# Graduate College 

Bianca L. Bernstein, Ph.D.

Through the faculty, Arizona State University's Graduate College offers programs to meet the educational needs of those who already hold baccalaureate and master's degrees. While many students prepare for careers in research, the professions, and the arts, others study for personal enrichment. Both part-time and full-time students are enrolled in 90 master's and 46 doctoral majors encompassing hundreds of concentrations and specialties. Other students explore new areas of interest or prepare for career advancements apart from formal degree programs.

The size, strength, and diversity of the graduate community reflect the university's commitment to high quality education. As a major center for graduate education, ASU supports cultural and intellectual activity as well as research in a broad range of arts and sciences and professional disciplines; in addition, the university conducts research addressing the social, cultural, and economic growth and development of Arizona and the Southwest.

One distinctive project that magnifies our dedication to graduate students is our Preparing Future Faculty program, funded by the Pew Charitable Trusts and ASU. The program is designed to educate students about faculty roles and prepare doctoral students specifically for faculty positions in our nation's colleges and universities.

This past year, about 2,000 ASU graduate students were awarded prestigious fellowships and scholarships, exceeding $\$ 3.5$ million. These awards were funded by the National Science Foundation. NASA, the Ford Foundation, Fulbright, and other public agencies and private foundations.

ASU assisted close to 1,400 outstanding graduate students through academic and tuition scholarship and other financial support programs-the total financial support amounted to $\$ 4.8$ million, exemplifying ASU's commitment to enabling student success.

The university's funded programs, together with our more than 30 research centers and institutes, provide assistantships and training for many of our graduate students; further, the centers coordinate conferences, colloquia, and special seminars to heighten the learning experience. The Office of the Vice Provost for Research provides seed money to empower our faculty and students to work at the frontiers of knowl-
edge. Such activities continually encourage the creative embrace of change and experimentation.

ASU provides numerous choices in student life, for personal enrichment as well as cultural interaction. Many internationally known speakers present lectures here, bringing together faculty, graduate students, and the community to engage in stimulating dialogue.

Intellectual Environment. About 11,000 students from all 50 states and more than 100 nations are enrolled in graduate study at the university. The size and diversity contribute to a cosmopolitan setting that is ideal for intellectual discourse and stimulation. As a balance to this large grouping of students, individual graduate programs conduct small colloquia and seminars where students and faculty discuss their work in an intimate, intellectual environment supportive of student development. The result is a spirited, lively atmosphere in which students and faculty members get to know each other through collaborative research and intellectual exchange.

## GRADUATE PROGRAMS

## Degree Programs

Although graduate degree programs differ in many ways, they all share two important characteristics. First, in comparison to baccalaureate programs, they demand a deeper and broader understanding of a body of knowledge in a recognized discipline or profession. Second, in master's and especially in doctoral programs, graduate students prepare to make original contributions to their fields through research and other creative activities of a high order. In contrast, then, to the broad-based baccalaureate degree, graduate degrees are specialized. ASU offers several types and levels of postbaccalaureate degrees.
For admission information and procedures, access the Web site at www.asu.edu/graduate/admission or refer to the Application for Graduate Admission booklet.

Master's and Doctoral Work. Many students pursue a master's degree to satisfy their own quest for learning. In some disciplines, such as dance or architecture, the master's degree is normally the terminal or final degree. In other fields, students enter master's programs as the first step toward more
advanced work, such as doctoral studies, which prepare students for a lifetime of intellectual inquiry and creativity or for the application of knowledge to professional practice.

Research Degrees. Students at ASU may pursue research-oriented or prac-tice-oriented degrees. Research-oriented degree programs-the Master of Arts (M.A.), Master of Science (M.S.), and Doctor of Philosophy (Ph.D.)prepare students for careers of research and scholarship in governmental, business, and industrial organizations, or in university or college teaching. Students in these programs develop abilities to evaluate existing knowledge critically and extend it into fresh areas of inquiry and scholarship.

Professional Degrees. The professional or practice-oriented degree programs have slightly different names and distinct academic missions. The names of the degrees are commonly tied to the academic unit offering the program, for example, Master of Busi-
ness Administration (M.B.A.), Master of Music (M.M.), Master of Social Work (M.S.W.), and Doctor of Public Administration (D.P.A.). With the objective of preparing students for professional practice, such programs require rigorous preparation in the fundamental literature and scholarship of the field. Some degrees require demonstrated expertise through an internship, an exhibition (art), a performance (dance), or a recital (music). Examples of ASU fields in which academic units offer professional programs include architecture and design, business, education, engineering, health services administration, law, nursing, public administration, and social work.

