching and Field Experience
- SEC ED 290**, Secondary School Student Teaching
- SPC ED 313**, The Psychology and Education of Exceptional Individuals
- SEC ED 385**, Problems of Teaching Reading in Secondary Schools

and the appropriate course entitled Curriculum and Methods of Teaching \_\_\_\_\_.

**Note:** Music education students take the following courses instead of SEC ED 290: SEC ED 293, Student Teaching in Music Education K-6, and SEC ED 294, Student Teaching in Music Education 7-12. These two courses must be taken during the same semester.

Postdegree certification students may take ED FND 330, History of American Education, in lieu of ED FND 111.

## Area of Concentration: Teaching Fields

Degree candidates must complete 30 to 40 hours of specific subject requirements in one of the following fields: English, foreign language (French, German, Spanish), mathematics, music, science (biology, chemistry, physics), or social studies education.

Social studies students must complete a major in one of the following disciplines: economics, history, political science, psychology, or sociology; and meet these minimum social science requirements: American history, 12 hours; European or world history, 9 hours; United States and/or state government, 6 hours; economics, 3 hours; behavioral science (sociology, anthropology, or psychology), 6 hours; geography, 3 hours; and 2 hours of elective social studies credit.

Total: 120 hours

## Bachelor of Science in Education: Secondary Education with Emphasis in Business Education

**General Education Requirements** Business education majors must complete the University General Education Requirements, Missouri certification requirements, and the following education and psychology courses:

## Program Requirements

### 28 hours required

- ED FND 111**, The School in Contemporary Society
- Psychology 271**, Adolescent Psychology
- ED PSY 312**, Psychology of Teaching and Learning
- SEC ED 213**, Techniques of Secondary School Teaching and Field Experience
- SEC ED 267**, Curriculum and Methods of Teaching Business Subjects
- SEC ED 290**, Secondary School Student Teaching
- SPC ED 313**, The Psychology of Education of Exceptional Individuals
- SEC ED 385**, Problems of Teaching Reading in Secondary Schools

Postdegree certification students may take ED FND 330, History of American Education, in lieu of ED FND 111.

## Academic Major

### 33 hours required

These **Secondary Education (SEC ED)** courses:

- 261**, Methods of Teaching Typewriting
- 262**, Methods of Teaching Shorthand
- 263**, Methods of Teaching Accounting and Data Processing
- 264**, Methods of Teaching Social Business Subjects
- 265**, Secretarial Practice
- 292**, Field Experience and Seminar in Secretarial Practice

**plus** these **Business Administration** courses

- 206**, Basic Marketing
- 140**, Fundamentals of Financial Accounting
- 156**, Legal Environment of Business or **256**, Business Law
- 340**, Intermediate Accounting

**and**

**Economics 51**, Principles of Microeconomics

**Note** Grades of C or better are required in all courses in the academic major in SEC ED 267 and 290.

## Electives

Electives are to be selected only after consulting with an adviser.

Total: 120 hours

# Administration, Foundations, and Secondary Education

## Graduate Studies

### Master of Education: Secondary Education

The M.Ed. program in secondary education is flexibly designed to allow for the special interests of teachers, department chairpersons, curriculum workers, instructional supervisors, reading specialists, and those working in adult education. Programs must be planned with advisers and meet the approval of the department, School, and Graduate School.

#### Degree Requirements for All Secondary Education Majors

The minimum 32-hour program for all secondary education majors includes the following requirements:

##### Core Requirements (9 hours)

**SEC ED 415**, The Secondary School Curriculum  
**SEC ED 420**, The Improvement of Secondary School Teaching  
**ED FND 421**, Philosophy of Education

### Master of Education: Secondary Education with Emphasis in Curriculum and Instruction

The M.Ed. with an emphasis in curriculum and instruction is designed to enable candidates to further their competencies as teachers or curriculum/instructional leaders.

#### Degree Requirements (32 hours)

##### 1 Core Requirements (9 hours as specified above)

##### 2 Curriculum/Instruction Core (8 hours)

Courses are to be selected in consultation with an adviser in the curriculum/instruction field from among the following:

**EDUC 415**, Seminar II, Curricular Issues and Problems  
**SEC ED 385**, Problems of Teaching Reading in Secondary Schools  
**SEC ED 414**, Teaching the Gifted and Talented in Secondary Schools  
**SEC ED 416**, Curriculum Construction for Secondary Schools  
**SEC ED 418**, The Junior High/Middle School  
**SEC ED 422**, Individualizing Instruction in Secondary Schools  
**PHY ED 462**, The Physical Education Curriculum

##### 3 Teaching Field Core (8 hours)

Courses approved by the Graduate School for M.Ed. programs are to be selected in consultation with an adviser in secondary education.

##### 4 Electives

Additional courses may be taken in the School of Education and/or curriculum and instruction areas to provide a consistent program upon the recommendation of the adviser.

### Master of Education: Secondary Education with Emphasis in Adult Education

The M.Ed. with an emphasis in adult education is designed to enable candidates to further their competencies as teachers, administrators, and program planners in various adult

education settings through the study of core courses in adult education plus a minimum of eight hours of elective work appropriate to the candidates's particular needs. Adult Basic Education practitioners can complete course requirements for the Life Teaching Certificate within the scope of or independent from the master's degree program.

#### Degree Requirements (32 hours)

##### 1 Core Requirements (9 hours as specified above)

##### 2 Adult Education Core (8 hours)

Courses are to be selected in consultation with an adviser in the adult education teaching field from among the following courses:

\***ADU ED 412**, Foundations of Adult Education  
 \***ADU ED 413**, Improvement of Instruction in Adult Education  
 \***ADU ED 414**, Curriculum Theory and Development in Adult Education  
 \***ED ADM 480**, Administration of Adult and Community Education  
**EDUC 490**, Internship or **ED ADM 497**, Problems

##### 3 Electives

Additional courses may be taken in the School of Education and/or teaching field to provide a consistent program upon the recommendation of the adviser.

#### Adult Basic Education Certification

\***ADU ED 311**, Teaching Basic Reading Skills to Adults  
 \***ELE ED 445**, Problems of Teaching Arithmetic in the Elementary School or **ELE ED 346**, Advanced Methods in Elementary School Mathematics

\*These six courses, plus three hours of Adult Education electives, in addition to either SPC ED 313, The Psychology and Education of Exceptional Individuals or SPC ED 412, Psychology of Exceptional Children, are required for life certification from the Missouri State Department of Education.

**Adult Basic Education (ABE) Certification** The state of Missouri has established ABE teacher certification standards at three levels—life, five-year, and one-year. The requirements for these levels, including approved UMSL courses, are the following:

##### 1 Life Teacher's Certification ABE

- Bachelor's degree accredited for teaching plus regular Missouri life teacher's certificate
- Completion of the eight courses indicated above.

##### 2 Five-Year Teacher's Certification ABE

- Bachelor's degree accredited for teaching plus regular Missouri life teacher's certificate.
- Minimum of eight hours of credit from the group of adult education courses asterisked above (renewable upon completion of an additional eight hours from the same group).
- Recommendation by local superintendent or ABE director to Missouri Director of Teacher Certification.

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- 3 One-Year Teacher's Certification ABE
- Bachelor's degree accredited for teaching.
  - Minimum of one hour of college credit from an ABE teacher training workshop.
  - Recommendation by local superintendent or ABE director to Missouri Director of Teacher Certification.

### Master of Education: Secondary Education with Emphasis in Reading

The M.Ed. with an emphasis in secondary reading is designed to enable candidates to further their competencies as teachers of reading and to prepare for positions as reading specialists, reading consultants, and/or further graduate study.

**Degree requirements** (32 hours)

**1 Core Requirements** (9 hours as specified above)

**2 Reading Core** (15 hours)

Required courses in reading must be taken **in the following sequence:**

- \***SEC ED 385**, Problems of Teaching Reading in Secondary Schools
- \***ELE ED 486**, Clinical Diagnosis and Treatment of Reading Disabilities
- \***EVL MS 422**, Individual Intelligence Testing
- \***ELE ED 493**, Clinical Methods in Child Study I
- \***ELE ED 494**, Clinical Methods in Child Study II

\*These five courses are required for certification in reading by Missouri Teacher Certification regulations.

**3 Electives/Teaching Field**

Additional courses may be taken in the School of Education and/or reading area to provide a consistent program upon the recommendation of the adviser.

### Master of Education: Secondary Education and Certification

The M.Ed. in secondary education requires a minimum of 32 hours of graduate credit. Certification requires 28 hours of undergraduate coursework, making a total of 60 hours of graduate and undergraduate work. Under the combined program up to 12 hours of graduate courses may be substituted for the same number of undergraduate courses.

**Degree Requirements**

**Required and Recommended Courses**

**1 Professional Requirements**

- SEC ED 2XX**, Curriculum and Methods of Teaching \_\_\_\_\_
- SEC ED 290**, Secondary School Student Teaching

**2 Certification and M.Ed. Requirements**

- ED PSY 312**, The Psychology of Teaching and Learning
- SEC ED 385**, Problems of Teaching Reading in Secondary Schools
- ED PSY 418**, The Psychology of Adolescence
- SPC ED 412**, Psychology of Exceptional Children

- ED FND 421**, Philosophy of Education
- SEC ED 420**, The Improvement of Secondary School Teaching
- SEC ED 415**, The Secondary School Curriculum

#### Electives

Selected graduate courses, including at least eight hours in the teaching specialty or in curriculum/instruction.

#### Educational Administration Options

The options in educational administration, elementary administration and secondary administration, are part of a continuous two-phase, NCATE approved program. In the first phase, students earn the M.Ed. The second phase leads to the completion of a two-year course of study in educational administration and is designated the Advanced Certification Studies (ACS) program. Both phases are correlated with current Missouri requirements for certification as either a principal or director of elementary or secondary education in Missouri schools.

The options in educational administration are more than simply lists of courses. Each is an organized curricular offering.

Responsibility for developing appropriate individual programs rests primarily with students. They are, therefore, encouraged to take full advantage of the program planning assistance provided by advisers, especially during the early phase of the program(s).

### Master of Education: Educational Administration

The M.Ed. degree in educational administration may be earned upon completion of a minimum of 33 credit hours of a planned program. The student must submit a planned program before completing 12 of the required credit hours. The planned program must include those courses marked with an asterisk listed in the following pages under **1 Common Educational Foundations**, and **2 Administrative Foundations**. The remainder of the courses should be selected from those listed under **3 Technical Aspects of Educational Administration**, and **4 Human Aspects of Educational Administration**. The student is expected to earn from nine to twelve credit hours from **both** elective areas 3 and 4.

Persons who complete the M.Ed. in either elementary or secondary school administration and possess a Missouri elementary teaching certificate or a Missouri secondary teaching certificate qualify for either a Missouri elementary principal's or Missouri secondary principal's certificate. Under current state regulations, however, persons who complete **only** the M.Ed. meet the requirements for principals in schools rated A or AA or assistant principals in schools rated AAA.

Those who wish to become elementary or secondary principals or directors but who do not possess a Missouri

## Administration, Foundations, and Secondary Education

elementary teaching certificate or a Missouri secondary teaching certificate may have to take additional courses. Such persons should contact a member of the educational administration faculty for advice.

### Advanced Certification Studies in Educational Administration

The Advanced Certification Studies (ACS) program is a natural extension of the M.Ed. program in educational administration. It is a planned 60-credit-hour course of study. While persons completing the ACS do not receive an additional graduate degree, such as the educational specialist, they do qualify for certification as principals in AAA-rated elementary or secondary schools. The appropriate two-year course of studies also qualifies persons to be superintendents or directors of elementary or secondary education in Missouri school districts.

So that students who already have an appropriate master's degree from UMSL or another NCATE-accredited institution do not have to take an inordinate number of courses, flexibility has been planned into the ACS program. Advisers can provide assistance in evaluating previous work and planning the ACS.

### Master of Education: Educational Administration and Advanced Certification Studies

The recommended curriculum for the M.Ed. in educational administration includes 32 credit hours; for the ACS, it is 60 hours.

#### Degree Requirements

##### 1 Common Educational Foundations

(9 hours required for M.Ed.; 12 hours for ACS)

**ED FND 421**, Philosophy of Education

**\*SPC ED 412**, Psychology of Exceptional Children

**EVL MS 431**, Classroom Measurement and Evaluation I or

**ED S&R 430**, Research Design for Educators

**ED S&R 427**, Educational Statistics (ACS only)

\*Students who have already had a graduate or undergraduate course related to Psychology of Exceptional Children **need not** take SPC ED 412.

##### 2 Administrative Foundations

(15 hours required for both M.Ed. and ACS)

**ED ADM 414**, Foundations of Educational Administration

**ED ADM 411**, Theory and Organizational Development in Education and Administration

##### For elementary school administration

**ED ADM 441**, Elementary School Administration  
(Prerequisite **ED ADM 411**)

**ELE ED 425**, Elementary School Supervision

**ELE ED 410**, Elementary School Curriculum

##### For secondary school administration

**ED ADM 451**, Secondary School Administration  
(Prerequisite **ED ADM 411**)

**SEC ED 425**, Secondary School Supervision

**SEC ED 415**, Secondary School Curriculum or **SEC ED 416**, Curriculum Construction for Secondary Schools

### 3 Technical Aspects of Educational Administration

(Electives, 3-6 hours for M.Ed., 12-18 hours for ACS)

**ED ADM 460**, Legal Aspects of Educational Administration

**ED ADM 465**, State and Federal Financing of Public Education

**ED ADM 466**, Principles of Public School Finance in Missouri

**ED ADM 425**, The Administration of Organizational Change  
Strategies in Schools

**SEC ED 429**, The Department Head

**ED ADM 475**, School Building and Sites

**ED ADM 480**, Administration of Adult and Community Education

**ED ADM 481**, Programming in Community Education and Adult Education

**ED ADM 485**, Financing of Community Education

**SEC ED 418**, The Junior High School

##### For elementary school administration

**ELE ED 422**, Curriculum Construction in Elementary Schools

**ELE ED 411**, The Elementary Teacher: Humanizing Decision-Making

##### For secondary school administration

**SEC ED 420**, The Improvement of Secondary School Teaching

**SEC ED 422**, Individualizing Instruction in Secondary Schools

**SEC ED 416**, Curriculum Construction for Secondary Schools

**ED ADM 456**, Extracurricular Activities

### 4 Human Aspects of Educational Administration

(Electives, 3-4 hours for M.Ed., 12-18 hours for ACS)

**ED ADM 470**, Administration of Professional Personnel

**ED ADM 422**, Leadership in Educational Administration

**ED ADM 432**, Problems in School Public Relations

**ED ADM 416**, Educational Administration and Policy Making

**ED ADM 473**, Collective Negotiations and Educational Organizations

**ED FND 422**, Analysis of Education Issues

**ED FND 435**, History of Western Education

##### For elementary school administration

**ED PSY 417**, Psychology of the Elementary School Child

##### For secondary school administration

**ED PSY 418**, Psychology of Adolescence

### Master of Education: Educational Administration with Emphasis in Community Education

This is a 32-credit hour program for those students interested in community education.

#### Degree Requirements

##### 1 Common Educational Foundations (9 hours required)

**ED FND 421**, Philosophy of Education

**\*SPC ED 412**, Psychology of Exceptional Children or **SPC ED 313**, the Psychology of Education of Exceptional Individuals

**EVL MS 431**, Classroom Measurement and Evaluation II or

**ED S&R 430**, Research Design for Educators or

**ED S&R 427**, Educational Statistics



# Administration, Foundations, and Secondary Education

\*Students who have already had a graduate or undergraduate course related to Psychology of Exceptional Children **need not take SPC ED 412 or SPC ED 313.**

## 2 Administrative Foundations (12 hours required)

**ED ADM 411**, Theory and Organizational Development in Educational Administration

### For elementary administration community education

**ED ADM 441**, Elementary School Administration

**ELE ED 425**, Elementary School Supervision

**ELE ED 410**, Elementary School Curriculum

### For secondary administration community education

**ED ADM 451**, Secondary School Administration

**SEC ED 425**, Secondary School Supervision

**SEC ED 415**, The Secondary School Curriculum or **SEC ED 416**, Curriculum Construction for Secondary Schools

## 3 Community Education Emphasis Area (9 hours required)

**ED ADM 480**, Administration of Community and Adult Education

**ED ADM 481**, Programming in Community and Adult Education

**EDUC 490**, Internship

## 4 Recommended Electives

**ED ADM 485**, Financing of Community Education

**ED ADM 432**, Problems in School Public Relations

**ED ADM 460**, Legal Aspects of Educational Administration

**ED ADM 465**, State and Federal Financing of Public Education

**ED ADM 414**, Foundations of School Administration

## 5 Minor Area of Concentration (6 hours required for ACS)

Students are expected to demonstrate competence in at least one other field. Other fields may include sociology, political science, business administration (industrial-labor relations or other area), economics, educational research, and other approved fields. Competence may be shown by successful completion of at least six hours in one of these fields.

## 6 Internship of Field Study (Required ACS only)

**EDUC 490**, Internship

## Career Outlook

Secondary school teaching positions are more plentiful than in the recent past. Most certificated teachers can find jobs if they are willing to go where there are openings.

Teachers of mathematics and the sciences are in extremely high demand. The fields of humanities and social sciences have somewhat better immediate prospects than in the past. The preparation that teacher education graduates receive enables them to do well in service and sales positions. Job opportunities in the educational and training facets of these fields are good.

People with preparation in secondary education, educational technology, adult education, and educational administration find positions in education/training units in businesses, community agencies, and service institutions.

School administration opportunities are available to qualified individuals, particularly those who have completed advanced graduate programs. Community education is an expanding field and will need increasing numbers of people with preparation in that specialty.

## Behavioral Studies

### Faculty

- Arthur E. Smith**, Chairperson; Professor\*  
Ph.D., St. Louis University
- William L. Franzen**, Professor\*; Dean, School of Education  
Ph.D., University of Wisconsin
- Rickey L. George**, Professor\*  
Ph.D., Northwestern University
- Patricia A. Jakubowski**, Professor\*  
Ed.D., University of Illinois
- Thomas E. Jordan**, Professor\*; Associate Vice Chancellor,  
Academic Affairs; Dean, Graduate School  
Ed.D., Indiana University
- George E. Mowrer**, Professor Emeritus  
Ed.D., University of Missouri-Columbia
- Harold W. Richey**, Professor\*  
Ph.D., University of Kansas City
- Walter J. Cegelka**, Associate Professor\*  
Ed.D., Syracuse University
- Theresa A. Cristiani**, Associate Professor\*  
Ed.D., Indiana University
- Lowe S. (Sandy) MacLean**, Adjunct Associate Professor\*; Dean of  
Student Affairs  
Ed.D., Indiana University-Bloomington
- W. Ray Rhine**, Associate Professor\*  
Ph.D., University of Texas
- Steven D. Spaner**, Associate Professor\*  
Ph.D., Southern Illinois University-Carbondale
- Richard L. Thurman**, Associate Professor\*  
Ph.D., St. Louis University
- Gaylen R. Wallace**, Associate Professor\*  
Ed.D., Oklahoma State University
- W. Glenn White**, Associate Professor\*  
Ph.D., University of Missouri-Columbia
- George J. Yard**, Associate Professor\*  
Ph.D., St. Louis University
- Dorothy S. Becvar**, Assistant Professor  
Ph.D., St. Louis University
- Margaret W. Cohen**, Assistant Professor\*  
Ph.D., Washington University
- Peggy S. Filer**, Assistant Professor\*  
Ed.D., Oklahoma State University
- Toni Shinn-Strieker**, Assistant Professor  
Ph.D., Southern Illinois University-Carbondale
- Dan L. Wallace**, Adjunct Assistant Professor; Assistant Dean of  
Student Affairs
- Sharon K. Marglous**, Director  
Discovery Program, Extension Education

\*members of Graduate Faculty

### General Information

The Department of Behavioral Studies is housed on the fourth floor of Marillac Hall. Information about offerings and related matters may be obtained in the departmental office, 469 MH.

At the undergraduate level the department coordinates work in educational psychology, counseling, special education, and related areas. Offerings leading to the B.S. in education degree are available in special education.

The Special Education program prepares students to teach educable mentally retarded, emotionally disturbed, or learning disabled children. Students also receive certification as regular elementary school teachers upon completion of the curriculum. It is possible for students to become certificated as secondary school teachers with appropriate advising.

**Note** 1) Requirements for certification in Special Education will be changed, effective September, 1986. Undergraduate students may obtain certification in more than one area at this time. It is very important that course planning be accomplished with appropriate advisement.  
2) The General Assembly enacted a law during 1984 eliminating Life Teaching Certificates after September 1, 1988. The State Board of Education is authorized to develop new standards for one or more renewable professional certificates, based on specific requirements for training and experience.

At the graduate level the Department of Behavioral Studies offers work leading to the M.Ed. and requisite course work for state certification in Elementary and Secondary Guidance and Counseling, Special Education, and as School Psychological Examiner. Non-certification degree work is available in General Counseling.