## Nondegree Graduate Study

Many serious students enter graduate studies not intending to obtain a new degree but rather to enhance personal knowledge. They may want to advance in their present career, acquire the background to make a career change, or make up academic deficiencies before entering a degree program. All gradu-
ate students, degree or nondegree, enjoy the benefits of cultural and intellectual activities at the university, such as colloquia, seminars, and conferences focusing on the latest scholarship in the field. By consulting with appropriate academic units, students can learn which courses are suitable to their needs.

For admission information and procedures, access the Web site at www.asu.edu/graduate/admission or refer to the Application for Graduate Admission booklet.

## Student Services for Nondegree

 Students. The Graduate College maintains an advising office open yearround. See page 56 for more information.
## Graduate Studies and University Environment

The Graduate College spans the university in supervising graduate studies and offering all postbaccalaureate degrees except the Juris Doctor, which is administered by the College of Law.

## Interdisciplinary Graduate Degrees, Majors, Concentrations, and Certificates Overseen by the Graduate College

| Major | Degree | Administered by |
| :--- | :--- | :--- |
| Creative Writing <br> Curriculum and Instruction <br> Concentrations: curriculum studies, early <br> childhood education, educational media and <br> computers, elementary education, English <br> education, exercise and wellness education, <br> music education, physical education, reading <br> education, science education, special education | M.F.A. | Creative Writing Committee <br> Interdisciplinary Committee on Curriculum <br> and Instruction |
| Exercise Science <br> Concentrations: biomechanics, motor behavior/ <br> sport psychology, physiology of exercise | Ph.D. |  |
| Gerontology |  |  |
| Justice Studies <br> Concentrations: criminal and juvenile justice; <br> dispute resolution; law, justice and minority <br> populations; law, policy, and evaluation; <br> women, law, and justice | Certificate | Ch.D. |

Since more than 1,600 ASU faculty members teach graduate students in more than 115 instructional units, the Graduate College works closely with the other colleges and academic units. In most cases, graduate instruction is offered by units that also provide related undergraduate programs.

Interdisciplinary Study. Although most graduate programs are offered by academic units, diverse interdisciplinary programs cross academic disciplines and come under the supervision of the Graduate College. Many majors are in fields that are still emerging as recognized academic disciplines and, therefore, do not customarily form the academic basis for departments. Other fields of study are inherently interdisciplinary and do not fit well with conventional disciplines around which departments are formed. Curricula must reflect intrinsically broad disciplinary affinities, and faculty must be drawn from more than one academic unit.

Currently, the Graduate College oversees nine interdisciplinary programs and has joint responsibility with the College of Education for another; several others are planned. Existing programs include the Gerontology Program (Certificate in Gerontology jointly offered by ASU Main and ASU West), Creative Writing (M.F.A.), Curriculum and Instruction (Ph.D.) (jointly administered with the College of Education), Exercise Science (Ph.D.), Justice Studies (Ph.D.), Public Administration (D.P.A.), Science and Engineering of Materials (Ph.D.), Speech and Hearing Science (Ph.D.), Statistics (M.S.), and Transportation Systems (Certificate in Transportation Systems).

Other interdisciplinary degree programs include Communication (Ph.D.) (administered by the College of Public Programs), Humanities (M.A.) (administered by the College of Liberal Arts and Sciences), and Molecular and Cellular Biology (M.S., Ph.D.) (administered by the College of Liberal Arts and Sciences).

Each of these programs utilizes resources and faculty from several disciplines. They promote cooperative research and instruction among faculty who share common interests but are housed in different academic units. They allow students to pursue degrees that are intellectually coherent but that bring together diverse strengths of the
university. See the "Interdisciplinary Graduate Degrees, Majors, Concentrations, and Certificates Overseen by the Graduate College" table, page 54.
Interdisciplinary Committee on Linguistics. Linguistics at ASU is interdisciplinary in nature. The linguistics faculty come from the Departments of Anthropology, Communication, Computer Science, English, Languages and Literatures, Philosophy, Psychology, and Speech and Hearing Science, and from the College of Education.

The Interdisciplinary Committee on Linguistics coordinates linguistics courses and programs, provides advising, and hosts conferences and lectures.

Faculty from three departments (Anthropology, English, Languages and Literatures) offer programs with concentrations in linguistics. The programs are: M.A. in Anthropology, M.A. in English, M.A. in Spanish, and the Master of Teaching English as a Second Language.

Certificate Programs. A number of certificate programs are offered by various academic units or programs on campus (see the "Certificates" table on this page).
Research Programs. ASU continues to advance as a major research institution. The Office of the Vice Provost for Research provides leadership in obtaining external funding and in coordinating and administering sponsored projects. Many graduate students receive financial support and gain first-
hand experience as they participate with faculty members in carrying out these research projects.