Areas of emphasis in the Counseling degree program are Elementary School, Secondary School, or General Counseling. Areas of emphasis in the Special Education program are Behavioral Disorders, Learning Disabilities, Mental Retardation, and Early Childhood-Special Education. Courses concentrating in the area of the Severely Handicapped are also offered.

Students wishing to receive Missouri certification in Elementary School Counseling or Secondary School Counseling must complete all required courses in addition to holding teaching certificates valid in Missouri. The General Counseling area, for which there are no certification requirements, is only appropriate for the practice of counseling in non-school settings.

All degree students should consult with their advisers about the requirement of a scholarly paper.

## Undergraduate Studies

### Bachelor of Science in Education: Special Education

**General Education Requirements (46 hours required):**

**English and Speech** (6 hours)

**English 10**, Composition

**Speech**, 3 hours

**Note:** Students who enter UMSL with 89 or fewer hours which are applicable to a degree at UMSL must satisfactorily complete English 160, Advanced Expository Writing, or its equivalent. See University General Education Requirements. New requirements will be effective September 1, 1986.

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## Mathematics (6 hours)

**Math 50**, Structure of Mathematical Systems I

**No credit** toward graduation is granted for **Math 15**, Mathematics: Ideas and Structures, unless **Math 50** is completed.

## Science (8 hours)

**Biology (3)**

**Physical Science (3)**

**Science Lab (2)**

## Humanities (8 hours)

**Music 136**, Music Fundamentals for the Elementary School Teacher  
**plus** two courses from art, music, philosophy, and literature

## Social Science (18 hours)

**Psychology 3**, General Psychology

**Psychology 270**, Child Psychology

**Political Science 11**, Introduction to American Politics

**History 3**, American Civilization

**History 4**, American Civilization

**Geography 101**, Introduction to Geography

## Related Area Requirements (12 hours)

**PHY ED 130**, Elements of Health Education

**PHY ED 165**, Physical Education Activities in the Elementary School

**ELE ED 177 (Music 137)**, Elementary School Music

**ELE ED 179 (Art 139)**, Art Activities for Elementary Schools

## Program Requirements (24 hours)

**SPC ED 101**, Introduction to Classroom Teaching

**ED FND 111**, The School in Contemporary Society

**ED PSY 312**, Psychology of Teaching and Learning

and these **Elementary Education (ELE ED)** courses:

**230**, Children's Literature and Reading

**246**, Teaching Mathematics in the Elementary School

**336**, Teaching Language Arts and Reading, N-9

**342**, Teaching Remedial Mathematics

**385**, Teaching Reading in the Elementary School

Postdegree certification students may take ED FND 330, History of American Education in lieu of ED FND 111.

**Special Education Requirements** The following courses in **Special Education (SPC ED)** are required: **(33 hours)**

**290** Student Teaching in Special Education I

**291** Student Teaching in Special Education II

**Note:** SPC ED 290 and 291 must be taken during the same semester.

**313**, The Psychology and Education of Exceptional Individuals

**315**, Speech and Language Problems of Exceptional Children

**320**, Behavior Management

**330**, Introduction to Mental Retardation and Severe Handicaps

**331**, Counseling the Handicapped

**345**, Introduction to Emotional Disturbance and Learning Disabilities

**347**, Teaching in the Learning Disabilities Classroom

**350**, Instructional Techniques for the Emotionally Disturbed Student

**371**, Methods and Curricula for the Severely Handicapped

**372**, Screening and Diagnosis of the Developmentally Delayed

**Electives** may be taken from among the following (strongly recommended): **9 hours**

**SPC ED 322**, Teaching Mainstreamed Students

**ELE ED 241**, Teaching of Science in the Elementary School

**ELE ED 253**, Teaching of Social Studies in the Elementary School

**Total: 120 hours**

**Note:** With the adviser's consent, students in the Special Education Program may omit one of the following:

**PHY ED 130**, Elements of Health Education

**PHY ED 165**, Physical Education Activities in the Elementary School

**ELE ED 177 (Music 137)**, Elementary School Music

**ELE ED 179 (Art 139)**, Art Activities for Elementary Schools

**ELE ED 241**, Teaching of Science in the Elementary School

**ELE ED 253**, Teaching of Social Studies in the Elementary School

However, students also wishing to become certificated in elementary education must take all of these courses.

## Graduate Studies

### Master of Education: Emphasis in Elementary School Counseling

The courses listed below meet both M.ED degree and certification requirements. Following consultation with the adviser the degree may be obtained without completing all certification requirements providing:

**ED PSY 411**, Psychology of Learning Processes

**CNS ED 411**, Counseling Methods

**CNS ED 420**, Group Procedures in Counseling

**CNS ED 493**, Guidance Practicum I

**CNS ED 494**, Guidance Practicum II

are included in the program. Students should check with their advisers about teaching and non-educational work experience requirements for certification as well as course prerequisites and sequencing.

### Area of Specialization

The following **Counselor Education (CNS ED)** courses are required:

**411**, Counseling Methods

**414**, Individual Inventory

**420**, Group Procedures in Counseling

**431**, Principles and Procedures of Student Personnel Work

**493**, Guidance Practicum I

**494**, Guidance Practicum II

## Behavioral Studies

Also required:

**ELE ED 389**, The Analysis and Correction of Reading Problems in the Classroom or **ELE ED 486**, Clinical Diagnosis and Treatment of Reading Disabilities

### Psychological Foundations and Human Development

**ED PSY 411**, Psychology of Learning Processes  
**ED PSY 413**, Personality Development and Adjustment  
**ED PSY 417**, Psychology of the Elementary School Child  
**\*SPC ED 412**, Psychology of Exceptional Children

\*SPC ED 412 is required for certification if it has not been taken previously at the undergraduate or graduate level. It is not a degree requirement.

### Evaluation and Measurement

**422**, Individual Intelligence Testing  
**432**, Educational and Psychological Measurement

### Master of Education: Emphasis in General Counseling

The General Counseling emphasis area allows flexibility for developing counseling programs appropriate to particular nonschool settings. Students must have their adviser's approval before taking other than required courses.

#### Area of Specialization

The following courses in **Counselor Education (CNS ED)** are required:

**411**, Counseling Methods  
**420**, Group Procedures in Counseling  
**493**, Guidance Practicum I  
**494**, Guidance Practicum II

#### Psychological Foundations and Human Development

At least one course from the following **Educational Psychology (ED PSY)** courses:

**404**, Seminar  
**411**, The Psychology of Learning Processes  
**413**, Personality Development and Adjustment  
**417**, Psychology of the Elementary School Child  
**418**, The Psychology of Adolescence  
**497**, Problems  
 and  
**SPC ED 412**, Psychology of Exceptional Children

#### Evaluation and Measurement

At least one course from the following:

**ED S & R 427**, Educational Statistics  
**ED S & R 430**, Research Design for Educators  
**EVL MS 422**, Individual Intelligence Testing  
**EVL MS 431**, Classroom Measurement and Evaluation II  
**EVL MS 432**, Educational and Psychological Measurement

#### Electives

Remaining degree coursework is to be selected following consultation with advisers.

### Master of Education: Emphasis in Secondary School Counseling

The courses listed below meet both M.Ed. degree and certification requirements. In consultation with an adviser the degree may be obtained without completing all certification requirements providing:

**ED PSY 411**, Psychology of Learning Processes  
**CNS ED 411**, Counseling Methods  
**CNS ED 420**, Group Procedures in Counseling  
**CNS ED 493**, Guidance Practicum I  
**CNS ED 494**, Guidance Practicum II

are included in the program. Students should check with their advisers about teaching and non-educational work experience requirements for certification as well as course prerequisites and sequencing.

#### Area of Specialization

The following **Counselor Education (CNS ED)** courses are required:

**411**, Counseling Methods  
**414**, Individual Inventory  
**420**, Group Procedures in Counseling  
**431**, Principles and Procedures of Student Personnel Work  
**442**, Career Information/or **443**, Career Development  
**493**, Guidance Practicum I  
**494**, Guidance Practicum II

#### Psychological Foundations and Human Development

**ED PSY 411**, Psychology of Learning Processes  
**ED PSY 413**, Personality Development and Adjustment  
**\*SPC ED 412**, Psychology of Exceptional Children

\*SPC ED 412 is required for certification if it has not been taken previously at the undergraduate or graduate level. It is not a degree requirement.

#### Evaluation and Measurement

**EVL MS 422**, Individual Intelligence Testing  
**EVL MS 432**, Educational and Psychological Measurement

### Master of Education: Program in Special Education

Graduate students should understand that completion of the M.Ed. program in Special Education does not assure teaching certification. Students seeking the degree and certification should consult with their advisers.

Following is the recommended curriculum for students enrolled in the Learning Disabilities, Mental Retardation, Behavioral Disorders, or Early Childhood-Special Education options.



# Behavioral Studies

## Area of Specialization

Students are required to complete 9-18 hours from the following areas:

### Knowledge Base (3-6 hours)

- ELE ED 497**, Problems
- SPC ED 431**, Problems in Mental Retardation
- SPC ED 443**, Learning Disabilities
- SPC ED 450**, Introduction to Behavioral Disorders
- SPC ED 462**, Introduction to Early Childhood-Special Education

### Curriculum (3-6 hours)

- SEC ED 415**, The Secondary School Curriculum
- SEC ED 416**, Curriculum Construction for Secondary Schools
- ELE ED 411**, The Elementary Teacher: Humanizing Decision Making
- SPC ED 421**, Prescriptive Teaching of Exceptional Children
- SPC ED 430**, Education of the Mentally Retarded
- SPC ED 444**, Education of Children with Learning Disabilities
- SPC ED 462**, Education of Behaviorally Disordered Children

### Practicum (3-6 hours)

At least three hours must be taken in SPC ED 492, Practicum in Special Education.

### Psychological Foundations and Human Development (3-6 hours)

- ED PSY 411**, Psychology of Learning Processes
- ED PSY 417**, Psychology of the Elementary School Child
- ED PSY 418**, The Psychology of Adolescence
- SPC ED 412**, Psychology of Exceptional Children
- SPC ED 416**, Current Research in Psychology of Exceptional Children

### Evaluation and Measurement (3-6 hours)

- ED S&R 427**, Educational Statistics
- EVL MS 422**, Individual Intelligence Testing
- EVL MS 431**, Classroom Measurement and Evaluation II
- EVL MS 432**, Educational and Psychological Measurement

**Electives** may be chosen from the courses listed here and from other courses with approval of the adviser and department chairperson.

## Career Outlook

### Elementary and Secondary School Counselors

Future growth in the employment of school counselors will depend largely on the amount of funds that the federal government provides to the states, particularly funding for career education. Many teachers who do not intend to leave the classroom pursue this program in order to be better able to meet the needs of their students. Some graduates of the program have left the field of education and have obtained positions such as those cited under General Counseling. With little additional work the school counselor may qualify for certification as a school psychological examiner.

### General Counselors

Graduates have been employed in a wide variety of settings: as counselors in community colleges, universities, employment agencies, vocational rehabilitation agencies, probation and parole work, juvenile detention, alcoholism and drug abuse clinics, career planning and placement centers, community mental health agencies, family and children services, and various federally-funded public service projects. Additionally, graduates are employed in business and industry positions, especially in training and personnel areas. Others have moved into roles calling for research and evaluation skills.

### Special Education

The employment outlook for special education teachers continues to be favorable, especially in certain positions. In addition to special classroom teaching, graduates of the area have been employed as resource-room teachers, clinical-diagnostic personnel, itinerant teachers, educational-resource teachers, consultants, educational therapists, sheltered-workshop evaluators and in various supervisory and administrative positions in agencies and schools.

In combination with counseling, educational psychology, physical education, or other areas, careers can be planned in such occupations as vocational evaluator, counselor for special-needs individuals, and special physical educators.

# Childhood Education

## Faculty

**Richard W. Burnett**, Chairperson, Professor\*, Director of Reading Clinic

Ed.D., Indiana University

**Wallace Z. Ramsey**, Professor\*

Ed.D., University of Missouri-Columbia

**Doris A. Trojczak**, Professor\*, Associate Dean, School of Education

Ed.D., Indiana University

**Huber M. Walsh**, Professor\*

Ed.D., University of California-Los Angeles

**Doris M. Brown**, Associate Professor\*

Ph.D., St. Louis University

**Dick D. Miller**, Associate Professor\*

Ed.D., Utah State University

**Lloyd I. Richardson, Jr.**, Associate Professor\*

Ph.D., George Peabody College

**Leo V. Rodenborn**, Associate Professor\*

Ed.D., Oklahoma State University

**Thomas R. Schnell**, Associate Professor\*

Ph.D., Southern Illinois University-Carbondale

**Lori A. Geismar**, Assistant professor

Ph.D., State University of New York at Buffalo

**Anne D. Lally**, Instructor

M.Ed., University of Missouri-St. Louis

\*members of Graduate Faculty

## General Information

The faculty of the Department of Childhood Education have their offices on the third floor of Marillac Hall. Questions about departmental matters should be directed to 369 MH.

The department coordinates programs leading to the B.S. in education degree in early childhood education and elementary education. The B.S.Ed. in elementary education may also be tailored to the middle school/junior high teaching certificate. A special feature of these programs is their many opportunities to work with children in schools as part of the professional course work.

**NOTE** The General Assembly enacted a law during 1984 eliminating Life Teaching Certificates after September 1, 1988. The State Board of Education is authorized to develop new standards for one or more renewable professional certificates, based on specific requirements for training and experience.

For graduate students the Department of Childhood Education offers three programs leading to the M.Ed. in elementary education: generalized or specialized elementary education; elementary education with certification in reading; and elementary education with teaching certification.

## Undergraduate Studies

### General Education Requirements

#### Elementary Education (1-8)

#### English and Speech (9 hours)

**English 10**, Composition

**English 160**, Advanced Expository Writing

**Speech**: 3 hours

#### Mathematics (6 hours)

**Mathematics 50**, Structure of Mathematical Systems I  
and

**Mathematics 151**, Structure of Mathematical Systems II

#### Science (8 hours)

**Biological Science**: 3 hours

**Physical Science**: 3 hours

and 2 hours of a science laboratory

#### Humanities (8 hours)

**Three** courses from **two** of the following fields: art, music, philosophy, and literature.

#### Social Science (21 hours)

**Psychology 3**, General Psychology

**Psychology 270**, Child Psychology

**Political Science 11**, Introduction to American Politics **or** equivalent

**and one** of the following **history** courses:

**History 3**, American Civilization

**History 4**, American Civilization

#### and the following courses:

one **geography** course

**Economics 40**, Introduction to the American Economy or

**Economics 305**, Macroeconomics for the School Curriculum or

**Economics 306**, Microeconomics for the School Curriculum

**Sociology 10**, Introduction to Sociology or

any **anthropology** course

#### Early Childhood Education (P-3)

General education requirements are the same as for Elementary Education except that Mathematics 151, geography, and economics are **not** required.

#### Middle School/Junior High (4-9)

General education requirements are the same as for Elementary Education except that Psychology 271, Adolescent Psychology is taken in lieu of Psychology 270, Child Psychology.

## Degree Requirements

### Bachelor of Science in Education: Early Childhood Education

The early childhood program is designed for students wishing to teach and direct programs for children from pre-kindergarten through grade three. Students electing this program will work directly with young children as a part of their professional courses.

# Childhood Education

## General Education Requirements

Students are required to take the general education requirements as indicated for Early Childhood Education above.

## Program Requirements

**ELE ED 101**, Introduction to Classroom Teaching  
**ED FND 111**, The School in Contemporary Society  
**ED PSY 312**, Psychology of Teaching and Learning  
**SPC ED 313**, The Psychology and Education of Exceptional Individuals

and these **Elementary Education (ELE ED)** courses:

**230**, Children's Literature and Reading  
**336**, Teaching Language Arts and Reading, N-9  
**385**, Teaching Reading in the Elementary School  
**389**, The Analysis and Correction of Reading Problems in the Classroom

plus these **Early Childhood Education (ECH ED)** courses:

**290**, Student Teaching in Early Childhood Education I  
**291**, Student Teaching in Early Childhood Education II

**Note** ECH ED 290 and 291 must be taken during the same semester.

**312**, Principles of Early Childhood Education  
**314**, Curriculum, Methods, and Materials for Early Childhood Education  
**317**, Assessing Individual Needs for Early Childhood  
**321**, Parent and Community Resources in Early Childhood Education  
**331**, Language Acquisition and Development in Early Childhood  
**333**, Creative Experiences for Young Children  
**346**, The Acquisition of Mathematical Concepts

## Related Area Requirement

**PHY ED 130**, Elements of Health Education

Postdegree certification students may take ED FND 330, History of American Education; or ED FND 421, Philosophy of Education, in lieu of ED FND 111.

**Total: 120 hours**

## Bachelor of Science in Education: Elementary Education

The elementary education program prepares students to teach in grades kindergarten through six, non-departmentalized grades, seven and eight, and in departmentalized social studies (4-8).

## Related Area Requirements

**PHY ED 130**, Elements of Health Education  
**PHY ED 165**, Physical Education Activities for the Elementary School  
**ELE ED 177**, (Music 137), Elementary School Music  
**ELE ED 179**, (Art 139), Art Activities for Elementary School

## Program Requirements

**ELE ED 101**, Introduction to Classroom Teaching  
**ED FND 111**, The School in Contemporary Society  
**ED PSY 312**, Psychology of Teaching and Learning  
**SPC ED 313**, The Psychology and Education of Exceptional Individuals

and these **Elementary Education (ELE ED)** courses:

**230**, Children's Literature and Reading  
**241**, Teaching of Science in the Elementary School  
**246**, Teaching Mathematics in the Elementary School  
**253**, Teaching of Social Studies in the Elementary School  
**\*290**, Elementary School Student Teaching I  
**\*291**, Elementary School Student Teaching II  
**336**, Teaching Language Arts and Reading, N-9  
**385**, Teaching Reading in the Elementary School  
**389**, The Analysis and Correction of Reading Problems in the Classroom

**\*Note** ELE ED 290 and 291 must be taken during the same semester.

Postdegree certification students may take ED FND 330, History of American Education, or ED FND 421, Philosophy of Education, in lieu of ED FND 111.

**Total: 120 hours**

## Bachelor of Science in Education: Elementary Education (Middle School/Junior High Certification)

This area of specialization in elementary education prepares students to teach in middle school/junior high school, grades 4-9.

## Related Area Requirement

**PHY ED 132**, Personal Health

## Program Requirements

**ELE ED 101**, Introduction to Classroom Teaching  
**ED FND 111**, The School in Contemporary Society  
**ED PSY 312**, Psychology of Teaching and Learning  
**SPC ED 313**, The Psychology and Education of Exceptional Individuals

and these **Elementary Education (ELE ED)** courses:

**230**, Children's Literature and Reading  
**241**, Teaching of Science in the Elementary School  
**246**, Teaching Mathematics in the Elementary School  
**253**, Teaching of Social Studies in the Elementary School  
**290**, Elementary School Student Teaching I  
**291**, Elementary School Student Teaching II  
**336**, Teaching Language Arts and Reading, N-9

**Note** ELE ED 290 and 291 must be taken during the same semester.

plus these **Secondary Education (SEC ED)** courses:

**222**, Middle School/Junior High School Organization, Philosophy and Curriculum  
**385**, Problems of Teaching Reading in Secondary Schools

**Area of Concentration for State Certification** Junior high 7-9 requirements as listed by the State Department of Education.

Postdegree certification students may take ED FND 330, History of American Education, or ED FND 421, Philosophy of Education, in lieu of ED FND 111.

**Total: 120 hours**

# Childhood Education

## Graduate Studies

### Master of Education: Elementary Education

#### General Curricular Program or Specialization in Selected Curricular Areas

The M.Ed. student in elementary education may elect either of these programs. Please note, however, that in either case the degree is the Master of Education in Elementary Education. Diplomas and transcripts do not show areas of specialization nor are special certificates awarded.

#### 1 Core Competencies (12 hours)

To include ELE ED 410, Elementary School Curriculum; ELE ED 411, The Elementary Teacher: Humanizing Decision-Making; and six hours selected, in consultation with advisers, from among cognate fields or professional education.

#### 2 Content Competencies (12 hours)

Both programs require a three-phase sequence as follows: Students desiring to specialize through a sequence of courses should select at least nine hours in one of the following areas: Children's Literature, Early Childhood, Language Arts, Mathematics Education, Reading, Science Education, Social Studies Education, or Special Education (ELE ED 425, Elementary School Supervision is also recommended for specialist sequence). Students who elect a general sequence should take no more than six hours in any one area.

#### 3 Curricular Applications Competencies (9 hours)

Students must select, in consultation with their advisers, a measurement course, and complete the following: ELE ED 422, Curriculum Construction in Elementary Schools, and ELE ED 423, Curriculum Implementation in the Elementary School.