Much of this work is associated with campus research centers that help to develop proposals, coordinate activities, and bring together in colloquia and conferences students and faculty with common intellectual interests. Such centers include the Center for SolidState Science, the Manufacturing Institute, the Institute of Human Origins, the Hispanic Research Center, and the Preventive Intervention Research Center. For further information on centers and institutes, refer to pages 33-40.

Research Facilities. The university lends support to research in diverse ways, including extensive facilities for research and instructional programs. Recently built facilities include an architecture building, a fine arts complex, the Goldwater Center for Science and Engineering, an addition to the Life Sciences Center, and the Computing Commons. The Engineering Research Center, built as part of the Engineering Excellence Program, houses advanced facilities such as the Molecular Beam Epitaxy laboratory and a clean room for microelectronic device fabrication. Other facilities supporting research on campus are the Institute for Studies in the Arts, in the College of Fine Arts; the Facility for High Resolution Electron Microscopy, in the College of Liberal Arts and Sciences; and the Southwest Archaeological Collection in the Department of Anthropology.

## Certificates

| Certificate Program | Administered by |
| :--- | :---: |
| Certificate in Gerontology | Jointly offered by ASU Main <br> and ASU West |
| Certificate in Hazardous Materials and <br> Waste Management | ASU East |
| Certificate in Medieval Studies | Arizona Center for Medieval <br> and Renaissance Studies |
| Certificate in Museum Studies | Department of Anthropology |
| Certificate in Renaissance Studies | Arizona Center for Medieval <br> and Renaissance Studies |
| Certificate in Scholarly Publishing | Department of History <br> Certificate in Translation |
| Department of Languages |  |
| Certificate in Transportation Systems | and Literatures <br> Committee on Transportation <br> Systems |

Library System. The ASU library system is a major research facility (see also page 30). It contains more than 3 million volumes of books and approximately 6.6 million pieces of microforms and subscribes to more than 36,000 journals and serials. Among the nation's research libraries, it is in the top quarter in annual volume acquisition. It is especially strong in amassing current monographs and serials to support graduate programs. Some of the most important research collections include manuscripts and rare photographs on Arizona and Southwest topics and an excellent collection of social science materials on Southwestern and border studies topics, including materials on northwestern Mexico. In the humanities, the main library has a fine collection of literary works and literary criticism from small and major presses in American and English literature. The collection on child drama is also outstanding. A growing rare book and manuscript collection supports the research interests of academic units. The Arthur Young Tax Library emphasizes accounting and law. The Noble Science and Engineering Library is a designated U.S. Patent Depository and as such is one of fewer than 30 U.S. academic libraries to receive copies of all new patents. The entire collection of U.S. patents in microfilm is housed in the Noble Library.

The libraries contain extensive U.S. and Arizona government documents and selected international documents.
Branch libraries provide important specialized collections. The Music Library contains scores and sound recordings. The Architecture and Environmental Design Library houses a nationally recognized set of materials on solar energy and research collections on the work of Frank Lloyd Wright and Paolo Soleri as well as other Arizona architects.

The libraries offer excellent support to researchers interested in electronic information sources. The online library system incorporates the usual catalog to ASU library holdings as well as several other important electronic reference databases and gateways. Bibliographic information on the library holdings can be accessed from any location in the world via a modem-equipped microcomputer.

The library system belongs to the Center for Research Libraries, permitting access to the center's vast collections of materials for extended loan periods.

## Graduate Student Support Services

Providing academic and professional development support to graduate students is an important part of the Graduate College mission. Services include advising, individual mentoring for disadvantaged students, and financial support, as well as orientation sessions, workshops, career seminars, and research conferences.

The Graduate College Student Programs/Services maintains a variety of programs specifically for graduate and nondegree students.

## Graduate College Financial Assis-

tance Office. The Graduate College Financial Assistance Office meets the needs of graduate and professional students. Students may receive financial services at Wilson Hall, without having to visit other offices on campus. Students are offered general information about graduate financial assistance at ASU, may turn in documents, or receive status information on their student loans. Students can also apply for emergency short-term loans or pick up forms to report special circumstances. Staff members are available to help students with financial assistance concerns. Refer to pages $48-50$ for a full description of graduate financial support and services or visit the Web site at www.asu.edu/graduate/gradaid.

## Advising and Career/Professional

 Development. Many graduate students have questions and concerns about which degree to pursue, how to combine their student roles with parenting, partnering and worker roles, and what to do with their degrees upon graduation. The Graduate College provides the following resources.Advising. The Graduate College's Academic Advising Office supplies general information about policies, procedures, requirements, and support services. Appointments are available throughout the year.

Students with regular admission status should contact their academic unit for degree program advisement and program of study planning.