Upon completion of ELE ED 410 and 411 in phase one, each candidate selects a curricular area or areas, identifies an adviser from the childhood education faculty, and plans appropriate course sequences. A candidate enrolling in the specialist program should select an adviser in the area of specialization.

The sequence of courses, ELE ED 410 and 411 should be taken at the beginning of the program; ELE ED 422 and 423 constitute the final two program courses.

Electives should be selected according to candidates' needs and/or interests.

#### Emphasis in Reading

The M.Ed. program with emphasis in reading is designed to enable candidates to further their competencies as reading teachers and prepares them for positions as remedial reading specialists, reading consultants, and/or for further graduate study. The minimum required and recommended courses are as follows:

#### 1 Core Requirements

At least one graduate-level course in each of the following areas: learning psychology; research, statistics, and measurements; and elementary curriculum.

#### 2 Courses in Reading

The following required courses must be taken in sequence.

**Courses denoted by asterisks are required for certification in remedial reading by Missouri teacher certification regulations.** Students, with their advisers' permission, may substitute other courses for any requirement if they have had a recent upper-class undergraduate course covering the same material. Required are:

**\*ELE ED 385**, Teaching Reading in the Elementary School, or **SEC ED 385**, Problems of Teaching Reading in the Secondary School

these **Elementary Education (ELE ED)** courses:

**\*486**, Clinical Diagnosis and Treatment of Reading Disabilities

**\*493**, Clinical Methods in Child Study I

**\*494**, Clinical Methods in Child Study II

and also:

**ELE ED 482**, Problems and Research in Teaching Elementary School Reading

**\*EVL MS 422**, Individual Intelligence Testing

**Note SPC ED 412**, Psychology of Exceptional Children, is required for certification if it has not been taken previously at the undergraduate or graduate level. It is not a degree requirement.

#### 3 Electives

Examples:

**English 220**, Development of the English Language

**ED FND 421**, Philosophy of Education

**SEC ED 385**, Problems of Teaching Reading in the Secondary School, or **ELE ED 385**, Teaching Reading in the Elementary School

**ADU ED 311**, Teaching Basic Reading Skills to Adults

**ELE ED 484**, Developmental Reading (K-13)

this **Elementary Education (ELE ED)** course:

**488**, Supervision of School Reading Programs

Other courses may be selected from cognate fields after conferring with an adviser in reading.

#### Certification Options

A combined M.Ed. and certification option exists. Options include Elementary Education (1-8), Early Childhood Education (P-3), and Middle School/Junior High (4-9). Students should consult certification advisers. Graduate credit will not be given for courses at the 100 or 200 level.



## Childhood Education

### Career Outlook

Undergraduate and graduate degrees in Early Childhood Education and Elementary Education are most directly applicable to teaching at the level appropriate to the program emphasis. Increasing specialization of teaching assignments and downward extensions of "ages of schooling" continues to open employment opportunities within a somewhat restricted employment field. As in the past, early childhood and elementary education graduates at all degree levels

continue to be attractive candidates for employment in many positions which require (or are well suited to) training in social and behavioral sciences. Positions in constant contact with and service to the general public such as sales, service, public relations, and general business are most common examples. Future expansions of opportunities in schools are tied to population growth, increased specialization of services, and reduction in ratios between professional staff and children served.

# Physical Education

## Faculty

**Bruce A. Clark**, Chairperson; Assistant Professor\*  
Ph.D., University of Illinois

**Kathleen M. Haywood**, Associate Professor\*  
Ph.D., University of Illinois-Urbana-Champaign

**Thomas J. Loughrey**, Associate Professor\*  
Ph.D., University of Iowa

**Charles G. Smith**, Associate Professor\*, Director of Athletics  
M.S., Washington University

**Gail R. Chew**, Lecturer

M.Ed., University of Missouri-St. Louis

**Carol A. Loughrey**, Lecturer

M.A., Indiana State University

\*members of Graduate Faculty

## General Information

The Department of Physical Education is housed on the second floor of the Mark Twain Building. Information about offerings and related matters may be obtained in the departmental office, 225 Mark Twain.

The department coordinates work in physical education. At the undergraduate level this work leads to the B.S. in education degree with emphasis in either elementary or secondary physical education.

**NOTE** The General Assembly enacted a law during 1984 eliminating Life Teaching Certificates after September 1, 1988. The State Board of Education is authorized to develop new standards for one or more renewable professional certificates, based on specific requirements for training and experience.

The master of education degree in elementary and secondary education provides courses for graduate students who choose physical education as their teaching field. Graduate students should consult their advisers about the requirements.

## Undergraduate Studies

### Bachelor of Science in Education: Physical Education

#### General Education Requirements (42 hours required):

Bachelor's degree candidates in physical education must complete the University General Education Requirements and Missouri certification requirements. (Consult an education or physical education adviser for specifics.)

**Electives** 11-14 hours

## Program Requirements

Students must pass Proficiencies in first aid, cardio-pulmonary resuscitation, personal physical fitness, and life saving. The proficiency evaluations are regularly scheduled each semester. Contact the department for further information. Students are urged to complete these requirements as early in the program as possible. **Successful completion is required prior to student teaching.** No credit hours are granted for satisfying this requirement.

## Elementary School Emphasis

Students are required to take at least 12 hours in the analysis and teaching course package in Physical Education (PHY ED).

**121**, Analysis and Teaching of Physical Activities I

**122**, Analysis and Teaching of Physical Activities II

**123**, Analysis and Teaching of Physical Activities Laboratory

The following is a list of laboratories for PHY ED 123:

Golf, Bowling, and Archery  
Ballroom, Folk, and Square Dancing  
Racquet Sports  
Gymnastics and Tumbling  
Football, Wrestling, and Personal Defense  
Soccer/Basketball  
Rhythmic Activities and Modern Dance  
Track and Field  
Aquatics  
Baseball/Softball/Volleyball

The following theory of **Physical Education (PHY ED)** courses are required: **(38 hours)**

**130**, Elements of Health Education

**165**, Physical Education Activities in the Elementary School

**232**, Sports Medicine

**261**, Physical Activity for the Exceptional Learner

**275**, Psychology of Sport

**276**, Sociology of Sport

**277**, History and Philosophy of American Physical Education and Sport

**280**, Human Anatomy and Physiology

**282**, Physical Growth and Motor Development

**283**, Kinesiology

**284**, Physiology of Human Exercise

The following **Professional Education** courses are required **(28 hours):**

**PHY ED 101**, Introduction to Classroom Teaching

**ED FND 111**, The School in Contemporary Society

**Psychology 270**, Child Psychology

**ED PSY 312**, Psychology of Teaching and Learning

**SPC ED 313**, The Psychology and Education of Exceptional Individuals

**PHY ED 268**, The Curriculum and Methods of Teaching Physical Education

**PHY ED 290**, Student Teaching in Physical Education I

**PHY ED 291**, Student Teaching in Physical Education II

**Total: 120 hours**

# Physical Education

## Secondary School Emphasis

Students are required to take 12 hours of analysis and teaching courses in Physical Education (PHY ED).

- 121, Analysis and Teaching of Physical Activities I
- 122, Analysis and Teaching of Physical Activities II
- 123, Analysis and Teaching of Physical Activities Laboratory

The following is a list of laboratories for the course PHY ED 123:

- Golf, Bowling, and Archery
- Ballroom, Folk, and Square Dancing
- Racquet Sports
- Gymnastics and Tumbling
- Football, Wrestling, and Personal Defense
- Soccer/Basketball
- Rhythmic Activities and Modern Dance
- Track and Field
- Aquatics
- Baseball/Softball/Volleyball

The following theory of **Physical Education** courses are required (**32 hours**):

- 166, Physical Education Activities in the Elementary School
- 232, Sports Medicine
- 261, Physical Activity for the Exceptional Learner
- 275, Psychology of Sport
- 276, Sociology of Sport
- 277, History and Philosophy of American Physical Education and Sport
- 280, Human Anatomy and Physiology
- 282, Physical Growth and Motor Development
- 283, Kinesiology
- 284, Physiology of Human Exercise

The following **Professional Education** courses are required (**31 hours**):

- PHY ED 101, Introduction to Classroom Teaching
- ED FND 111, The School in Contemporary Society
- Psychology 271, Adolescent Psychology
- ED PSY 312, Psychology of Teaching and Learning
- SPC ED 313, The Psychology and Education of Exceptional Individuals
- PHY ED 268, The Curriculum and Methods of Teaching Physical Education
- PHY ED 290, Student Teaching in Physical Education I
- PHY ED 291, Student Teaching in Physical Education II

**Total: 120 hours**

## Athletic Coaching Minor

An Athletic Coaching Minor is available (minimum of 20 hours). See a Physical Education adviser for specific content.

## Graduate Studies

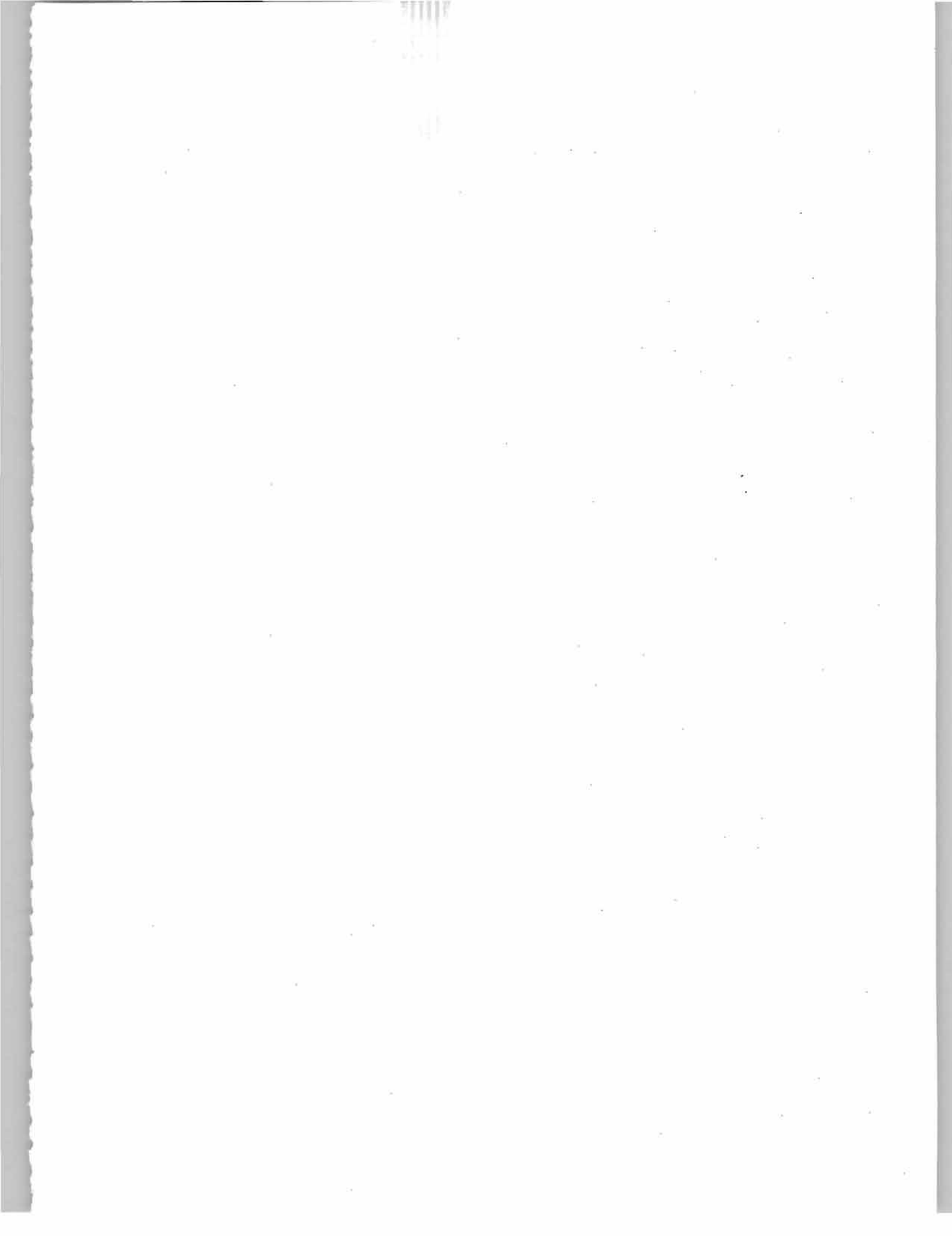
### Master of Education: Elementary or Secondary Education with Physical Education as Teaching Field

Students in elementary or secondary education master's degree programs may elect Physical Education as their teaching field. For further information about this option consult an adviser or faculty from the Physical Education department.

## Career Outlook

The employment outlook for physical educators has been improving, especially at the elementary school level. In addition to elementary or secondary physical education teaching, graduates may want to consider coaching, athletic training, dance, research, and gerontological careers. Graduates have been employed as specialists in recreation and physical fitness organizations, as special physical educators and coaches.

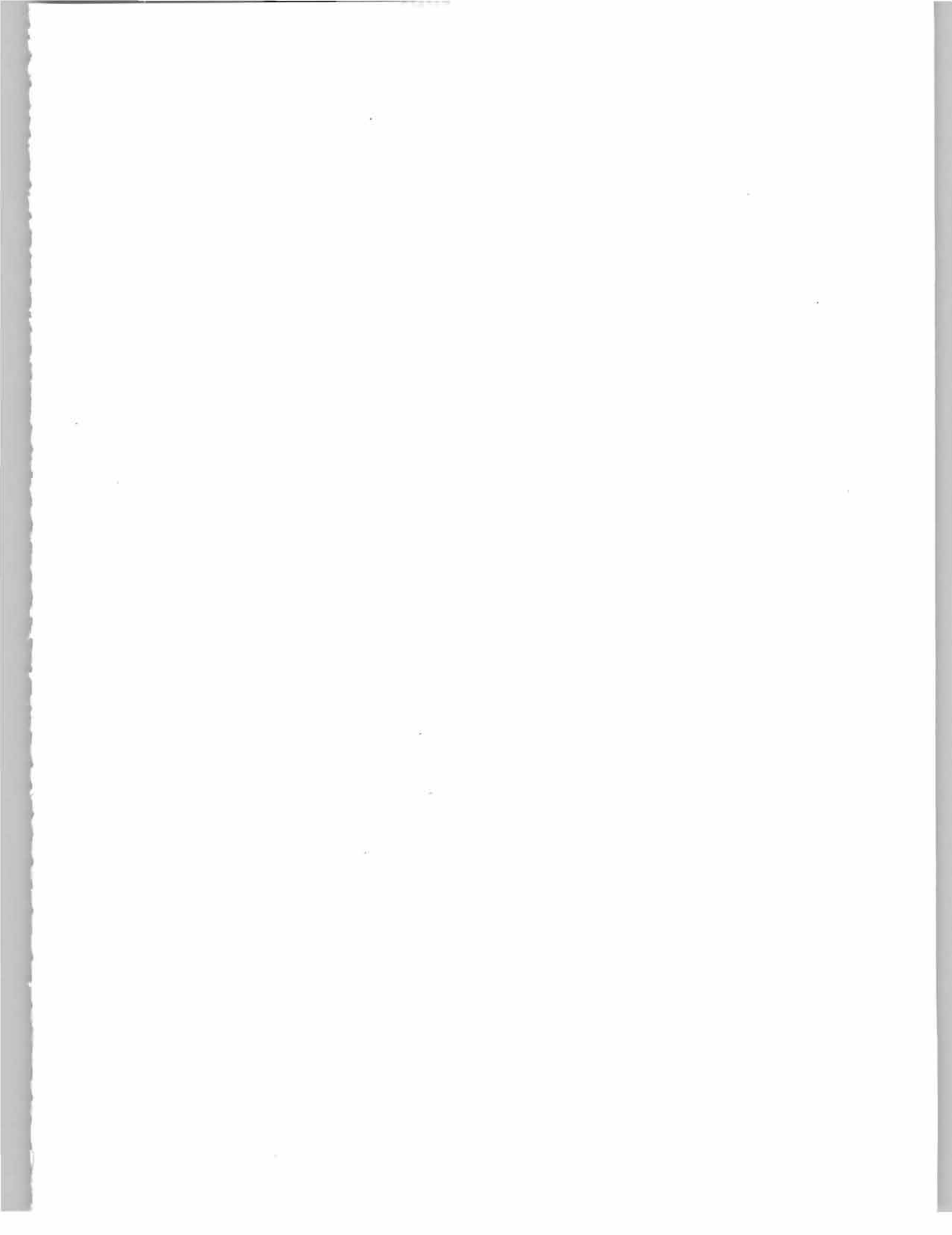
Students are urged to consult with their advisers in order to broaden the career options available by combining physical education with other specialties for positions in community agencies, business, and industry.





# Evening College





## Evening College

### Administration

**Joy E. Whitener**, Dean; Professor, School of Education  
Ed.D., Washington University

**Donald G. Bowling**, Assistant Dean  
M.A., Northeast Missouri State University

**Harry Gaffney**, Assistant Dean  
Ph.D., St. Louis University

### General Information

The Evening College provides undergraduate degree programs for students who, for various reasons cannot attend day classes. In addition, persons who want to maintain their professional competence or broaden their educational background without pursuing degree work will find a broad array of courses which may be taken for credit or on an audit basis.

Recognizing the value of continuing education and career advancement, many St. Louis institutions, businesses, and industries encourage their employees to avail themselves of the educational opportunities offered by the Evening College. The Veterans Administration has approved either full-time or part-time study for educational benefits.

Since most Evening College students are employed full-time, they normally carry less than a full academic load. To enable students to carry as many courses as they wish, the Evening College schedules classes between 5:30 and 9:35 pm. Classes and degree programs are conducted according to the same standards as the day program.

**Academic Advising and Program Planning** New students are encouraged to consult with an academic adviser to help develop programs appropriate to their needs. Appointments may be made by calling the Evening College, 553-5162.

Transfer students or students with 40 or more credit hours who wish to be assigned advisers and to graduate from the Evening College must file declaration of degree candidacy forms.

**Facilities** The facilities of the University, including the library, laboratories, cafeteria, bookstore, health service, placement service, and admissions office are open in the evening. Evening College students are also eligible to participate in any of the University sports programs that interest them. The athletic facilities of the Mark Twain Building are available; for information on hours, contact the athletics office at 553-5641.

**Alpha Sigma Lambda** The Beta Epsilon Chapter of Alpha Sigma Lambda is a national honorary scholastic society for Evening College students. To be eligible for membership, a student must have completed at least four semesters of college or university work, completed a minimum of 30 semester hours in the Evening College, have a cumulative grade point average of 3.2, and be enrolled in the Evening College. Individuals already in possession of a college degree are not eligible for membership.

### Degree Programs

**General Education Requirements** All candidates for a degree through the Evening College must meet the University general education requirements.

**Bachelor of Arts** Majors available for the B.A. degree are biology, chemistry, economics, English, history, mathematics, physics, political science, psychology, sociology and speech communication, and sociology. For further information, consult the appropriate departmental section of the College of Arts and Sciences portion of this *Bulletin*.

**Bachelor of Science** The B.S. degree is available in applied mathematics, chemistry, computer science, economics, physics, public administration, and sociology. For further information, consult the appropriate departmental section of the College of Arts and Sciences portion of this *Bulletin*.

**Specialized Bachelor's Degrees** Also available are the specialized Bachelor of Science in Administration of Justice (B.S.A.J.), the Bachelor of Science in Business Administration (B.S.B.A.), and the Bachelor of Science in Education (B.S.Ed.). The B.S. in education offers specialization in any of the following: early childhood education, elementary education, middle school/junior high school, special education, and secondary education (in 11 teaching areas). Students should consult the appropriate departmental section of the College of Arts and Sciences portion of this *Bulletin* or the sections for the School of Business Administration or the School of Education.

**Bachelor of Social Work** The B.S.W. degree program is designed to prepare persons for employment in social welfare agencies, schools, hospitals, correctional institutions, or day care, geriatric, or rehabilitation centers. Individuals currently working in social welfare settings can improve their skills or increase their opportunities for job advancement. For further information, consult the Social Work section of this *Bulletin*.

### Bachelor of General Studies Degree

The Bachelor of General Studies degree (B.G.S.) is offered only through the Evening College. It is designed to provide mature students with a meaningful alternative to traditional degree programs. It appeals to a variety of students whose circumstances, goals, and aspirations are different from those of the "typical" college student. The B.G.S. program provides the flexibility needed to enable students, with careful advisement, to develop individualized programs of study.

#### Admission Requirement for the B.G.S. Program

Candidates for the B.G.S. degree must be admitted to the Evening College and must complete an application for admission to the program. Applications must be approved by the General Studies Committee and the Evening College dean. The criteria for admission are:

1 Students must be mature and their programs of study reasonable.

## Evening College

**2** Students should have a broad education and must have demonstrated the equivalent of academic proficiency required for any other undergraduate degree at UMSL.

**3** Study programs should be structured to meet students' unique educational goals and should not be readily available under any other UMSL degree program.

**4** That the degree will better qualify the recipients to deal with their life goals than if they had some other degree.

### Degree Requirements for the B.G.S. Program

**Personal Emphasis Area** In consultation with an adviser, students shall develop a personal emphasis area of at least 30 hours that meets their educational goals. Regardless of the focus, theme, or purpose, the personal emphasis area should result from self-examination and contribute to self-realization and an advanced level of academic competence and achievement. The study program must be approved by the faculty adviser, dean, and General Studies Committee. Students and advisers periodically review the progress toward attaining the goal or objective and make appropriate modifications where necessary, subject to the dean's approval.

**Hour and Grade Requirements** The degree requires completion of 120 semester hours with a 2.0 grade point average overall and in the personal emphasis area. No more than 30 hours may be taken in any one department without written consent of the department chairperson. At least 45 hours must be earned in courses beyond the introductory level. A minimum of 24 hours of graded credit must be completed in residence at UMSL, of which 15 hours must be in the personal emphasis area. No more than 24 hours may be taken on a satisfactory/unsatisfactory basis.

**Credit for Experience, Special Projects, Examinations, and Non-Traditional Forms of Study** Credit may be earned through the College Level Examination Program in accordance with University policy or through examinations proposed or approved by University departments. Credit may also be earned through correspondence study, supervised independent research study, and college-level courses offered by television or similar education media. Students are responsible for obtaining approval for credit applied under this option.

Students may also receive credit for vocational experience, community service projects, or cultural activities after they have completed 24 hours of course work in residence.

**Vocational Experience** Credit may be granted for vocational experience when related to the personal emphasis area. Credit cannot exceed three semester hours for each year of experience with a maximum of 12 hours allowed only in exceptional circumstances. Petitions for vocational experience credit must be accompanied by a job description verified by the employer or similar appropriate evidence. Credit may be granted only upon recommendation of the adviser and approvals of the dean and the General Studies Committee.

**Community Service Projects** Credit not exceeding six hours may be earned for participation in approved community service projects or cultural activities. The projects or activities must be formulated by the student and carried out under the supervision of a faculty member with the approval of the adviser, dean, and General Studies Committee. Students must submit a written report approved by the supervisor upon completion of the projects or activities.

### Minors

**Minor in Employee Training and Development** The Evening College and the School of Business Administration offer a minor in employee training and development. The requirements are:

**Business Administration 318, or Psychology 318**, Industrial Psychology

**Business Administration 319**, Employee Training and Development

**ED PSY 312**, Psychology of Teaching and Learning

**ED TEC 340**, Selection and Utilization of Educational Media

**Psychology 219**, Research Methods

**One** additional course selected from these approved electives:

**Business Administration 309**, Personnel Management

**Sociology 354**, Occupations and Their Work Settings

**Speech Communication 141**, Business and Professional Speaking

Students should consult with an adviser when planning their programs. A 2.0 grade point average is required for the minor. No courses may be taken on a satisfactory/unsatisfactory basis. At least 12 credits of those required must be completed in residence at UMSL.

This minor is designed for personnel managers in small companies and training managers or personnel specialists in larger companies. The required 18 hours, including the approved elective course, enable the student to be exposed to different skills essential for the occupational area.

Minors are also available in administration of justice, biology, business administration, chemistry, computer science, economics, English, history, mathematics, political science, psychology, sociology and speech communication. For currently offered minors, consult your adviser.

### Certificates

Certificate programs are available in women's studies and writing. For more information consult the Certificate Programs section of this *Bulletin*.



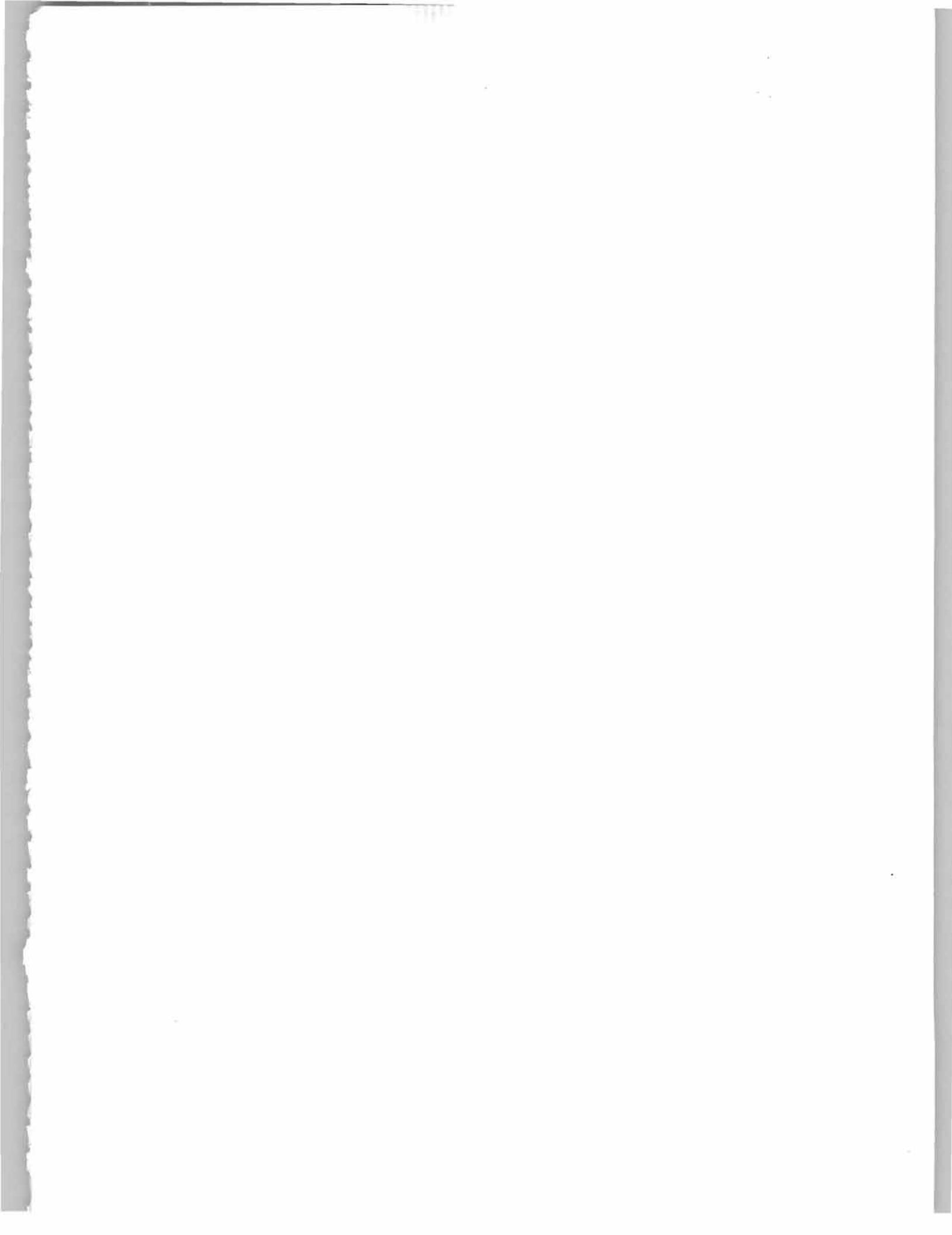
## Evening College

### Course Areas

The Evening College offers courses in 26 academic areas: administration of justice, anthropology, art, astronomy, biology, business administration, chemistry, computer science, economics, education, English, French, geography, geology, German, history, mathematics, music, philosophy, physics, political science, psychology, sociology, social work, Spanish, and speech communication.

### Career Outlook

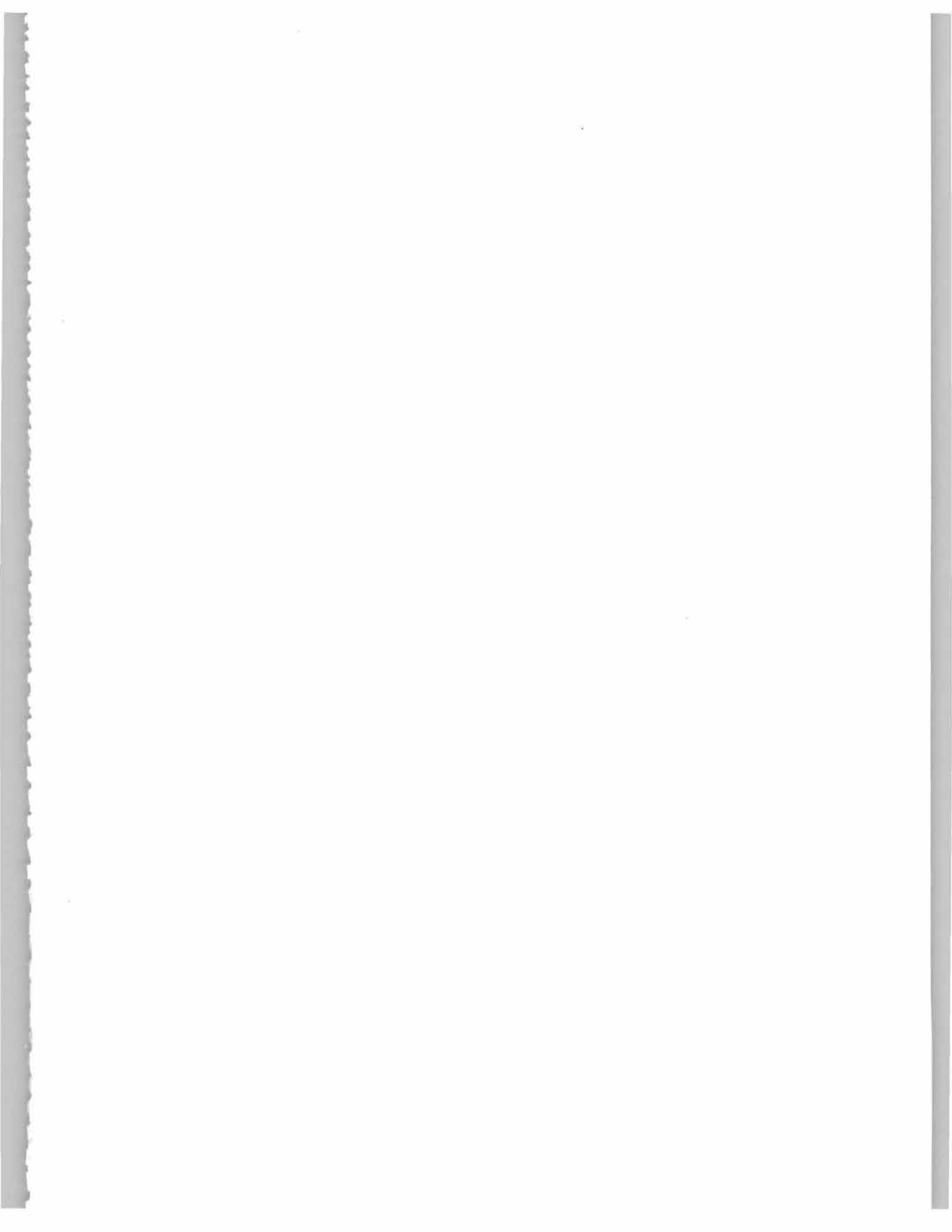
Many graduates of the Evening College have found their careers advanced upon obtaining their degree. Some have entered new careers in mid-life and others have found personal satisfaction in the acquisition of knowledge for its own sake. The Evening College has a number of professional counselors with extensive experience in adult interests and motivations who will help students make vocational choices or give indepth personal counseling. For an appointment, call the Evening College office.





# Inter-School Studies







# Public Policy Administration Graduate Degree Program

## Faculty

**Andrew D. Glassberg**, Director of MPPA Program; Associate Professor of Public Policy Administration and Political Science\*  
Ph.D., Yale University

**E. Terrence Jones**, Professor of Public Policy Administration and Political Science; \* Dean, College of Arts and Sciences  
Ph.D., Georgetown University

**George J. McCall**, Professor of Public Policy Administration and Sociology; \* Chairperson, Department of Sociology  
Ph.D., Harvard University

**Eugene J. Meehan**, Professor of Public Policy Administration and Political Science\*  
Ph.D., London School of Economics

**Donald Phares**, Professor of Public Policy Administration and Economics; \* Director, Center for Metropolitan Studies  
Ph.D., Syracuse University

**Dennis L. Dossett**, Associate Professor of Public Policy Administration and Management\*  
Ph.D., University of Washington

**James M. Krueger**, Assistant Professor of Public Policy Administration and Accounting\*  
D.B.A., Indiana University

**Michael V. Leonesio**, Assistant Professor of Public Policy Administration and Economics\*  
Ph.D., Cornell University

**J. Frederick Springer**, Assistant Professor of Public Policy Administration and Political Science\*  
Ph.D., University of California-Davis

**Rodney D. Wright**, Adjunct Assistant Professor of Public Policy Administration and Political Science  
Ph.D., Washington University

\*member of Graduate Faculty

The Master's program in Public Policy Administration (MPPA) is an interdisciplinary program designed to prepare students for managerial positions in the public sector or in agencies having substantial interaction with the public sector. The program is a unit of the Graduate School. Faculty are on joint appointment in public policy administration and in either economics, political science, sociology, or business administration. The program includes courses in policy analysis, public administration, management, accounting, and economics in the basic curriculum. The University of Missouri-St. Louis' MPPA program differs from existing programs available in the Missouri-Illinois region in its interdisciplinary nature and emphasis on the development of analytic and administrative skills. It is designed to meet the needs of prospective full-time students as well as those who wish to earn a degree in the evening while continuing to work.

## Facilities and Cooperative Centers

In addition to the distinguished doctoral-level faculty in public policy administration, students have access to courses and faculty in other social sciences, in the Center for Metropolitan Studies, and in the Center for International Studies. The full facilities of the office of Computing and Telecommunications, including the urban data program, are available. UMSL is also a member of the Inter-University Consortium for Political and Social Research.

## Admission Requirements

Applicants to the MPPA program must meet the general requirements for admission to Graduate School as explained in the Graduate Study section of this *Bulletin*. Students entering the MPPA program may be required to take up to 9 hours of prerequisites in mathematics, accounting, and social science. Up to three hours of graduate-level work at UMSL, taken to meet prerequisite requirements, may be applied to the 42 hours required for the MPPA degree.

## Degree Requirements

The program includes 42 hours, 27 in the core curriculum sequence and 15 in a special field chosen by students in consultation with their advisers.

## Core Curriculum

All candidates for the MPPA degree must complete 27 hours in the Core Curriculum sequence as follows:

### Administration

**Public Policy Administration 460**, Organizational Behavior and Administrative Processes

**Public Policy Administration 440**, Proseminar in Public Policy Administration

### Accounting and Budgeting

**Public Policy Administration 418**, Governmental Budgeting

### Economics

**Public Policy Administration 421**, Public Sector Microeconomics

### Computer

**Public Policy Administration 480**, Introduction to Computer Programming and Management Applications

### Policy Analysis

**Public Policy Administration 410**, Introduction to Policy Analysis

**Public Policy Administration 419**, Cases in Policy Analysis

### Statistics and Applications

**Public Policy Administration 401**, Introduction to Policy Research and either of the following:

**Public Policy Administration 365**, Econometrics or

**Public Policy Administration 475**, Evaluation Research

A full range of graduate-level offerings in the social science departments and School of Business Administration are available for specialized training. Among the possible fields are urban transportation, local finance and budgeting, housing, administration of justice, planning, community development, and international administration.

A thesis is not required, but students must complete written analyses as part of their course work and/or internships. There is also an exit project examining a problem in public policy administration in the final semester.

## Public Policy Administration Graduate Degree Program

### Internships

There currently exists a need for well-trained policy administrators and analysts. Frequent contact is maintained with public practitioners and public officials in the St. Louis metropolitan area, providing valuable input for program development, creation of a wide variety of internship assignments, and assistance with a vigorous placement program for MPPA graduates. Interns may be placed in assignments in planning agencies, city managers' offices, administrative departments, and budgeting offices.

Up to six hours may be earned through an internship. MPPA students employed in public agencies may receive up to six hours of credit for internships in those agencies. To do so, students must develop, in consultation with their advisers, special research projects outside the scope of the regular employment duties. Credit is granted after successful completion of the project and a written paper at the end of the semester.

### Typical MPPA Program (full-time student with all prerequisites)

#### First Semester

**Public Policy Admin. 460**, Organizational Behavior and Administrative Processes  
**Public Policy Admin. 480**, Introduction to Computer Programming and Management Application  
**Public Policy Admin. 410**, Introduction to Policy Analysis  
**Public Policy Admin. 440**, Proseminar in Public Administration  
 Total: 12 hours

#### Second Semester

**Public Policy Admin. 418**, Governmental Budgeting  
**Public Policy Admin. 401**, Introduction to Policy Research  
**Public Policy Admin. 421**, Public Sector Microeconomics and 3 hours of special field electives or internships  
 Total: 12 hours

#### Third Semester (Summer)

6 hours of special field electives or internship  
 Total: 6 hours

#### Fourth Semester

**Public Policy Admin. 475**, Evaluation Research  
**Public Policy Admin. 419**, Cases in Public Policy Analysis and 6 hours of special field electives or internship  
 Total: 12 hours

## Career Outlook

The current outlook for graduates of the interdisciplinary Master's Degree in Public Policy Administration program is quite promising. Recent graduates of this program have found careers as budget analysts, personnel analysts, transportation planners, and human resources planners with local, regional, state, and federal agencies.

## Gerontological Studies

### Faculty

**Robert J. Calsyn**, Interim Director of Gerontology Studies  
 Ph.D., Northwestern University

A Certificate in Gerontological Studies, a multi-disciplinary course of study, is available. This program provides an opportunity for students to obtain a focused speciality in gerontology in addition to their majors. It utilizes offerings in the College of Arts and Sciences and the Schools of Business Administration, Nursing and Education. It is appropriate for students in the College of Arts and Sciences or any of the Schools of the University.

### Certificate Requirements

A student may earn the Certificate in Gerontological Studies by completing a total of fifteen hours. These fifteen hours must be chosen from at least three of the six topic areas listed below. Examples of courses are given for each of the topic areas.

### Topic Areas

#### 1 Natural Sciences

**Biology 111**, Issues in Geriatric Health Care (2) (same as **Nursing III**)  
**Biology 311**, Physiology of Aging (3)

#### 2 Social and Policy Issues

**Social Work 80**, Community Resources in the Field of Aging (1)  
**Sociology 361**, Social Gerontology (3)  
**Sociology 380**, Selected Topics in Social Policy: Gerontology (2)

#### 3 Business and Management

**Business Administration 395**, Business Administration Seminar: Aging in the Work Place (3)

#### 4 Psychology and Counseling

**CNS ED 404**, Seminar Counseling the Older Adult (3)  
**Psychology 272**, Adult Development and Aging (3)  
**Psychology 280**, The Psychology of Death and Dying (3)  
**Psychology 295**, Field Placement: Gerontology (3)  
**Psychology 373**, Aging in Contemporary Society (3)  
**Social Work 330**, Social Work Practice with the Aged (3)

#### 5 Physical and Health Education

**Physical Education 190**, Clinical Experience in Physical Gerontology (3)  
**Physical Education 292**, Internship in Physical Gerontology (variable)  
**Physical Education 330**, Prescribing Physical Activity (3)

#### 6 Humanities

**Art 74**, Special Topics in Studio Art: Teaching Art to Older People (1)  
**History 300**, Selected Topics in History: Oral History (3)  
**Philosophy 156**, Medical Ethics (3)

No more than 3 credit hours from Research/Practicum Experience courses may be applied. The Research/Practicum must have the approval of the Director of the Gerontology Program. Courses taken to fulfill requirements for the Certificate in Gerontological Studies may not be taken on a satisfactory/unsatisfactory basis. For more information, contact the director.



# School of Nursing



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# School of Nursing

## Faculty

**Shirley A. Martin**, Dean, Professor  
R.N., Ph.D., St. Louis University  
**Mary Reardon Castles**, Professor\*  
R.N., Ph.D., St. Louis University  
**Ruth L. Jenkins**, Assistant Professor\*  
R.N., Ph.D., St. Louis University  
**Karen Kelly Schutzenhofer**, Assistant Professor  
R.N., Ed.D., Southern Illinois University at Edwardsville  
**Janice A. Spikes**, Assistant Professor  
R.N., Ph.D., University of Texas-Austin  
**Sharon B. Cannon**, Assistant Instructor  
R.N., Ed.D., Southern Illinois University at Edwardsville

\*member of graduate faculty

## General Information

**About the Faculty** The School of Nursing faculty includes accomplished leaders in professional nursing and research. The dean serves as a leader in both state and national professional organizations. Faculty members are clinical specialists in the various areas of nursing practice and research. Research interests include developmental disabilities, stress management, assertiveness, nursing management, death and dying, and alcoholism.