## Career/Professional Development

 Seminars. The Graduate College, in conjunction with Counseling \& Consultation, offers seminars to groups of graduate students interested in exploring career-related subject matters. Examples of seminar topics are dual career issues, the impact of values on career decision making, and transferable skills.Career Planning Services for Graduate Students. In conjunction with Career Services and Counseling \& Consultation, the Graduate College provides a brochure listing numerous career planning services for graduate student needs. This publication is also available at www.asu.edu/career.

Diversity Programs. The Graduate College's Diversity Programs are designed to increase the number of graduate students from groups underrepresented in their chosen field of study. Students interested in these programs must first go to their respective departments for nomination.
Diversity Assistantship Program (DAP). The purpose of this meritbased program is to support research and creative activities related to a student's field of study. Nominations are made by departments and recipients are supervised by a faculty member.
Academic Support Program (ASP). The purpose of ASP is two-fold: financial assistance and peer mentoring. ASP is available primarily to first-year students; however, departments are asked to provide a student's subsequent funding. The program is based on financial need and the nominations of students by departments. Financial support is provided in the form of federal work-study to support field-related research that is supervised by a faculty member. For additional academic support, a student meets weekly with an assigned peer mentor who is two or more years advanced in the academic program.
Orientations. Each semester, the Graduate College hosts orientations for new graduate students and teaching assistants (TAs).

In addition to the General Orientation, teaching assistants have the opportunity to enrich and enhance their teaching through seminars offered each semester. At least two seminars are mandatory for first-time TAs. Among
other topics, TAs can attend sessions on teaching lab sciences, human diversity, critical thinking, classroom management, ethical issues, and multimedia applications in the classroom.

## Workshops for Undergraduate Stu-

 dents Considering Graduate Education. The Graduate College holds workshops to address the issues that students contemplating graduate study should consider. The purpose of graduate study, the choices among research and professional degrees, the selection of schools to apply to, and the types and sources of financial support are among the topics discussed.Student Organizations. The Graduate Student Council is part of the Associated Students of Arizona State University (ASASU), the student government for the university. The Graduate Research Support Office represents graduate student interests within ASASU and the Office of Student Life. It assists the Graduate College in planning orientations and other student-related activities
and funds with the Graduate College small research grants to support graduate students' thesis and dissertation projects. In addition to the Council, many other special interest organizations are open to graduate students.

Format Office. The thesis, dissertation, or equivalent is the culmination of an important stage of graduate studies. By researching and writing this final work, graduate students are able to show that they have acquired skills essential to a discipline. The Graduate College publishes a Format Manual as a guide in preparing the master's or doctoral document.

Publications Program. The Graduate College publishes a number of brochures, fliers, and other items during the year.

## Graduate Council

The Graduate Council establishes general policies for graduate programs and serves as an advisory board to the dean. As part of its duties, the council
reviews proposals for new degree programs and concentrations, regularly conducts reviews of established graduate programs, and sets policies and general standards for admissions. Sixteen faculty and one student serve on the council, representing a wide variety of degree programs, with at least one member representing each college in the university. Council members are appointed by the president of the university.

## Offices of the Graduate College

The general offices of the college, including those of the dean, admissions, advising, financial assistance, and operations are located on the first floor of Wilson Hall in the center of campus. College offices are open from 8:00 A.m. to 6:00 P.m. Monday through Thursday; 8:00 A.м. to 5:00 p.м. on Friday. The Graduate College may also be contacted by e-mail at asugrad@ asu.edu or telephone 602/965-3521. The Web address is www.asu.edu/ graduate.

# College of Architecture and Environmental Design 

\author{ John Meunier, M.Arch.<br><br>John Meunier, M.Arch. }

## PURPOSE

The college provides graduate education for professional, research, and academic careers in architecture, design, environmental resource management, and urban planning. Students in the master's programs benefit from small classes, seminars, and studios, from close, individual contact and faculty mentorship, and from an interdisciplinary curriculum. Students and faculty make full use of the Phoenix metropoli$\tan$ area and the Sonoran region as research bases and profit from strong interaction with the professional communities. The faculty have earned national reputations in energy-efficient design, computer-assisted design, corporate interior design, design for special populations, urban design, and environmental policy. Programs of study, including internship and trainee opportunities, give graduates the best possible start on academic, research, and professional careers.

## ORGANIZATION

The college has three academic units: the School of Architecture, the School of Design, and the School of Planning and Landscape Architecture. The units and their faculty have strong ties with programs and faculty in business, computer science, construction, engineering, fine arts, geography, biological sciences, agribusiness, and public affairs.

## GRADUATE PROGRAMS

The new Ph.D. degree program in Environmental Design and Planning is a collegewide interdisciplinary degree offered by faculty representing the different disciplines comprising the Schools of Architecture, Design, and Planning and Landscape Architecture. Three areas of concentration are available: design; planning; and history, theory and criticism.

Faculty in the College of Architecture and Environmental Design offer six master's degree programs through the Graduate College: a professional program leading to the NAAB accredited degree Master of Architecture (the two-year as well as three-plus-year programs), a professional graduate program leading to the PAB accredited Master of Environmental Planning degree, a research and applications M.S. in Building Design, a M.S. degree in Environmental Resources, and the

Master of Science in Design degree in Design with concentrations in graphic design, industrial design, and interior design. Faculty in the School of Architecture offer the Master of Architecture and the M.S. degrees in Building Design. Faculty in the School of Planning and Landscape Architecture offer the Master of Environmental Planning and the M.S. degrees in Environmental Resources. Faculty in the School of Design offer the professional Master of Science in Design degree.

## ADMISSION REQUIREMENTS

Applicants to each of the seven graduate degree programs must meet Graduate College admission requirements, in addition to requirements of the academic unit offering the program. For application requirements and deadlines of the Graduate College, see pages 89-90. For application requirements and deadlines of each program, see the following pages: Ph.D. in Environmental Design and Planning, pages 198-200; Master of Architecture, pages 99-100; Master of Environmental Planning, pages 200-201; M.S. degree in Building Design, pages 142-143; M.S. degree in Environmental Resources, page 202; and Master of Science in Design degree in Design with concentrations in graphic design, industrial design, and interior design, pages 112114.

Doctor of Philosophy Degree in Environmental Design and Planning. Applicants to the Ph.D. program must have completed a master's degree in architecture, industrial design, interior design, landscape architecture, or planning, or must be able to demonstrate equivalent standing. The degree is structured as a 54 -hour postmasters program, and not as an 84 -hour postbaccalaureate program. The following test scores are required: Graduate Record Examination scores and Test of English as a Foreign Language (TOEFL) score of at least 600 from applicants whose native language is not English.
Master of Architecture. Applicants to the two-year program must have completed a four-year baccalaureate degree with a major in architectural studies or a similar preprofessional degree in architecture. The degree should be from an institution offering a National Architectural Accreditation Board-accredited

## College of Architecture and Environmental Design Graduate Degrees, Majors, and Concentrations

| Major | Degree | Administered by |
| :--- | :--- | :--- |
| Architecture | M.Arch. | School of Architecture <br> Building Design <br> Concentrations: computer-aided design, <br> energy performance and climate-responsive <br> architecture, facilities development and <br> management |
| Design <br> Concentrations: graphic design, industrial <br> design, interior design | M.S. | M.S.D. | School of Design | Environmental Design and Planning |
| :--- |
| Concentrations: design; history, theory, and <br> criticism; planning <br> Environmental Planning <br> Concentration: urban planning <br> Environmental Resources |

degree in architecture. Applicants to the three-plus-year program must have completed a four-year baccalaureate degree in any discipline. International applicants whose native language is not English must achieve a TOEFL score of 550 or above.
M.S. Degree in Building Design. Students who have completed a professional baccalaureate degree in architecture (five or six years) or a baccalaureate degree in engineering or a related area and wish to pursue advanced study and research may apply for admission to this program. International applicants whose native language is not English must achieve a TOEFL score of at least 550 .

## Master of Environmental Planning.

Applicants must hold a baccalaureate degree. International applicants whose native language is not English must achieve a TOEFL score of 550 or above.

## M.S. Degree in Environmental

Resources. Applicants are expected to have completed 18 semester hours in environmental sciences or closely related subjects and hold a baccalaureate degree.

## Master of Science in Design Degree

in Design. Applicants must hold a baccalaureate degree in graphic design, industrial design, interior design, or a related design discipline as determined by the School of Design Graduate Program Committee. International appli-
cants whose native language is not English must achieve a TOEFL score of 550 or above.

## SPECIAL PROGRAMS

A concurrent Master of Architecture/ Master of Business Administration degree program is available. The School of Architecture also offers programs for study in Paris and Italy. Also, a selective summer internship program places highly qualified students in nationally known American firms.

The Master of Environmental Planning program has special ties with the professional planning community and offers students considerable interaction with practitioners in the field, as well as experience in local planning offices and agencies.

The Master of Science in Environmental Resources program often works with state and federal agencies concerned with a range of investigations from hydrology research and shrub control to livestock and wildlife concerns.

All of the master's programs are interdisciplinary in focus and require or strongly recommend course work in other programs, departments, and colleges. Each program works with affiliated and associated faculty from other units within the college. Also, faculty from such areas as geography, engineering, public affairs, business, transportation, environmental studies, and fine arts collaborate with the faculty and graduate students of the college.