**The School of Nursing** A national movement in the nursing profession encourages preparation for entry into professional nursing practice to begin at the baccalaureate level. The majority of practicing registered nurses today have earned either a diploma in nursing from a hospital school of nursing or an associate degree in nursing. The UMSL School of Nursing offers a baccalaureate program for registered nurses in the St. Louis area. The program is designed so that studies may be pursued on either a full- or part-time basis. Qualified students are admitted each semester. The UMSL School of Nursing is located on the South Campus Complex.

**Bachelor of Science in Nursing Degree** The bachelor of science in nursing program is designed to provide the registered nurse with the opportunity to continue nursing education at the baccalaureate level. The curriculum builds on the student's knowledge and skills acquired through diploma or associate degree education as well as nursing practice experience. The expansion of nursing practice into a variety of settings will provide opportunities to apply knowledge from nursing and related disciplines. Recent employment in clinical nursing is recommended.

**Assumptions** The bachelor of science in nursing degree (B.S.N.) is designed to build on the student's previous education and experience and is based on the following assumptions:

- 1) Most of the students will be employed full-time and attend the program on a part-time basis.
- 2) Registered nurse students are adult learners, and the concepts and techniques related to adult learners are appropriate for this program.

3) Registered nurse students are licensed practitioners and do not require the same type of clinical activities found in generic programs.

4) Lower-division nursing courses, completed either in an associate degree program or a hospital diploma program, provide a base of nursing content for baccalaureate nursing education taught at the upper-division level.

5) Quality baccalaureate nursing education can be designed to build on students' prior education and experience without duplicating content or experiences.

6) Students enrolled in the upper-division nursing program have an academic background equivalent to the academic background required for junior standing in any undergraduate program at the University of Missouri-St. Louis.

**Purposes** The purpose of the program is to provide the registered nurse student with:

- 1) Upper-division content in general education and nursing courses necessary to practice at the primary level.
- 2) The foundation for continued personal and professional development as well as preparation for graduate study.
- 3) The ability to adapt to a rapidly changing health care delivery system.
- 4) The knowledge and skills necessary to practice in episodic and distributive health care settings within a urban area.

**Accreditation** The School of Nursing is fully accredited by the National League for Nursing.

## Admission Policies

### Admission Requirements

A candidate for admission to the School of Nursing:

- 1) must meet all requirements for admission to the University of Missouri-St. Louis (see Undergraduate Admissions section in this *Bulletin*);
- 2) must be a graduate of either a diploma or associate degree program in nursing;
- 3) must hold a current license as a registered nurse in the state of Missouri;
- 4) must have a cumulative grade point average of 2.5 (4.0 scale) on all previous college-level course work;
- 5) must have at least 30 hours of college credit applicable to a degree.

### Credit Requirements for Admission

**Associate Degree or Diploma Nursing** The curriculum of the upper-division nursing major is based on the lower-division program of study in general education which most associate degree graduates will have acquired. Currently most diploma graduates will have these credits as well because hospital schools of nursing are utilizing college courses for their general education requirements.

For the diploma nurse who graduated before hospital schools affiliated with colleges, various testing methods can be used to grant college credit, such as NLN science scores and CLEP (College Level Examination Program).

## School of Nursing

**Nursing Credit by Examination** In order to grant college credit for basic nursing knowledge and skill, the student must successfully complete four written placement examinations. The four examinations cover basic nursing knowledge in medical-surgical nursing, nursing of children, maternity nursing and psychiatric nursing.

Twenty-eight hours of college credit will be recorded on the student's transcript following successful completion of the four examinations. The student must begin the nursing sequence within two years of completion of the examinations.

Additionally, provisions have been made with some St. Louis area nursing schools to facilitate transfer of credit. For example, admission requirements are based on the nursing programs offered at the St. Louis Community Colleges. Therefore, graduates of these programs with a 2.5 grade point average have met all admission requirements.

General education courses are taught at UMSL for Barnes Hospital School of Nursing and Jewish Hospital School of Nursing, and the nursing placement examinations are given within the nursing course of study at each hospital, thereby facilitating the graduates' articulation into the BSN program.

### Acceptance into the B.S.N. Program

Following the completion of the University's admission requirement, the Admissions Committee of the School of Nursing will review the application for acceptance into the nursing program.

For specific information regarding the nursing program, please contact: UMSL, School of Nursing, Office of Student Services and Records—(314) 553-6071.

### Degree Requirements

A total of 120 credit hours is needed for graduation. The lower-division requirements of the B.S.N. program will be met by most associate degree or diploma graduates with transferable college credit.

**Satisfactory/Unsatisfactory Restrictions** All prerequisite courses to the nursing major and all nursing courses are exceptions to the satisfactory/unsatisfactory option.

#### I Lower-Division Requirements (57-59 cr. hrs. total)

These courses are prerequisite to the nursing major and must be completed prior to matriculation into the nursing courses. Lower-division general education courses must meet the prerequisite requirements for upper-division general education courses.

#### General Education Courses (29-31 cr. hrs.)

Subject Area	UMSL Equivalent
<b>English Composition</b> (3)	<b>English 10</b> , English Composition (3)
<b>Anatomy and Physiology</b> (6-8)	<b>Biology 113</b> , Human Physiology and Anatomy I (4) <b>Biology 114</b> , Human Physiology and Anatomy II (4)
<b>Microbiology</b> (4-5)	<b>Biology 116</b> , Microbiology and Man (3) <b>Biology 118</b> , Microbiology and Man Laboratory (2)
<b>Chemistry</b> (4-5)	<b>Chemistry 1</b> , General Chemistry (3) <b>Chemistry 3</b> , General Chemistry Laboratory (2)
<b>American History or Government</b> (3) (State requirement)	<b>History 3</b> , American Civilization (3) <b>History 4</b> , American Civilization (3) <b>History 107</b> , The History of Missouri (3) <b>History 311</b> , Topics in American Constitutional History (3) <b>Political Science 11</b> , Introduction to American Politics <b>Political Science 121</b> , Civil Liberties <b>Political Science 130</b> , State Politics <b>Political Science 135</b> , Introduction to Urban Politics <b>Political Science 140</b> , Public Administration <b>Political Science 230</b> , The American Presidency <b>Political Science 233</b> , Introduction to Political Behavior <b>Political Science 235</b> , Political Parties <b>Political Science 240</b> , Bureaucratic Politics <b>Political Science 245</b> , Urban Administration <b>Political Science 320</b> , Introduction to American Constitutional Law <b>Political Science 331</b> , Legislative Politics <b>Political Science 346</b> , Urban Planning and Politics
<b>Psychology</b> (6)	<b>Psychology 3</b> , General Psychology (3) <b>Psychology 268</b> , Human Growth and Behavior (3) or <b>Psychology 270</b> , Child Psychology (3)
<b>Sociology</b> (3)	<b>Sociology 10</b> , Introduction to Sociology (3)
<b>Mathematics Proficiency</b>	<b>Mathematics 02, a, b, c</b> , Fundamentals of Algebra (no credit toward graduation) or Proficiency by mathematics placement examination

#### Nursing Credit Requirement (28 cr. hrs.)

Successful completion of a junior-level placement exam in basic nursing knowledge and skills. See Nursing Credit by Examination in the preceding General Information section for more details.

#### II Upper-Division Requirements (63 cr. hrs. total)

The upper-division program of study leading to the B.S.N. degree integrates general education and advanced professional nursing knowledge and skills. The upper-division requirements of 63 credit hours, to complete the 120 hours

## School of Nursing

needed for the degree, may be earned in a two-year period by most full-time students. A student must earn a grade of C or better in all courses required for the degree, both in general education coursework and in nursing coursework.

### General Education Coursework (30-31 cr. hrs.)

**English 160**, Advanced Expository Writing or equivalent (3) is required.

**Humanities** (9 cr. hrs.) Three courses, **one from each** of the following areas:

- 1) **Humanities**—art or music appreciation, philosophy or literature
- 2) **Philosophy 60**, Logic and Language or **Philosophy 160**, Formal Logic
- 3) **One** three-hour course in **philosophy** or a course that meets the College of Arts and Science **Non-Euro-American Study** requirement. See list in College of Arts and Sciences General Information section.

**Area of Special Interest** (9 cr. hrs.) Students should select courses from an approved list in the areas of anthropology, biology, business administration, computer (mathematics or business), economics, education, nursing, philosophy, psychology, social work, sociology, or speech communication according to their own interest or career objective. See the nursing school adviser for the current list. **Two courses** must be above the introductory level.

**Statistics** (3 or 4 cr. hrs.) **One** of the following courses is required:

- Sociology 120**, Quantitative Techniques in Sociology (3)
- Psychology 101**, Psychological Statistics (4)
- Mathematics 31**, Elementary Statistical Methods (3)
- Business Administration 131**, Elementary Statistics (3)

**Also required** are the following courses:

- Biology 213**, Vertebrate Physiology (3)
- Chemistry 2**, General Organic Chemistry (3)

### Nursing Coursework (32 cr. hrs.)

The nursing courses have been developed to expand the student's nursing knowledge and skill in patient teaching, leadership, interpersonal communication and patient assessment. A number of courses are designed to acquaint the registered nurse with nursing theory, research, family and community health. The following nursing courses are required for the nursing major.

**Junior-Level Nursing Courses** Admission to the School of Nursing is required for the student to begin the nursing course sequence. All junior-level courses are three-hour courses and contain a clinical component, except Nursing 200, Dimensions of Professional Nursing Practice, and Nursing 250, Research in Nursing.

**200**, Dimensions of Professional Nursing Practice

**Note: Nursing 200 is a prerequisite or corequisite to other junior-level nursing courses.**

- 210**, Interpersonal Systems in the Practice of Nursing
- 220**, Health Assessment
- 230**, Teaching and Guidance in the Practice of Nursing

- 240**, Leadership and Management in Nursing
- 250**, Research in Nursing

**All junior-level courses must be completed successfully prior to enrolling in senior-level courses.**

**Senior-Level Nursing Courses** All senior-level courses contain a clinical component except Nursing 350, Senior Seminar.

- 310**, Designing Nursing Systems: Families
- 320**, Designing Nursing Systems: Groups
- 330**, Community Health Nursing
- 340**, Synthesis in Nursing Practice
- 350**, Senior Seminar

**Note: Nursing 350 must be taken in the student's last semester.**

## Professional Organizations

### American Nurses Association

Students, as registered nurses, are eligible for membership in the American Nurses Association. Membership and participation in this professional organization is strongly urged for all nurses practicing today. Nurses, as the largest group of health professionals, have a responsibility to assume leadership positions in the determination of health-care policy, and this activity can best be accomplished by participating in the professional organization.

### Rho Nu

Rho Nu is the student association of the School of Nursing. It is a collegial group providing professional development activities for the registered-nurse student. All students enrolled in the School of Nursing are eligible for membership.

## Continuing Education-Extension

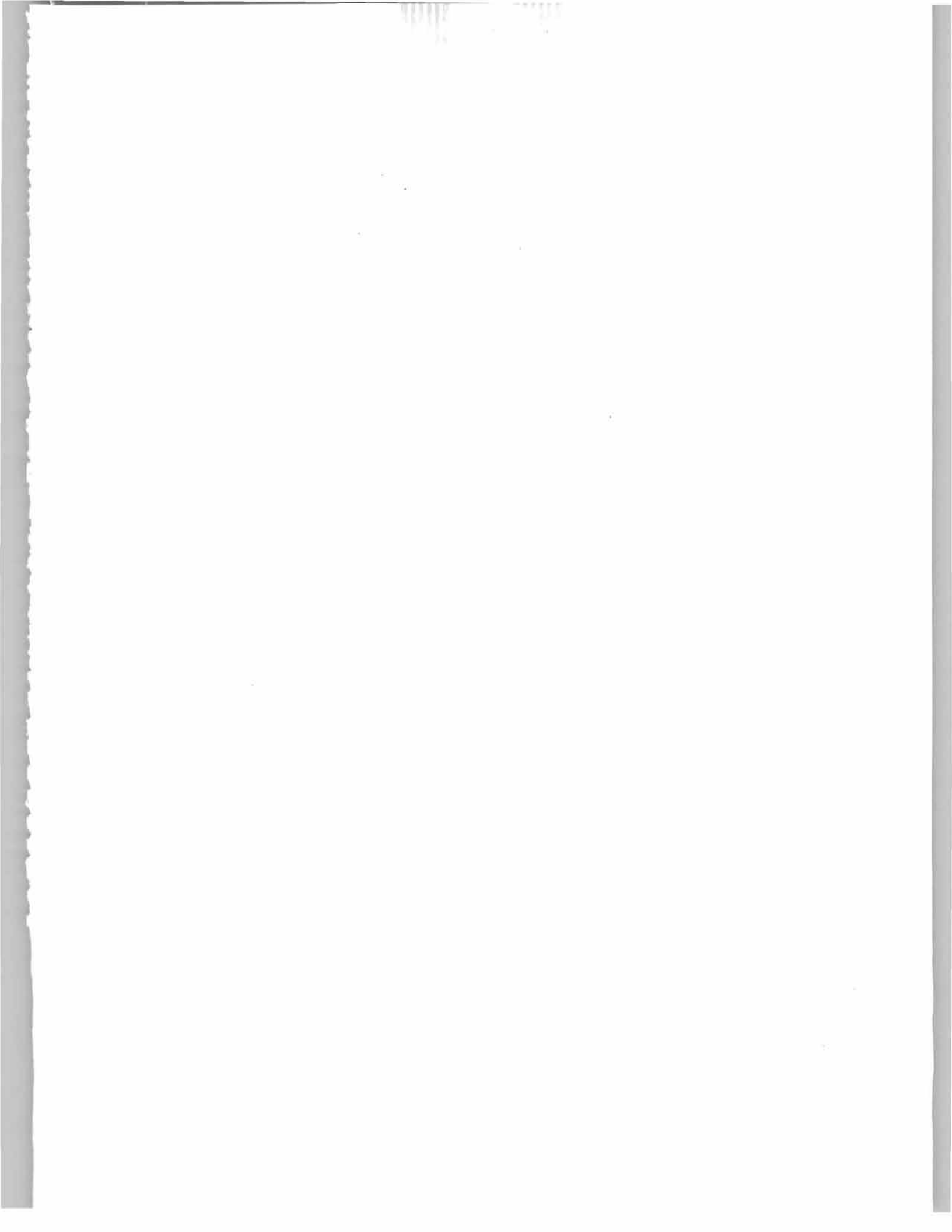
Continuing education offerings in the field of nursing are currently presented to provide nurses with new information, techniques, and trends within the nursing profession.

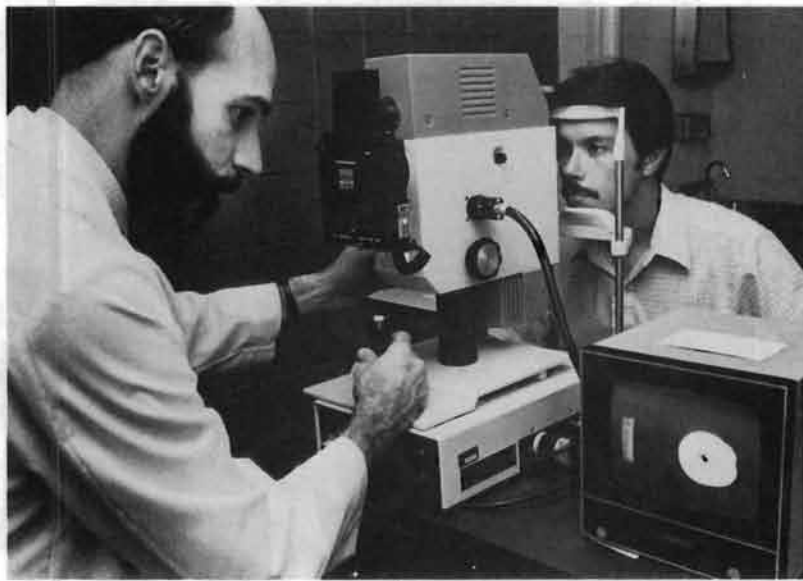
Credit courses which will apply to the B.S.N. program are offered at the following off-campus sites: Barnes Hospital, Jewish Hospital, St. John's Mercy Medical Center, Lindbergh High School, St. Joseph's Hospital in St. Charles, Missouri, Christian Hospital Northeast and St. Louis Children's Hospital. Credit courses are offered in both nursing and general education.

## Career Outlook

The increased expertise in nursing skills and the broad base of managerial skills acquired by the registered nurse in a baccalaureate program will qualify our graduates for many positions of leadership in nursing. Moreover, the current growth in community health nursing has created a demand for nurses with the bachelor's degree in nursing.

B.S.N. graduates have an awareness of the complexity of influences on the health care of individuals, families, and groups, and this makes them a valuable member of health-care teams in both the clinical and community health setting.

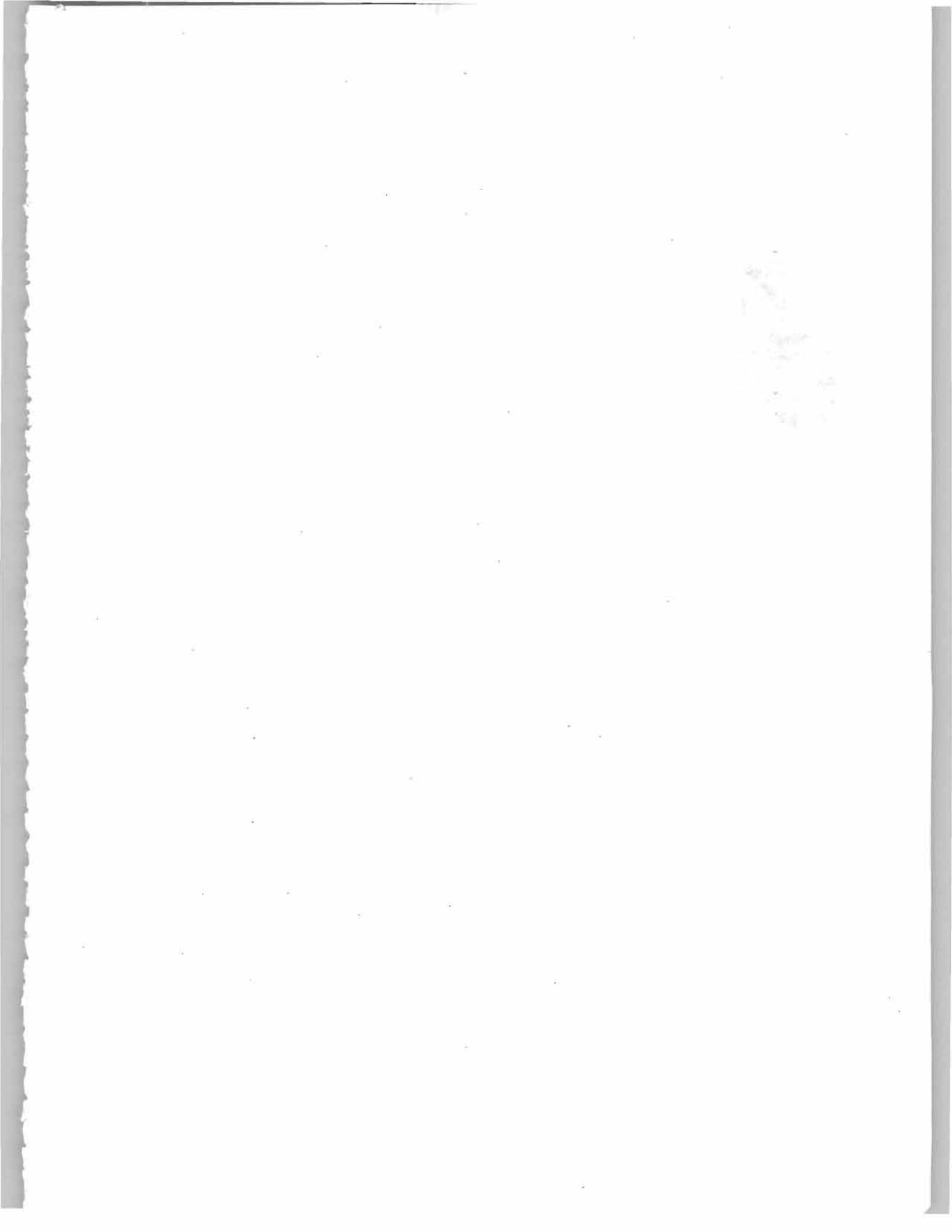




# School of Optometry







# School of Optometry

## Faculty

**Jerry L. Christensen**, Dean; Professor  
O.D., Ph.D., The Ohio State University

**David W. Davidson**, Associate Dean, Associate Professor  
M.S., University of Alabama-Birmingham; O.D., University of California-Berkeley

**Gerald A. Franzel**, Clinical Associate Professor; Director; Assistant Dean for Continuing Education and Community Relations  
O.D., University of Houston