## COLLEGE FACILITIES

With the opening of the award-winning expansion to the Architecture building in spring of 1989, the college consolidated its facilities into a single complex and more than doubled the space available for instruction, research, and service activities. Expanded facilities include the library, the shop, studios, faculty and administrative offices, and research facilities. Research and special project rooms include a high-bay research laboratory, a lighting laboratory, community outreach and design excellence studios, a materials resource center, as well as a solar instrumentation laboratory and a rooftop outdoor solar and day lighting testing area. The college is especially proud of its computer facilities and the faculty-graduate student computer research laboratory. The university also maintains a computer site in the building and there is a local area network that ties together faculty, studio, and library resources. Emphasis is on miniand microcomputer modeling, simulation, and design applications. (Also refer to the description of computing facilities and services on pages 31-32.) Teaching and research activities are also supported by a media center with photography and video services and a slide and media library. Individual studio work space is available to graduate students and the expansion features extensive jury, review, and display space.

As a branch of the university library, the college library is located in the expansion and provides easy access to books, periodicals, and reference materials for students and faculty. The collection includes approximately 30,000 volumes. Special research collections on the work of Paolo Soleri and Frank Lloyd Wright are located in an archival quality special collections suite.
The Gallery of Design is one of eight university galleries and museums. It provides premium space for traveling exhibitions and exhibitions of student and faculty work.

## ADVISING

Architecture. Students should contact the graduate secretary for general information about the school's programs and procedures. In addition, a graduate coordinator is available for preadmission and general advising. Upon
enrollment, each student is assigned a faculty advisor for continuing assistance. Call 602/965-3536 or e-mail arch.grad@asu.edu for more information.

Design. Preadmission information, advising, and continued support are provided by the director of the school and the graduate program coordinator. Call 602/965-4135 for more information.

Planning. The school director provides preadmission information and general advising. Each admitted student is initially assigned a faculty advisor but may later select a supervisory chair. This faculty member later serves as a chair of the committee. Call 602/ 965-7167 for more information.

## ACCREDITATION

The Master of Architecture is fully accredited by the National Architectural Accrediting Board (NAAB). The

Master of Architecture requires a minimum of three years of study following an unrelated bachelor's degree or two years following a related preprofessional bachelor's degree. This professional degree is structured to educate those who aspire to registration/licensure as architects. See pages 21-22 for more information.

The School of Architecture is a full member of the Association of Collegiate Schools of Architecture, the Environmental Design Research Association, and the Architectural Research Centers Consortium.

The programs in the School of Planning and Landscape Architecture are affiliated with the Association of Collegiate Schools of Planning and the Council of Educators in Landscape Architecture.

The Master of Environmental Planning program is accredited by the Planning Accreditation Board.

## College of Business

Larry E. Penley, Ph.D.

## PURPOSE

The College of Business is a professional school that pursues excellence in instruction and research. The pursuit of excellence in programs of instruction implies that the college admits only students who are especially well qualified for the study of business and who will, upon graduation, compete successfully for highly desirable positions, both nationally and internationally.

The mission of the College of Business is to expand the knowledge of business and to educate men and women for managerial leadership through research activities and professional educational programs that address issues of importance to future managers in a world characterized by racial, cultural, and gender diversity in the work force; demands for continuous improvements in quality; growing technological sophistication; and globalized markets.

The College of Business is a comprehensive research school of business that selects and retains faculty based on their ability to use their teaching and research skills to fulfill its mission.

The College of Business, through its research support, its Seidman Institute programs and centers, and its doctoral programs develops knowledge that is important to managers and the management of organizations. It endorses joint research projects that are not only supported by business but include managers as partners in the research objectives, process, and outcomes.

The College of Business anticipates that its mission will lead to research and professional degree programs that will result in its being recognized among the top schools of business in the U.S. Strategies to achieve its mission include an emphasis on the M.B.A. degree, increasing its quality such that it is competitive with the best 25 programs found at other large public schools of business, and developing a curriculum that incorporates the knowledge, skills and abilities identified in the mission of the college.

Strategies also include, relative to the doctoral program, raising admission standards, increasing stipends, assuring that students possess the teaching and research skills necessary for placement at peer schools of business. Consistent with the mission, an additional strategy
is to improve retention and graduation rates of minority students through programs at the M.B.A. and doctoral levels.
Finally, the college will, through its Seidman Institute, increase the level of funded research by adding support services to facilitate grant preparation and by clarifying the mission of research centers as liaisons between faculty and businesses.

## ORGANIZATION

The college's seven academic units and several centers serve more than 1,400 graduate students enrolled in eight graduate degree programs. Academic units contributing to graduate offerings include the School of Accountancy and Information Management, the School of Health Administration and Policy, and the Departments of Business Administration, Economics, Finance, Management, and Marketing. The Seidman Institute serves as the college's focal point for applied research, and several centers are organized in conjunction with the Seidman Institute: the Arizona Real Estate Center, the Bank One Economic Outlook Center, the Center for Advanced Purchasing Studies, the Center for Business Research, the Center for Financial Systems Research, the Center for Services Marketing and Management, and the Lincoln Center for Ethics.