**Donald E. Grogan**, Associate Professor, Biology  
Ph.D., University of Missouri-Columbia

**Kathleen M. Haywood**, Associate Professor of Education  
Ph.D., University of Illinois-Urbana-Champaign

**William F. Long**, Associate Professor  
Ph.D., Michigan State University; O.D., Indiana University

**Leonard L. Naeger**, Associate Professor of Pharmacology  
Ph.D., University of Florida

**Carol K. Peck**, Associate Professor  
Ph.D., University of California-Los Angeles

**Sudarshan K. Suneja**, Clinical Associate Professor  
M.D. Kasturba Medical College; Ph.D., Illinois Institute of Technology

**Roger W. Wiley**, Associate Professor  
O.D., Southern College of Optometry; Ph.D., Indiana University-Bloomington

**Raymond A. Applegate**, Assistant Professor  
O.D., Indiana University-Bloomington; Ph.D., University of California-Berkeley

**Edward S. Bennett**, Assistant Professor  
M.S. Ed., O.D., Indiana University-Bloomington

**Marc R. Brown**, Clinical Assistant Professor  
O.D., Southern College of Optometry

**David L. Davidson**, Clinical Assistant Professor  
O.D., Southern College of Optometry

**James A. De Clue**, Clinical Assistant Professor  
O.D., Illinois College of Optometry

**Mona R. Dewart**, Assistant Professor  
O.D., Indiana University-Bloomington

**Donald J. Egan**, Director of Clinics, Assistant Professor  
O.D., Pennsylvania College of Optometry

**Jimmy H. Elam**, Clinical Assistant Professor  
O.D., Southern College of Optometry

**Kurt W. Finklang**, Clinical Assistant Professor  
O.D., State University of New York

**Ralph P. Garzia**, Assistant Professor  
O.D., Pennsylvania College of Optometry

**Kent B. Hill**, Clinical Assistant Professor  
O.D., Southern College of Optometry

**Joseph W. Huff**, Assistant Professor  
Ph.D., Medical College of Georgia

**William F. Kiefer**, Clinical Assistant Professor  
O.D., Illinois College of Optometry

**Lynette S. Lui**, Clinical Assistant Professor  
O.D., Illinois College of Optometry

**Eugene J. Mobley**, Clinical Assistant Professor  
O.D., Illinois College of Optometry

**Thomas I. Porter**, Clinical Assistant Professor  
O.D., Southern College of Optometry

**Daniel G. Puetz**, Clinical Assistant Professor  
O.D., Pacific University

**William P. Ridley**, Adjunct Assistant Professor  
Ph.D., University of Minnesota

**Thomas Sandler**, Clinical Assistant Professor  
O.D., Pennsylvania College of Optometry

**Russell C. Saphian**, Clinical Assistant Professor  
O.D., Southern College of Optometry

**Donald E. Simpson**, Adjunct Assistant Professor  
O.D., Indiana University

**Linda R. Trick**, Assistant Professor, Assistant Director of Clinics  
O.D., Indiana University

**Dwayne D. Young**, Clinical Assistant Professor  
O.D. Indiana University-Bloomington

**James M. Budd**, Clinical Lecturer  
O.D., Pennsylvania College of Optometry

**Lisa A. Kochanny**, Lecturer, O.D. Ferris State College

**Dale A. Potter**, Lecturer,  
O.D., University of Alabama-Birmingham

**Daniel D. Siebert**, Lecturer,  
O.D., Illinois College of Optometry

**Marian C. Welling**, Assistant Instructor  
B.S., Ferris State College

## General Information

The School of Optometry was founded in 1980 and is located on the South Campus Complex. This modern five-building complex houses the School's classrooms, laboratories, research facilities, administrative offices, health science library, and a state-of-the-art vision care clinical facility. In addition, the campus includes a large cafeteria, student lounge, and an impressive 350-seat amphitheater.

The School of Optometry enjoys the city's strong community and professional support. In addition, students in the School of Optometry are able to take advantage of the many exciting activities in St. Louis. The urban setting also offers the School many opportunities for outreach programs, expanding the scope of optometric education and making available highly diverse programs of clinical training.

The curriculum leading to the Doctor of Optometry degree requires four years study beyond undergraduate college education. The first year of the professional curriculum stresses optics and basic health sciences. The second year covers vision science and training in eye examination techniques. The third year emphasizes patient care and introduces the student to the various specialty areas within optometry. These include contact lenses, pediatric and geriatric vision care, binocular vision and vision training, and low vision rehabilitation. Also included in the third year are coursework and clinical training in ocular disease and pharmacology. The fourth year provides additional patient care experiences and includes rotation through a variety of outreach programs where the student gains added experience in the various optometric clinical specialties.

# School of Optometry

## Admissions Requirements

	Semester	Quarter
English .....	2	or 3
Biology (including laboratory)* .....	2	or 3
Physics (including laboratory) .....	2	or 3
Chemistry		
General (including laboratory) .....	2	or 3
Organic (including laboratory) .....	1	or 2
Mathematics**		
Calculus .....	1	or 1
Statistics .....	1	or 1
Psychology .....	2	or 2
Social and Behavioral Sciences .....	2	or 2

\*One semester (or one quarter) of Microbiology is a requirement. Other biological science courses that are recommended include: genetics; cellular physiology; embryology.

\*\*Trigonometry as a prerequisite course for Calculus must be completed either in high school or college.

All courses used to satisfy the admissions requirements must have been taken at a fully accredited institution or must be acceptable by an accredited institution toward degree credit. Applicants must have completed 90 semester- or 135 quarter-hours (the equivalent of three years of college education) prior to the start of classes. The applicant cannot apply more than 60 semester-hours or 90 quarter-hours which were earned at a two-year institution toward the credit-hour requirement. Applicants holding a bachelor's degree will be given preference over applicants with similar academic credentials who do not have a degree.

## Optometry College Admission Test (OCAT)

All applicants are required to take the OCAT.

The examination is offered twice each year (March and October). Results are sent to the applicant and colleges of optometry approximately four to six weeks following the date of testing.

Applicants are encouraged to take the examination in March of the year preceding anticipated enrollment in the School of Optometry. **The exam must have been taken no later than October of the year preceding anticipated enrollment.**

OCAT application packets and additional information can be obtained from the School of Optometry or by contacting: **Optometry College Admission Test**, The Psychological Corporation, 7500 Old Oak Blvd., Cleveland, OH 44130, (216) 234-5300.

## Selection Procedures

The Admissions Committee has the responsibility to review and evaluate all applicants and select the best qualified

candidates. The Committee considers: an applicant's overall grade point average, the grade point achieved in the sciences, any grade trends over the years in college, the scores on the Optometry College Admission Test, as well as letters of recommendation. Those applicants whom the Committee feels to be most competitive will be scheduled for an interview. From this group of interviewed applicants, the entering class will be selected. Positions are available for forty new students each year. The policies of the University of Missouri-St. Louis and the School of Optometry comply with the provisions under those laws which forbid discrimination on the basis of race, color, sex, national origin, religion, age, handicap or veteran status. The School of Optometry encourages minority applicants.

## Acceptance Procedures

Students accepted for admission will begin receiving notices of acceptance in December prior to the year of anticipated matriculation. Notices of acceptance may be received as late as the following May. If acceptance to the class is conditional, the terms of the condition must be completed prior to matriculation. Applicants who have indicated that degree requirements will be completed prior to matriculation, and who have been selected for admission, may receive a conditional offer of acceptance contingent upon completion of the degree.

## Fees

**The University reserves the right to change fees and other charges at any time without advance notice.**

### Regular Semester

The following fees are based on 14 or more credit hours for the 1985 fall semester.

Incidental Fee	\$ 884.10
Supplemental Fee	1568.00
Student Activity Fee	55.00
Parking Fee	24.50
<b>Total</b>	<b>\$2531.60</b>

All non-resident optometry students are also required to pay a non-resident tuition fee of \$3500.00 per semester.

### Summer Session

The following fees are based on 7 or more credit hours for summer 1984.

Incidental Fee	\$ 442.05
Supplemental Fee	784.00
Student Activity Fee	27.51
Parking Fee	12.25
<b>Total</b>	<b>\$1265.81</b>

# School of Optometry

## Financial Aid

The University of Missouri-St. Louis maintains an Office of Student Financial Aid to help students who are unable to obtain an education without the benefit of financial assistance. UMSL attempts to assist as many students as possible and encourages students to apply for financial assistance. For information regarding available sources of student financial assistance contact: **Student Financial Aid**, Room 209 Woods Hall, University of Missouri-St. Louis, St. Louis, Missouri 63121, (314) 553-5526.

## Class Size

Each entering class will be limited to 40 students.

## Residence

The UMSL School of Optometry is state supported and therefore gives preference to individuals who are bona fide residents of Missouri. Twenty-five of the forty available positions are reserved for Missouri residents. The remaining fifteen places will be allocated to residents of other states with preference given to applicants from the midwestern region. Currently, two of these positions are reserved for Arkansas residents. Individuals who are admitted under the State of Arkansas Affiliation Agreement may receive \$4200 toward nonresident tuition per academic year. See the section on fees in this brochure.

Optometry students will be required to pay the nonresident tuition fee if they do not meet the University's residency requirements at the time of their enrollment. The definition of "residency" is outlined in the pamphlet *Tuition and Residency Rules* available from the Cashier's Office.

## Application Procedures

The Admissions Committee begins to process applications on August 1 for the class entering the following year. An applicant's file will be considered complete and ready for consideration by the Admissions Committee when the following material has been received:

1. Application.
2. Official high school and college transcripts, followed by updated transcripts as they become available.
3. Academic Record form.
4. Official OCAT results.
5. A composite evaluation prepared by the preprofessional advisory committee at the educational institution the applicant is attending. Those applicants not currently attending college or who are at an institution that does not offer a committee evaluation will be required to submit four letters of recommendation.

Early submission of applications is encouraged. Applications must be complete by February 1 to be considered for admission to the class entering in August of the same year. Application materials received after February 1 will not be evaluated for the class entering in August of the same year.

All correspondence concerning admissions matters should be addressed to: Chairperson, **Admissions Committee**, School of Optometry, University of Missouri-St. Louis, St. Louis, Missouri 63121.

## Career Outlook

The practice of optometry offers independence, flexibility, and diversity. Optometrists have a wide range of modes of practice. They practice vision care in the inner cities, suburbs, and rural areas. Opportunities exist for solo practice, associateship, optometric or multidisciplinary group practice, government or military service, and clinic or hospital settings. Additional optometric employment opportunities may be found in teaching, research, or both. The patients whom the practicing optometrist treats may have varied and interesting needs. One could be involved in restoring vision to a partially sighted patient; fitting glasses for a child who is not achieving in school due to vision difficulty; improving the function of a patient's eyes through vision training; helping an elderly patient cope with changing vision through patient education; and performing initial eye examinations for those who need correction of astigmatism, nearsightedness, and numerous other vision problems.

While the American Optometric Association recommends fourteen optometrists per 100,000 persons, there are currently fewer than nine optometrists for every 100,000 Americans. In Missouri, thirty-one counties do not have a practicing optometrist with another twenty-two counties having only one to serve each county's citizens. At present, the number of optometrists in Missouri is not far below the national average; however, a significant proportion of the state's optometrists are in the older age brackets. If the number of optometrists in Missouri does not increase, there will be a significant shortage of vision care specialists by 1990. Therefore, it appears certain that future career opportunities within the optometric profession remains excellent.

As a health-care profession, a career in optometry is both rewarding and intellectually challenging. Vision is the most important human sense and its preservation and enhancement bring a great sense of satisfaction and accomplishment.

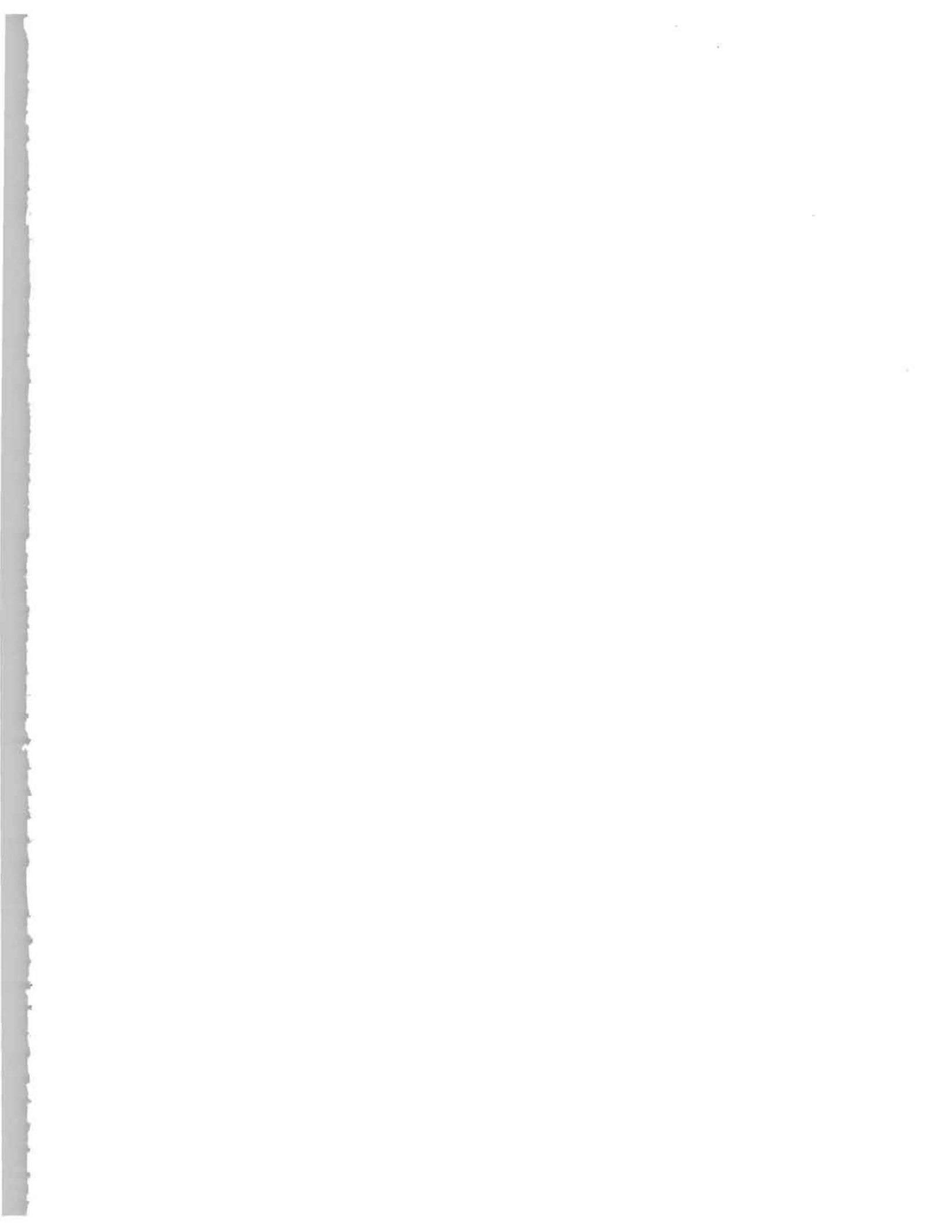






## Other Programs





# UMR Engineering Center

## Faculty

**Edward C. Bertnolli**, P.E., Director, Professor  
Ph.D., Kansas State University  
**C. Ben Basye**, P.E., Professor  
Ph.D., Iowa State University  
**Anton deS. Brasunas**, P.E., Professor Emeritus  
Sc.D., Massachusetts Institute of Technology  
**Herbert A. Crosby**, Professor Emeritus  
D.Sc., Washington University  
**George W. Zobrist**, Professor  
Ph.D., University of Missouri-Columbia  
**Daniel C. St. Clair**, Professor  
Ph.D., University of Missouri-Rolla  
**David A. Shaller**, Assistant Professor  
J.D., Cleveland State University

## General Information

The UMR Engineering Center offers course work leading to the Master of Science degree in eight areas of engineering and computer science. In addition, the Professional Development degree is available to persons wishing a more flexible post-baccalaureate degree.

Master of Science degree areas are as follows:

- Aerospace Engineering
- Chemical Engineering
- Civil Engineering
- Computer Science
- Electrical Engineering
- Engineering Mechanics
- Engineering Management
- Environmental Engineering
- Mechanical Engineering

## Admission

Admission to candidacy for these degrees is granted by the University of Missouri-Rolla in the same manner that admission is granted on the UMR campus (see UMR catalog for full details).

Normally admission is granted to persons holding B.S. degrees in engineering from ECPD-accredited schools (this does not apply to Computer Science) and whose undergraduate GPA places them in the upper third of their graduating class.

## Degree Requirements

An appropriately selected program of 30 credit hours is required for the Master of Science degree with thesis, and a 33 credit hour program is required for the non-thesis Master of Science degree. Slight variations in credit hour requirements may exist from department to department.

## Course Listings

Course listings for the various semesters may be obtained by writing or phoning the Engineering Center. Course descriptions are listed in the UMR graduate catalog.

The Center also provides information to St. Louis area residents about UMR programs in Rolla. The Center can assist area pre-engineering students with transfer to the Rolla campus and with entry into the Cooperative Training Programs that exist between UMR and numerous U.S. industries. This co-op program allows engineering students to gain valuable industrial experience during their school years and to be partially or totally self-supporting.

## Fees

Registration fees for UMR Engineering Center programs are different from those on the UMSL Campus. For information about the UMR evening program on the UMSL Campus, write to UMR Engineering Center, UMSL Campus, 8001 Natural Bridge Road, St. Louis Missouri 63121, or phone 553-5431.

## Reserve Officers Training Corps

Students interested in ROTC programs may enroll in either the Army ROTC program at UMSL or the Air Force ROTC program which is sponsored at UMSL through Parks College of St. Louis University. These programs provide undergraduate and graduate students with the opportunity to combine academic study with a military officer's training program.

For further information concerning the Army ROTC program, contact the ROTC officer at UMSL, telephone 553-5176. For information on the Air Force ROTC program, contact the Air Force ROTC Department at Parks College of St. Louis University, telephone 337-7500, extensions 230 and/or 259.

### Scholarship Programs

Scholarships are available for both ROTC programs. For information see ROTC Financial Aid in the Financial Assistance section of this *Bulletin* and/or contact the offices listed above.

### Army ROTC

Military Science courses are described in detail in a companion booklet to this *Bulletin*, *The Description of Courses*.

Military Science courses are designed to develop leadership and managerial skills and provide both practical experience and theory. Two-, three-, and four-year scholarships covering incidental fees and laboratory expenses are available to qualified cadets in the Army ROTC program. Recipients also receive \$100 per month and reimbursement for book costs at a flat rate fee. High-school students interested in competing for the four year scholarship must apply by December of their senior year in high school. Call the Army ROTC office on UMSL for further information.

### Air Force ROTC

Aerospace Studies courses are described in detail in a companion booklet to this *Bulletin*, the *Description of Courses*. The basic courses are designed to acquaint students with the United States Air Force and the opportunities available as an officer. Grades earned in aerospace studies will be computed in the student's overall grade point average, but credit hours for these courses will not be included in the 120 hours needed for graduation.

Two-, three-, and four-year scholarships covering incidental fees and laboratory expenses are available to qualified cadets in the Air Force ROTC program. Recipients also receive \$100 per month and reimbursement for book costs. High school students interested in competing for the full four-year scholarship program must apply to Headquarters AFROTC, Maxwell AFB, Alabama, 36112-6663, not later than December of their senior year.

## Programs at Other Universities

### Reciprocal Programs

Unless otherwise stated, students interested in one of the following programs should contact the admissions office at the school where the program is offered.

#### Nebraska

The University of Nebraska in Lincoln offers programs for Missouri residents in architecture, community and regional planning, construction management, and actuarial science where students may pursue bachelor's degrees.

#### Illinois

A cooperative agreement exists between Southern Illinois University-Edwardsville and UMSL which permits students of one institution to take courses at the other institution as a regular part of their academic program. For further information consult the registrar's office or the dean's office.

#### Kansas

The following programs are offered to Missouri residents at various Kansas universities:

**Architecture** University of Kansas, Lawrence, with a bachelor of architecture or a B.S. in architectural engineering. An M.S. in architectural engineering is also available.

**Humanities** University of Kansas, Lawrence, with a Ph.D. in linguistics, an M.S. in music therapy, an M.A. in Oriental languages and literature, and a B.A. and M.A. in Slavic languages and literature (not Russian). A Ph.D. in Slavic languages and literature is also offered.

**Architecture** Kansas State University, Manhattan, with a bachelor or master of architecture, a B.S. in building construction, a B.S. in interior architecture, as well as a B.S. or M.S. in landscape architecture.

**Grain milling and technology** Kansas State University, Manhattan, with a B.S., M.S., or Ph.D. in bakery science and management, feed science and management, or milling science and management.