## GRADUATE PROGRAMS

The M.B.A. program is the premier professional degree in the College of Business. The college offers the traditional full-time program, an Executive M.B.A. program, an evening program for working managers, and a program for high technology professionals at the ASU Research Park. The faculty also offer the Ph.D. degree in Economics and in Business Administration, with concentrations in accountancy, finance, health services research, information management, management, marketing, and supply chain management. Other master's offerings include the Master of Accountancy, Master of Health Services Administration, and M.S. degrees in Information Management and in Economics, an interdisciplinary program leading to a M.S. degree in Statistics, and the Master of Taxation.

College of Business Graduate Degrees, Majors, and Concentrations

| Major | Degree | Administered by |
| :--- | :--- | :--- |
| Accountancy | M.Acc. | School of Accountancy and Information <br> Management |
| Business Administration <br> Business Administration <br> Concentrations: accountancy, finance, health | M.B.A. | College of Business <br> services research, ${ }^{1}$ information management, |
| management, marketing, supply chain management Business |  |  |
| Economics |  |  |
| Health Services Administration | M.S., Ph.D. | Department of Economics <br> School of Health Administration and <br> Policy |
| Information Management | M.H.S.A. | School of Accountancy and Information <br> Management |
| Statistics | M.S. | Committee on Statistics <br> Taxation |
|  | M.S. ${ }^{2}$ | M.Tax. |

1 Applications for this program are not being accepted at this time.
2 This program is administered by Graduate College. See "Graduate College," pages 54-55.

## ADMISSION REQUIREMENTS

Applicants to all degree programs must meet the minimum Graduate College academic requirements. Acceptance is based on the applicant's previous college record, all relevant data provided with the application, and scores from the Graduate Management Admission Test or the Graduate Record Examination (GRE). GRE scores are required for the Economics programs only. Some degree programs require the submission of a statement of purpose from applicants and letters of recommendation. In addition, Test of English as a Foreign Language and Test of Spoken English scores are required of international applicants whose native language is not English.

## SPECIAL PROGRAMS

Dual/Concurrent Degree Programs. The College of Business and the American Graduate School of International Management (Thunderbird) have developed a dual degree and cross-registration graduate program for students interested in both business administration and international management. Thunderbird is an internationally recognized private graduate school, located in the Phoenix metropolitan area, offering course work in international studies, modern languages and world business. The dual degree program is designed to allow a limited number of qualified graduate students to pursue a Master of Business Administration
(M.B.A.) degree at ASU and a Master of International Management (M.I.M.) degree at Thunderbird. Consequently, students in the dual degree program may earn their degrees earlier than those who pursue the degrees separately. Applicants must be regularly admitted to both the M.B.A. and M.I.M. programs and must petition for acceptance into the dual degree program through the school of initial attendance. Dual degree program participants and regularly admitted full-time students in the M.B.A. program may petition to take selected course work at Thunderbird at no additional tuition fees after completion of one year and prerequisites for Thunderbird are complete.

The College of Business and the Groupe Ecole Supérieure de Commerce Toulouse have developed a dual degree program for students interested in business administration and international management. Call 602/965-3332 for more information.

The college also offers the following concurrent degrees: Master of Business Administration/Master of Architecture, Master of Science in Economics/Juris Doctor, Master of Business Administration/Juris Doctor, Master of Business Administration/Master of Health Services Administration, Master of Health Services Administration/Juris Doctor, and Master of Health Services Administration/Master of Science in Nursing.

Separate applications are required for each degree and each application is reviewed independently. It is recommended that the student apply simultaneously to both of the dual/concurrent degree programs. The M.B.A./J.D. is best completed by attending one year in the law school, then attend the M.B.A. program after the first or second year, and finally return to the law school to complete the third year. Students will not be admitted from the law school after the third year.

## L. William Seidman Research Insti-

tute. The L. William Seidman Research Institute encourages, promotes, and supports multidisciplinary, crossdisciplinary, and applied research on a wide range of business topics. The institute serves as the "port-of-entry" for applied business research in the College of Business as well as an incubator to transfer knowledge to the business community. The institute also acts as a facilitator for postdoctoral, continuing, and executive business education that is taught by ASU faculty and contributes funding for operations.
Arizona Real Estate Center. The Arizona Real Estate Center collects and analyzes data concerning the multifaceted real estate market to provide insight into solutions for problems confronting the real estate industry.

Bank One Economic Outlook Center. The Bank One Economic Outlook Center serves as the economic forecasting
unit of the college and is responsible for the publication of the Arizona Blue Chip, Western Blue Chip, and Blue Chip Job Growth Update. The center sponsors seminars and workshops on the national and regional economies.