**Horticulture** Kansas State University, Manhattan, with a B.S. in horticulture therapy.

### Study Abroad Programs

As a result of agreements of academic cooperation with international universities, special opportunities for study abroad are available to qualified UMSL students. Bilateral agreements are in force with universities in the People's Republic of China, the Republic of China (Taiwan), and the Federal Republic of Germany (West Germany).

**Fees** UMSL students may pay standard UMSL fees during their term of study abroad. Transportation and living expenses abroad are the responsibility of the student, but no further academic fees are required by the foreign university. Terms of study usually coincide with UMSL's regular academic calendar.

**Application** The UMSL student must be recommended to the chancellor through the chair of the International Implementation Council. The student's qualifications typically include upper-division standing with a high grade point average, recommendations by faculty members, approval of the proposed course of studies via the departmental/divisional advisory process, and familiarity with or willingness to learn the foreign language of instruction/study.

Expressions of interest are welcome throughout the year. Since the nomination process involves international mails, formal applications should be submitted not later than the end of classwork of the winter term for the following fall term.

For further information contact the Study Abroad Office, Center for International Studies, 366 SSB, 553-5753, or Chair, International Implementation Council, Graduate School, 341 Woods, 553-5897.

### Universities Participating in Student & Faculty Exchange

#### People's Republic of China

Lanzhou University, Gansu Province  
Anhui University, Heifei Anhui Province

#### Republic of China

National Taiwan University, Taipei, Taiwan  
Tamkang University, Taipei, Taiwan  
Kaohsiung Teachers College, Kaohsiung, Taiwan

#### United Kingdom

Lancaster University, England

#### West Germany

Stuttgart University, Stuttgart

### Other Programs

The Center for International Studies has information on study abroad programs offered by other universities. UMSL doctoral students may participate in programs sponsored by MASUA (Mid-America State Universities Association) institutions in Africa, Europe, Latin America, and the Far East. These programs vary in duration from several weeks to the full academic year and represent study opportunities in many disciplines. For further information, contact the Study Abroad Office.



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## Code of Student Conduct

A student enrolling in the University assumes an obligation to conduct himself in a manner compatible with the University's function as an educational institution. Misconduct for which students are subject to discipline falls into the following categories:

Dishonesty, such as cheating, plagiarism, or knowingly furnishing false information to the University.

Forgery, alteration, or misuse of University documents, records or identification.

Obstruction or disruption of teaching, research, administration, disciplinary procedures, or other University activities, including its public service functions, or of other authorized activities on University premises.

Physical abuse of any person on University-owned or-controlled property or at sponsored or supervised functions, or conduct which threatens or endangers the health or safety of any such person.

Theft of or damage to property of the University or of a member of the University community or campus visitor.

Unauthorized entry to or use of University facilities.

Violation of University policies or of campus regulations, including campus regulations concerning the registration of student organizations, the use of University facilities, or the time, place and manner of public expression.

Use, possession or distribution of narcotics or dangerous drugs, such as marijuana and lysergic acid diethylamide (LSD), except as expressly permitted by law.

Violation of rules governing residence in University-owned or-controlled property.

Disorderly conduct or lewd, indecent, or obscene conduct or expression on University-owned or-controlled property or at University-sponsored or-supervised functions.

Failure to comply with directions of University officials acting in the performance of their duties.

Conduct which adversely affects the student's suitability as a member of the academic community.

## Student Disciplinary Matters

### Rules of Procedure in Student Disciplinary Matters Adopted November 8, 1968

#### Preamble

The following Rules of Procedure in Student Disciplinary Matters are hereby adopted in order to ensure insofar as possible and practicable that the requirements of procedural due process in student disciplinary proceedings will be fulfilled by the university, that the immediate effectiveness of Article V of the bylaws of the Board of Curators relating to student conduct and discipline may be secured for all students in the University of Missouri and so that procedures shall be definite and determinable within the University of Missouri.

These Rules of Procedure shall be followed in any disciplinary proceedings commenced after the beginning of the second semester 1968-69, subject to the constitutional authority and legal obligation of the Board of Curators and the authority delegated to the president of the university to exercise jurisdiction over all or any disciplinary matters of the university.

#### Definitions

As used in these rules, the following definitions shall apply.

**Appeal:** The exercise of the right of review by the student or dean of students of the full record of the Student Conduct Committee or the chancellor where discipline of expulsion, dismissal, or suspension is imposed.

**Dean of Students:** As used in these procedures, "Dean of Students" is charged with the primary responsibility for the administration of these disciplinary procedures and refers to either the person on each campus with that title (or an appropriate or similar one) or the individual specifically designated by him to act for him.

**Disciplinary Dismissal:** An involuntary separation of the student from the institution for misconduct apart from academic performance. Dismissal differs from suspension in that it does not imply or state a minimum separation time.

**Disciplinary Expulsion:** Disciplinary dismissal of a permanent nature.

**Disciplinary Probation:** A status resulting from misconduct apart from academic performance. The student remains enrolled but under stated conditions.

**Disciplinary Suspension:** An involuntary separation of the student from the institution for misconduct apart from academic performance for a specified period of time. Suspension differs from dismissal in that after the stated time period the student is eligible to be readmitted.

**Discipline Panel:** A panel of students appointed by the chancellor, from which shall be selected by the chairman, upon the request of a student charged before the Student Conduct Committee, not more than three students to serve with the Student Conduct Committee.

**Review:** The exercise of the right to request review of the chancellor by the student or dean of students whether or not discipline is imposed and when the discipline imposed, if any, is other than expulsion, dismissal, or suspension.

**Student:** A person having once been admitted to the university who has not completed his course of study and who intends to or does continue his course of study in or through one of the campuses of the university. For the purpose of these rules, student status continues whether the university's academic programs are in session or not.

**Student Conduct Committee:** As used in these procedures, "Student Conduct Committee" is that body on each campus which is authorized to conduct hearings and to make dispositions under these procedures or a hearing panel on such body as herein defined.

# Student Disciplinary Matters

## Procedures

### Section 1 Dean of Students

The dean of students on each campus or his designee is designated the primary officer for administration of discipline for unacceptable conduct or which involves infraction of university rules and regulations and will initiate disciplinary action in accordance with these regulations.

### Section 2 Preliminary Procedures

The dean of students shall investigate any reported student misconduct before initiating formal disciplinary procedures and give the student the opportunity to present his personal version of the incident or occurrence. The dean of students may discuss, consult, and advise with any student whose conduct is called into question, and students shall attend such consultations as requested by the dean of students, and shall be given a copy of these procedures. The dean, in making his investigation and disposition, may utilize student courts and boards to make recommendations to him which he shall consider in exercising the authority vested in him.

### Section 3 Informal Disposition

The dean of students, after investigation, and when acceptable to the student, shall have the authority to impose appropriate discipline. Where the disposition proposed by the dean of students in the preliminary proceedings is not accepted by the student in writing, the student shall have the right of notice, hearing, and formal procedures as hereinafter set forth before the Student Conduct Committee. The dean of students shall fix a reasonable time within which the student shall accept or reject a proposed informal disposition. A failure of the student to either accept or reject such proposed disposition within the time fixed shall be deemed to be an acceptance, and in such event, the proposed disposition shall become final upon expiration of such time. If the student rejects informal disposition, his signed statement shall be forwarded to the committee. The dean of students, at his discretion, may refer cases to the Student Conduct Committee without first offering informal disposition.

### Section 4 Temporary Suspension

Either the president or chancellor of a campus may at any time temporarily suspend or deny readmission to a student from the university pending formal procedures when he finds and believes from information coming to his attention that the presence of the student on campus would seriously disrupt the university or constitute a danger to the health, safety, or welfare of the university. The suspending officer shall promptly notify the dean of students to initiate the appropriate disciplinary procedure within five days.

### Section 5 Formal Procedures and Disposition

#### A. Student Conduct Committee:

(1) The Student Conduct Committee shall be appointed by the chancellor and shall have the authority to impose appropriate discipline upon any student or students appearing before it, including, but not limited to, probation, suspension, dismissal or expulsion. (2) The committee, when appropriate or convenient, may be divided by the chairman of the Student Conduct Committee into Hearing Panels, each panel to be composed of at least five members present at the hearing, including a designated chairman. A Hearing Panel has the authority of the whole committee in those cases assigned to it by the chairman of the Student Conduct Committee. The chairman of the committee or of a Hearing Panel shall count as one member of the committee or Hearing Panel and have, in addition to his rights as chairman, the same voting and other rights as other members of the committee or Hearing Panel. (3) Each chancellor shall appoint a panel of students for his campus, to be known as the Discipline Panel. Upon written request of a student charged before

the Student Conduct Committee, made at least forty-eight (48) hours prior to the hearing, the chairman of the committee or Hearing Panel shall appoint from the Discipline Panel not more than three students to sit with the committee or Hearing Panel for that particular case. When students from the Discipline Panel serve at the request of a student charged they shall have the same rights as other members of the committee or Hearing Panel, including the right to vote.

#### B. General Statement of Procedures:

A student charged with a breach of University rules or regulations or conduct in violation of the General Standard of Student Conduct is entitled to a written notice and a formal hearing unless the matter be disposed of under the rules of informal disposition. The procedures set forth below shall be interpreted and administered to accomplish this objective and provide for prompt consideration and disposition of student conduct cases. Disciplinary proceedings are not to be constructed as judicial trials, but care shall be taken to comply as fully as possible with the spirit and intent of the procedural safeguards set forth herein. The office of the general counsel shall be legal adviser to the Student Conduct Committee.

#### C. Notice:

The dean of students shall initiate disciplinary actions by arranging with the chairman to call a meeting of the Student Conduct Committee and by giving written notice by certified mail or personal delivery to the student charged with misconduct which shall set forth the date, time and place of the alleged violation, the conduct to be inquired into, and the date, time and place of hearing before the Student Conduct Committee. Notice by certified mail may be addressed to the last address currently on record with the University. Failure by the student to have his current correct local address on record with the University shall not be construed to invalidate such notice. The notice shall be given at least seven (7) consecutive calendar days prior to the hearing, unless a shorter time be fixed by the chairman for good cause. Any request for continuance shall be made in writing to the chairman, who shall have the authority in his discretion to continue the hearing if he determines the request is timely and made for good cause. The chairman shall notify the dean of students and the student of the new date for the hearing. If the student fails to appear at the scheduled time, the committee may hear and determine the matter in his absence.

#### D. Conduct of Hearing:

The Chairman shall preside at the hearing, call the hearing to order, call the role of the committee in attendance, ascertain the presence or absence of the student charged with misconduct, read the notice of hearing and charges and verify the receipt of notices of charges by student, report any continuances requested or granted, establish the presence of any adviser or counselor of the student, and call to the attention of the student charged and his adviser any special or extraordinary procedures to be employed during the hearing and permit the student to make suggestions of or objection to any procedures for the Student Conduct Committee to consider.

(1) Opening Statements: (a) The dean of students shall make opening remarks outlining the general nature of the case and testify to any facts his investigation has revealed. (b) The student may make a statement to the committee about the charge at this time or at the conclusion of the University's presentation, at his election.

(2) University Evidence: (a) University witnesses are to be called and identified or written reports or evidence introduced as appropriate. (b) The committee may question witnesses at any time. (c) The student or, with permission of the committee, his adviser or counselor may question witnesses or examine evidence at the conclusion of the University's presentation.

(3) Student's Evidence: The student shall have the opportunity to make a statement to the committee about the charge, and may then present further evidence through witnesses or in the form of written memoranda as he desires. The committee may question the student or witnesses at any time. The dean of students may question the student or witnesses.

## Student Disciplinary Matters

(4) Rebuttal Evidence: The committee may permit the University or student to offer any matter in rebuttal of the other's presentation.

### E. Rights of Student Conduct Committee:

The Student Conduct Committee shall have the right: (1) in cases involving more than one student which arise out of the same transaction or occurrence to hear such cases together, but in the event shall make separate findings and determinations for each student; (2) to permit a stipulation of facts by the dean of students and the student involved; (3) to permit the incorporation in the record by a reference of any document, affidavit or other thing produced and desired to be incorporated in the record by the University or the student charged; (4) to question witnesses or other evidence introduced by either the University or the student at any time; (5) to hear from the dean of students about dispositions made in similar cases and any dispositions offered to the student appearing before the committee; (6) to call additional witnesses or require additional investigation; (7) to dismiss any action at any time or permit informal disposition as otherwise provided; (8) to at any time permit or require amendment of the Notice of Hearing to include new or additional matters which may come to the attention of the committee before final determination of the case; provided, however, that in such event the committee shall grant to the student or dean of students such time as the committee may determine reasonable under the circumstances to answer or explain such additional matters; (9) to dismiss any person from the hearing who interferes with or obstructs the hearing or fails to abide by the rulings of the chairman or the committee on request; and (10) to summarily suspend students from the University who, during the hearing, obstruct or interfere with the course of the hearing or fail to abide by the ruling of the chairman of the committee on any procedural question or requests of the chairman for order.

### F. Student Rights Upon Hearing:

A student appearing before a Student Conduct Committee pursuant to formal notice of charges and disciplinary hearing shall have the right: (1) to be present at the hearing; (2) to have an adviser or counselor of his choice appear with him and to consult with such adviser or counselor during the hearing; (3) upon timely request to have students from the Discipline Panel sit with the committee or Hearing Panel in his case; (4) to hear or examine evidence presented to the committee against him; (5) to question witnesses present and testifying against him at the hearing; (6) to present evidence by witness or affidavit of any defense the student desires; (7) to make any statement to the committee in mitigation or explanation of his conduct in question that he desires; (8) to be informed in writing of the findings of the Student Conduct Committee and any discipline it imposes; and (9) to appeal to the chancellor or Board of Curators as herein provided.

### G. Determination by Committee:

The Student Conduct Committee shall then make its findings and determinations in executive session out of the presence of the dean of students and the student charged. Separate findings are to be made (1) as to the conduct of the student and (2) on the discipline, if any, to be imposed. No discipline shall be imposed on the student unless a majority of the committee present is reasonably convinced by the evidence that the student has committed the violation charged and should be therefore disciplined.

### H. Official Report of Findings and Determination:

The committee shall promptly consider the case on its merits and make its findings and determination and transmit them to the dean of students and the student charged forthwith.

### I. Other Procedural Questions:

Procedural questions which arise during the hearing not covered by these general rules shall be determined by the chairman, whose ruling shall be final unless the chairman shall present the question to the committee at the request of a member of the committee, in which event the ruling of the committee by majority vote shall be final.

### J. General Rules of Decorum:

The following general rules of decorum shall be adhered to: (1) All requests to address the committee shall be addressed to the chairman. (2) The chairman will rule on all requests and points of order and may consult with committee's legal adviser prior to any ruling. The chairman's ruling shall be final and all participants shall abide thereby, unless the chairman shall present the question to the committee at the request of a member of the committee, in which event the ruling of the committee by majority vote shall be final. (3) Rules of common courtesy and decency shall be observed at all times. (4) An adviser or counselor may be permitted to address the committee at the discretion of the committee. An adviser or counselor may request clarification of a procedural matter or object on the basis of procedure at any time by addressing the chairman after recognition.

### Section 6 Record of Hearing

A taped or stenographic record of the hearing shall be maintained. The hearing record shall be maintained and kept as long as the discipline imposed shall be in force, or for five (5) years, whichever is earlier. The notice, exhibits, hearing record and the findings and determination of the committee shall become the "Record of the Case" and shall be filed in the office of the dean of students and for the purpose of appeal be accessible at reasonable times and places to both the university and the student.

### Section 7 Right of Appeal

A. When a student is expelled, dismissed or suspended from the university by the Student Conduct Committee, the dean of students or the student may appeal such decision to the chancellor of the campus or his designated representative by filing written notice of appeal with the chancellor within ten (10) consecutive calendar days after notification of the decision of the Student Conduct Committee. A copy of the Notice of Appeal will contemporaneously be given by the student to the dean of students or by the dean of students to the student. The appealing party may file a written memorandum for consideration by the chancellor with the Notice of Appeal, and the chancellor may request a reply to such memorandum by the student or dean of students.

B. The chancellor or his designated representative shall review the full record of the case and the appeal documents and may affirm, reverse or remand the case for further proceedings and shall notify the dean of students and the student in writing of his decision on the appeal.

C. The dean of students or the student may thereafter appeal to the Board of Curators of the University of Missouri by filing a written Notice of Appeal with the chancellor, the president and the secretary of the Board of Curators and giving notice to either the student or dean of students, as appropriate. Such Notice of Appeal must be filed within ten (10) days of the notification of action by the chancellor. Upon filing of a Notice of Appeal to the board, the chancellor shall cause the record of the case, including any written memoranda received during his consideration, to be promptly filed with the secretary of the board through the Office of the President.

D. The appealing party may file a written memorandum for consideration by the Board of Curators with the Notice of Appeal if he so desires, and the other party may file a written reply within ten (10) consecutive calendar days.

E. The Board of Curators shall take such action on the appeal as it deems appropriate and may require a hearing *de novo* on the issues made on the appeal. The secretary of the board shall notify the student, the dean of students, the committee chairman, the chancellor and the president in writing of the decision of the board.



## Student Disciplinary Matters

### Section 8 Right to Petition for Review

A. In all cases where the discipline imposed by the Student Conduct committee is other than expulsion, dismissal or suspension, the dean of students or the student may petition the chancellor of the campus or his designated representative in writing for a review of the decision within five (5) consecutive calendar days after notification of the decision of the Student Conduct Committee and by serving a copy of the Petition for Review upon the nonappealing party within such time. The Petition for Review shall state the grounds or reasons for review, and the nonappealing party may answer the petition within five (5) consecutive days if he so desires.

B. The chancellor or his designated representative may grant or refuse the right of review. If the chancellor or his representative reviews the decision, the action of the chancellor shall be final unless it be to remand the matter for future proceedings or unless the action of the chancellor be to impose discipline of expulsion, dismissal or suspension.

C. If the chancellor imposes discipline of expulsion, dismissal or suspension, the dean of students and the student shall have a right to appeal to the Board of Curators as provided under Section 7. In all cases where the Petition for Review is refused, the action of the Student Conduct Committee shall be final.

### Section 9 Status During Appeal

In cases of suspension, dismissal or expulsion where a Notice of Appeal is filed within the required time, a student may petition the appellate authority in writing for permission to attend classes pending final determination of the appeal. The appellate authority may permit a student to continue in school under such conditions as may be designated pending completion of appellate procedures provided such continuance will not seriously disrupt the University or constitute a danger to the health, safety or welfare of the university community. In such event, however, any final disciplinary action imposed shall be effective from the date of the action of the Student Conduct Committee.

### Section 10 Student Honor Systems

Forums under student honor systems established for investigating facts, holding hearings and recommending and imposing sanctions are authorized when the student honor code or other regulations, containing a well defined jurisdictional statement and satisfying the requirements of Article V, Section B of the Bylaws of the Board of Curators, have been reduced to writing and have been approved by the chancellor and the Board of Curators and notice thereof in writing has been furnished to students subject thereto. Procedures shall satisfy the requirements of the Board of Curators Bylaws, Article V, Section C-(2), and shall contain procedures herein before stated insofar as appropriate and adaptable to the particular situations and shall be approved by the chancellor and the general counsel. Students subject to student honor systems shall have the rights of appeal set forth in Section 7, 8, and 9 of these Rules of Procedure.

## Appeals Procedures

### Financial Aid Appeals

The University of Missouri-St. Louis has an established financial aid appeals procedure. An aid applicant can raise questions or appeal the offer, or lack of an offer, of financial aid if not satisfied. The general provisions for appeals procedures are as follows:

**1** An aid applicant who is not satisfied with the fact that no aid was offered, or was not pleased with the type and/or amount of aid that was offered, may make a written appeal to the campus Director of Student Financial Aid for reconsideration of the aid request and ask for a personal hearing.

**2** If on review of all the facts of the case, including any new information which the applicant may provide the director can make a revised offer which is satisfactory, the case can be closed.

**3** If the director cannot provide a satisfactory solution, he/she refers the written appeal with all pertinent information to the next step. The written record is reviewed by the Director of Admissions, and the applicant may appear in person. Where academic progress is an issue, the student may ask an academic adviser or counselor to write or speak in the student's behalf. If a satisfactory solution is worked out, the case is closed.

**4** If step three did not solve the problem, it is referred to the campus Faculty-Student Committee on Student Aid. In ordinary practice it is rare for a case to be appealed beyond this step.

**5** If, however, the applicant is still not satisfied after review by committee, the case is to be referred to the chancellor.

**6** The next appeal is the President.

**7** The final University appeal would be for the President to refer a case to the Board of Curators.

### Grievance About Grade

#### Recourse for a Student Who has a Grievance About a Given Grade.\*

\*UMSL Senate Policy, revised April 22, 1980

The following grievance procedure is to be followed by any student who believes he/she has received an unjustified grade in a course and wants a review of the matter. It is to be understood that the establishment of criteria for grades is the responsibility of the instructor. The purpose of this grievance procedure is to determine whether the criteria for grading were fairly applied. If these procedures lead to the conclusion that the grading criteria were improperly applied, then the instructor is to be requested to reconsider the grade.

**1** The student's first recourse is to review the issue fully with the instructor involved and then with the department chairperson. This must be done within at most one month after the beginning of the succeeding regular academic semester.

**2** If the issue has not been resolved within at most two weeks, the student should bring the matter to the dean of the school for adjudication by whatever appeals committee the dean's office has established. It is anticipated that nearly all cases would be settled at the department or College or School level.

**3** The decision may then be further appealed to the Senate Welfare and Grievance Committee.

**4** Beyond the Senate Welfare and Grievance Committee, a student may take his/her case to the chancellor.

# Student Organization Policy

## Policy on Student Organizations

The University recognized that the acquisition of knowledge is not confined to the formality of the classroom and that much can be gained through the activities of student organizations. To assure maximum freedom for students and to assure that organizational activities are orderly, responsible and appropriate to the mission of the University, certain principles and procedures are established through which organizations gain University recognition.

### I Procedures for Recognition

A. To obtain recognition, an organization shall submit to the Dean of Student Affairs a registration form which shall include:

- 1 The name of the organization.
- 2 A statement of the general purpose of the organization and the means for accomplishing it. It should demonstrate that the organization has as its purpose to broaden the scope of general learning, extend knowledge of specialized areas, or to serve the professional cultural, social or recreational interests of the University community, consistent with the educational goals of the University. The statement must not conflict with policies governing recognized organizations as listed below.
- 3 The names of at least three officers or responsible representatives, including student numbers, addresses and telephone numbers; these persons must be students registered at the University of Missouri-St. Louis.
- 4 A statement of any affiliation with any other organization not registered with the University, and a copy of the organization's constitution.

Upon submission of the registration form the organization shall be granted temporary recognition until the UMSL Senate Committee on Student Affairs approves or rejects the application.

B. To maintain recognition, an organization must register with the Office of Student Activities no later than two weeks following the beginning of each semester. The registration form must be kept current.

### II Privileges of Recognized Organizations

- 1 Use of campus facilities and services or organizational activities as provided in the University regulations.
- 2 Use of the University name in connection with publicity, but only for identification purposes, and in no way to imply support of the University for any position of the organization.
- 3 Participation in University-sponsored events.
- 4 Application for supplemental financial assistance.

### III Policies Governing Recognized Organizations

- 1 Organizations shall comply with the Rules and Regulations of the University of Missouri and the St. Louis campus.
- 2 Organizations' membership policy shall not discriminate for reasons of color, creed, national origin or sex. Any organization may petition to the Dean of Student Affairs for exemption from the requirement as it applies to sex. Academic and professional organizations which have discriminatory membership policy based on sex shall not be recognized after the beginning of the Fall Semester 1973.
- 3 Organizations' membership shall not be subject to approval by anyone other than the local campus membership.
- 4 Organizations are expected to maintain fiscal responsibility.
- 5 Organizations are encouraged to seek the advice of faculty and other members of the University community.

### IV Procedure for Review of Grievances

A. Any member of the University community may bring charges against a recognized organization for breach of the above policies or procedures.

B. Such charges, except those pertaining to discrimination, are brought initially to the Dean of Student Affairs, who may:

- 1 Dismiss the charges, in which case an appeal may be made to the Senate Student Affairs Committee for its decision.
- 2 Settle the charges in a way acceptable to both parties or,
- 3 Refer the charges to the Senate Student Affairs Committee for its decision.
  - C. Grievances regarding discrimination by reason of race, sex, national origin, color, religion, or disability will be processed through the University of Missouri Discrimination Grievance Procedure for Students.
  - D. Penalties may range from withdrawals of one or more privileges to withdrawal of recognition. Assessment of penalties shall also provide for the conditions leading to reinstatement of such privileges or recognition.
  - E. Either party to the charges may appeal the decision of the Senate Student Affairs Committee or the University of Missouri Discrimination Grievance Procedure for Students panel to the chancellor.



# Equal Opportunity and Affirmative Action Plan

## University of Missouri Plan for Equal Opportunity and Affirmative Action

The University of Missouri is committed to equal employment and education opportunity without regard to conditions of race, color, sex, religion, national origin, age, physical ability or veterans status which are irrelevant to the physical or mental demands of the position or proposed course of study.

The University also is committed to affirmative action to enhance equal opportunities for all.

Each administrative unit of the University employing personnel, admitting students or entering into contracts is charged with implementation of the University's commitments, and with maintaining records to demonstrate good faith efforts, in admission and training, recruiting and hiring, compensating and promoting, layoff and dismissal, granting of tenure, contracting and purchasing, availability of facilities and programs.

As an employer of persons and as an institution accountable to taxpayers and the general public, the University must have administrative and management practices that are designed for the best use of talent for operational effectiveness and efficiency.

### Implementation

#### 1 Recruitment and employment of personnel

a. Recruitment of teachers and academic personnel in research and extension is primarily the responsibility of deans, directors, chairpersons and other department heads.

b. Recruitment of administrative, service and support staff, except for top-ranking administrative personnel, is primarily the responsibility of the personnel office of each campus, and the director of Personnel Service for the central administration. However, selection is the responsibility of the administrative head of the employing unit.

c. Sources of personnel will be advised of the University's commitment to equal opportunity and affirmative action. The University will develop and expand relationships with governmental agencies, community groups and other organizations which may be of assistance in furthering recruitment and employment of more minority groups and handicapped persons and women into departments and units which have imbalances.

d. Imbalances exist when the available, qualified talent among specified minorities, women and handicapped or older groups is proportionately underrepresented in the particular personnel category in the University. The appropriate employment market is generally national or regional for professors, academic personnel in research and extension and major administrators. It is generally state or local community for most administrative positions and for service and support staff.

e. Approximate salary, educational requirements, desired experience and specialty requirements will be established for a particular academic or ranking administrative position by the department or other administrative unit prior to recruiting and evaluating candidates or prospects.

f. Advertisement and notices of employment opportunities will indicate a filing date for consideration.

g. Notice of employment and training opportunities will be made to existing personnel.

h. Employment application forms and goods and services contracts will meet federal and state requirements relating to equal opportunity.

i. The administrative heads of University units authorized to recruit and employ personnel will maintain records to demonstrate efforts and results of efforts to achieve equity and to act affirmatively and reasonably to correct imbalances.

#### 2 Salaries, wages and benefits

a. University compensation and benefit programs will be administered without regard to conditions of race, color, sex, religion, national origin, age or physical ability.

b. The salary range for academic positions will be determined in advance of advertising, notice or recruiting on the basis of prevailing national levels and departmental scales for the educational attainment, experience and specialty desired.

#### 3 Facilities, activities and working conditions

a. University facilities will be maintained on an equitable and nondiscriminatory basis.

b. Physical facilities have been adapted within the limits of the financial resources available to insure access to the University by the physically handicapped.

c. Opportunities for involvement in University activities will be provided on an equitable or nondiscriminatory basis.

#### 4 Promotion and training

a. Promotions, contract renewals, the granting of tenure and reductions in force of academic personnel will be in accordance with established University procedures and qualification criteria already established for all persons and free of discrimination.

b. Promotions, demotion, layoffs, recalls from layoffs, transfers and filling of temporary openings for service and support personnel will be determined without regard to conditions of race, color, sex, religion, national origin, age, physical ability or veterans status which are irrelevant to the duties to be performed.

c. Participation in training and educational programs sponsored by the University, including apprenticeships, will be open to all employees within eligible job classifications. The director of personnel for the University will work with the campuses to formulate specific programs to benefit the maximum possible number of employees.

d. The University will offer training to improve skills of employees that may enhance promotional potential. Training will include programs to correct background deficiencies.

#### 5 Student admission and retention

a. The University will give students equal access to its academic programs without regard to conditions of race, color, sex, religion, national origin, age or physical ability. Furthermore, the University will seek to recruit, enroll, retain and graduate minority group and women in those fields in which they are underrepresented.

b. The University of Missouri has unique responsibility for graduate and professional public higher education in the State of Missouri. Therefore, academic departments offering doctoral and/or advanced professional programs in disciplines and professions in which there is a deficiency of minority group members and women, relative to population, will adopt methods to encourage enrollment, retention and graduation of minority group members and women.

c. Affirmative action will be taken to offer graduate teaching and research assistantships to qualified minority group members and women.

d. Business, government, industry and labor will be solicited to assist minority group members and women through financial aid and work experiences as they are pursuing academic objectives.

e. Personnel representatives of prospective employers using University services and facilities to interview and recruit students must be equal opportunity employers, and will give all qualified students equal opportunity for interviews, without regard to conditions of race, color, sex, religion, national origin, age or physical ability.

f. Affirmative efforts will be made to recruit and employ handicapped and older persons.

# Equal Opportunity and Affirmative Action Plan

## 6 Contracting and purchasing

- a. In contracting and purchasing, and in selecting agents who will contract and purchase, the University will require a commitment of the contractor and further strive to ensure adherence to equal employment laws and regulations.
- b. Invitations for bids of University business will carry language set forth in Appendix A(1). (See UMMSL Student Handbook)
- c. Specifications prepared by the University, or by architectural and engineering firms retained by the University, will carry language set forth in Appendix A (2). (See UMMSL Student Handbook)
- d. Purchase orders of the University will carry language set forth in Appendix A (3). (See UMMSL Student Handbook)

## 7 Appeal and grievance procedures

- a. Grievance procedures are available to receive and process complaints and grievances of alleged discrimination based on conditions of race, color, sex, religion, national origin, age, physical ability or veterans status.
- b. A student grievant will have access to the established channels of appeal through department, school or college, campus, central administration and governing board.
- c. The Affirmative Action Office provides counseling to grievants concerning the grievance procedures.

## 8 Records and reports

- a. The administrative head of each University unit will be prepared to demonstrate that equal opportunity is practiced and that affirmative action is taken in: recruiting and employment of full-time and part-time personnel, admission and retention of students, provision of facilities and programs, purchasing and contracting.
- b. Admission and employment applications and contract bids will be retained for at least two years by the responsible unit, and each responsible administrative unit of the University will be prepared to show that procedures followed and selections made were in compliance with policies on equal opportunity and affirmative action.
- c. Those responsible for recruiting, admitting and retaining students—undergraduate, graduate and professional—will maintain files and records documenting their efforts to provide equal opportunity and act affirmatively to attract and retain minority group members, women and older and handicapped persons. A report will be made at least annually to the appropriate EEO/AA (equal employment opportunity/affirmative action) committee.
- d. Campus administrative officers will have records demonstrating efforts to provide equal opportunity and show affirmative action in the interests of minority group members, women and handicapped and older persons in the availability and use of University facilities, including housing and recreational facilities. A report will be made at least annually to the appropriate EEO/AA committee.
- e. Those responsible for recruiting and employing personnel, including graduate teaching and research assistants, will have records to show their adherence to equal opportunity and affirmative action practices. A report will be made at least annually to the appropriate EEO/AA committee.
- f. Those responsible for purchasing and contracting will maintain records showing adherence to University policies on equal opportunity and affirmative action. A report will be made at least annually to the appropriate EEO/AA committee.
- g. Academic or administrative units receiving complaints or grievances based on allegations of discrimination will report those cases to the appropriate EEO/AA committee immediately, whether or not the committee is a step in the grievance review procedure of the campus or other University unit.

## 9 Review and monitoring

- a. A University Committee on Equal Employment Opportunity and Affirmative Action (EEO/AA) will be appointed annually by the President of the University.
- b. A campus EEO/AA committee will be appointed annually by each chancellor.
- c. The vice president for University Extension will appoint annually an EEO/AA committee for University Extension.
- d. EEO/AA committee membership will include a reasonable cross section of personnel, including a representation of women, minorities and the handicapped.
- e. The EEO/AA committee shall advise the AA officer regarding affirmative action problems and policy.
- f. The central administration, University Extension and each campus may have one or more staff affirmative action officers to assist the responsible administrative officer in carrying out equal opportunity and affirmative action policies. A staff affirmative action officer may be designated by the responsible administrative officer to counsel a complainant concerning the grievance procedures.
- g. Administrative officers (president, vice presidents, chancellors, deans, directors, department chairpersons and all other supervisory personnel) are responsible for implementation of equal opportunity and affirmative action policies and practices within their areas of jurisdiction, and the effectiveness of implementation will be an element in the evaluation of the performance of each officer.

## 10 Dissemination

- a. Equal opportunity and affirmative action policies and programs will be disseminated throughout the University and discussed at appropriate school, college, departmental, management and supervisory meetings. Among subjects to be covered are attraction, admission and retention of students; recruitment, employment, training, promotion and transfer of employees.
- b. University employees, faculty, staff and students will be kept informed of equal opportunity programs and affirmative action goals through University and campus publications and communications, the *Business Policy and Procedure Manual*, divisional and departmental meetings, staff orientation programs, posters, etc.
- c. A cross section of community organizations, news media, area colleges, secondary schools and recruiting sources will be furnished copies of equal opportunity and affirmative action programs of the University and informed of revisions of the University's nondiscrimination policies.
- d. Copies of the complete statement of programs will be made available on request to employees, applicable government agencies and contractors or subcontractors.
- e. University invitations to bid, purchase orders and specifications to architects and engineers will indicate the University's equal opportunity policy.
- f. University correspondence, employment notices and advertising, academic information and other public notices will indicate the University's equal opportunity policy.

## Other Procedures or Regulations

### Sexual Harassment

1 Sexual harassment may be defined as unsolicited nonreciprocal behavior involving a person who is in a position to control or affect another University employee's job or student's status as a student and who is using that authority and power to coerce that employee or student to submit to sexual activity or to punish their refusal to submit and/or who is using that authority and power to sexually harass the employee or student.

2 Individuals who believe they have been sexually harassed may discuss the problem with the Director of Affirmative Action, the Dean of Student Affairs, or the Coordinator of the Women's Center, who can inform the individual of available courses of action. See also Discrimination Grievance Procedure, below.

### Professional Responsibility, Protest and Political Activities

#### Statement of Professional Responsibilities, Protest and Political Activities Adopted September 5, 1970

In a community of learning, willful disruption of the educational process, destruction of property, and interference with the rights of other members of the community will not be permitted.

Academic and administrative procedures of this University provide for prompt and appropriate disciplinary action against those who abuse such rights as provided in the statement by the President regarding student demonstrations adopted by the Board of Curators on June 30, 1968. That statement as well as the Standard Conduct and Rules of Procedure in Student Disciplinary Matters is available to all students.

We endorse the statement submitted August 26, 1970, suggested by a special committee of the Inter-campus Faculty Council charged by the President with the development of a statement on faculty responsibility, as follows: The Board of Curators and the Faculty affirm their intention of keeping the University of Missouri in full operation throughout the coming academic year. The Board expects that the faculty will meet their professional obligations in accordance with already existing regulations and principles of academic responsibility regarding the meeting of classes and the awarding of grades and credit.

The Board of Curators hereby charges the faculty to re-examine and re-affirm its professional responsibilities and to develop procedures for dealing with cases in which those responsibilities are not fulfilled. We ask that this task be completed with full faculty consultation and with reasonable speed.

Until each campus develops a full set of procedures for dealing with alleged violations of professional ethics, the Board charges each campus faculty-governing body to establish immediately a temporary group for handling such cases as may arise.

The Board of Curators recognizes that any definition of faculty responsibility developed by a faculty group or groups on any campus must provide that the initial and primary responsibility for the effective function of the academic unit, including disciplinary action, resides in the administrative officers of the department, division, school or college.

Students, faculty, administrators and employees who are not in sympathy with the basic philosophy expressed herein and do not intend to abide by the rules and regulations of the University should not attend the University nor become associated with the institution nor continue to be associated with the University.

### Discrimination Grievance Procedure for Students

1 It is the policy of the University of Missouri to provide equal opportunity for all enrolled students and applicants for admission to the University on the basis of merit without discrimination on the basis of their race, color, religion, sex, national origin, age or disability. Sexual harassment shall be considered discrimination because of sex. Persons with disabilities may utilize this procedure if an impairment of any mental or physical function or activity creates a substantial barrier to employment and/or education.

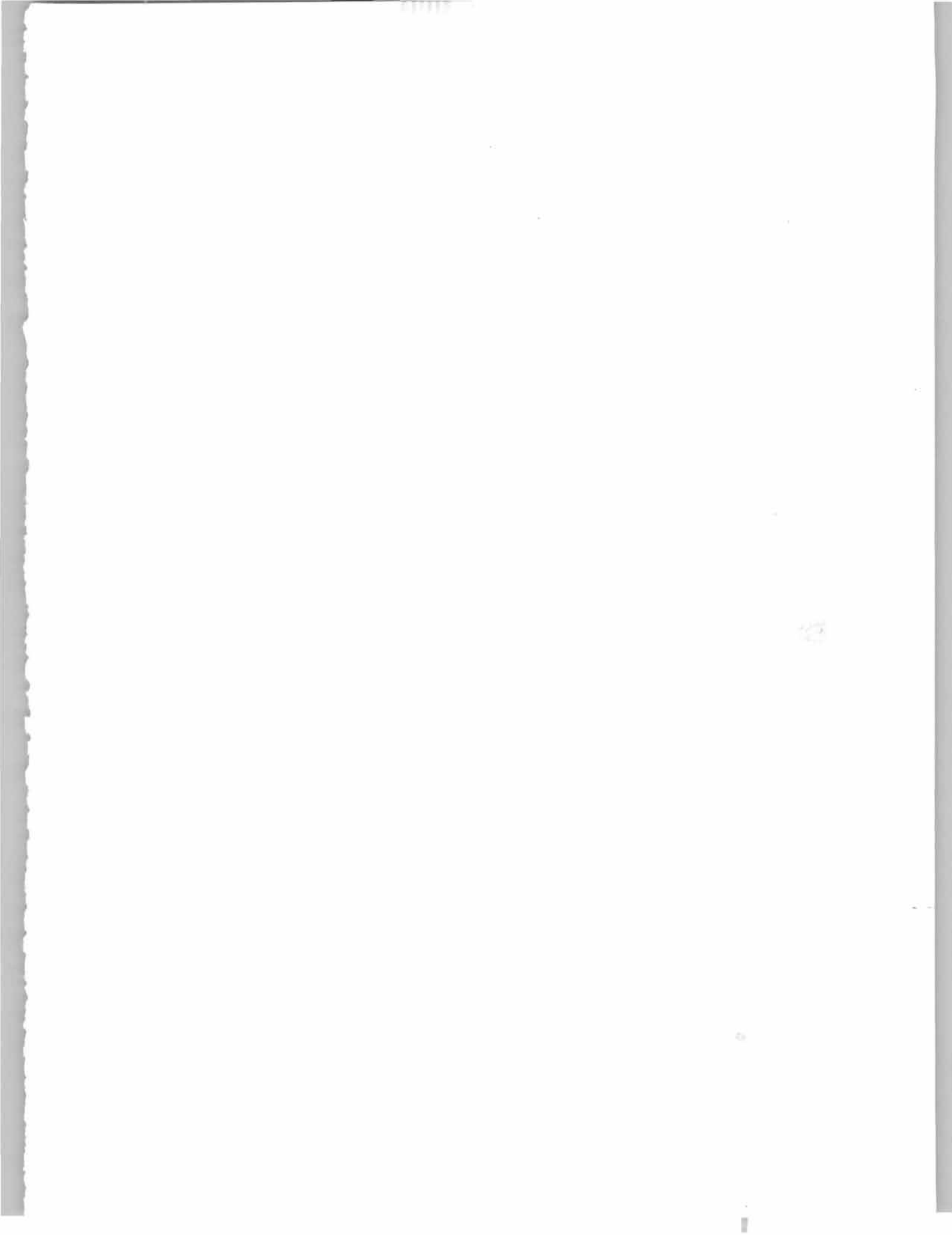
2 A grievance is the written allegation of discrimination which is related to:

- A. Recruitment and admission to the institution
- B. Admission to and treatment while enrolled in an educational program
- C. Employment as a student employee on campus, or
- D. Other matters of significance relating to campus living or student life, including, but not limited to: assignment of roommates in residence halls, actions of fraternities and sororities, membership in/or admission to clubs/organizations, Student Health Services, or financial aid awards.

3 Individuals who believe they have been discriminated against should obtain a copy of the Grievance Procedure form from the Office of the Vice Chancellor for Student Affairs. The following information is necessary:

- A. A clear concise statement of the grievance which includes the name of the person(s) against whom the grievance is made, the date(s) of the alleged discrimination and a statement describing the specific supporting evidence;
- B. A brief summary of the prior attempts to resolve the matter which includes the name of persons with whom the matter was discussed and the results of those previous discussions;
- C. A specific statement of the remedial action or relief sought.

Copies of the Discrimination Grievance Procedures for students are available from the Office of the Vice Chancellor for Student Affairs, 301 Woods Hall.





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