## Center for Advanced Purchasing

Studies. The Center for Advanced Purchasing Studies is a national affiliation agreement between the College of Business at ASU and the National Association of Purchasing Management. The center conducts in-depth research into the problems facing the purchasing profession today and the requirements of the future.

## Center for the Advancement of Small

Business. Endowed with private funding, the center's mission is to enhance the formation and management of small- and medium-size companies to enable them to compete in the global economy of the 21st century. The primary goal is to ensure that ASU students from all disciplines are provided with programs that prepare them for positions of leadership in small- and medium-size businesses.

Center for Business Research. The Center for Business Research collects, analyzes, and disseminates information on the economy and business climate of Arizona. Analyses of Gross State Product, prices, income, employment, and demographic data for Arizona are made available to business and the general public. The center coordinates interdisciplinary sponsored-research efforts to provide useful information to business and a learning experience for students and faculty researchers.

## Center for Financial System Re-

 search. The Center for Financial System Research serves the national financial, policymaking, and academic communities through research, publications, conferences, and educational programs. The focus of these activities is on the changing nature of the domestic and international financial system with such specific areas as the interaction between financial markets, deposit insurance reform, the deregulation of financial institutions, the financing of mergers acquisitions, securitization, and the effect of government policy on financial markets receiving recent attention.Center for Services Marketing and Management. The Center for Services Marketing and Management is North America's leading university-based center for the study of services marketing and management. The center conducts extensive research in the field, offers specialized education and training to services executives, and provides the latest services information to organizations engaged in banking, insurance, health care, tourism, transportation, and other service industries. Its charter members include some of America's foremost services firms and nonservices firms that are using service and quality as a competitive edge.

## Joan and David Lincoln Center for

Ethics. The Joan and David Lincoln Center for Ethics conducts research and offers educational programs on ethical issues in business, government, and the professions.
Manufacturing Institute. The Manufacturing Institute is a joint venture of the College of Business and the College of Engineering and Applied Sciences, established to enhance manufacturing research and industrial collaboration at the interface between the two colleges. The mission of the institute involves integrating aspects of manufacturing in both the business and engineering areas, helping to fulfill ASU's goal of becoming one of the leading educational and research institutions in both manufacturing enterprise and manufacturing process technology issues.

## Industry-University Cooperative Center for Health Management Re-

 search. This cooperative research program, sponsored by the National Science Foundation, the Network for Healthcare Management, the School of Health Administration and Policy, and a group of corporate members representing the health care industry, pools the resources of 14 universities across the United States and Canada. The center pursues research on behalf of its corporate (industrial) members, and disseminates information about research and successful innovations and management practices from other industries, countries, and health care organizations.Dean's Council of 100. The Dean's Council of 100, a prestigious group of area business leaders, represents the
college's innovative partnership between business and education. A major goal of the council is development of private support for the priority needs of the College of Business. Membership is by invitation only.
Economic Club of Phoenix. The Economic Club of Phoenix is composed of business, labor, government, and academic leaders who recognize that, as frontrunners in one of the nation's fast-est-growing metropolitan areas, they need information and access to expertise to deal effectively with rapid economic changes. Its programs bring current and future leaders together and provide them with the opportunity to meet and hear influential speakers.
Council of Emeritus Advisers. The Council of Emeritus Advisers founded by the College of Business and Dean's Council of 100 , is a select group of retired executives who advise the dean and invite nationally known experts to Arizona as visiting scholars, lecturers, and speakers.
Dean's Board of Excellence. The Dean's Board of Excellence is composed of young business and community leaders committed to promoting excellence by awarding outstanding student and faculty performance. The Dean's Board of Excellence also enhances relations between the college and the business community through a discussion forum and communications with the dean.
M.B.A. Council. The M.B.A. Council plays an active role in linking students with business leaders and the corporate community to enhance the M.B.A. student experience. The M.B.A. Council also assists to unite alumni and promote the national reputation of the M.B.A. program.

Washington Campus. The one-month Washington Campus program at Georgetown University provides graduate business students with an in-depth understanding of the federal government and its relationship to the business community. ASU is one of 17 select universities that offer this unique opportunity each summer. Participants earn graduate credit, observe the intricacies of national politics, and enjoy the excitement of the nation's capital.

Competitive scholarships are available to business graduate students to cover the costs of lodging, meals, and instructional expenses.

## COLLEGE FACILITIES

The College of Business offers one of the most modern and sophisticated environments available for professional graduate study. The college facilities provide attractive and comfortable classrooms, computer systems, study areas, a television studio, modern auditoriums, and a graduate student reading room and lounge. Both mainframe interactive and networked microcomputer facilities are available free of charge to graduate students throughout the two business buildings. Also refer to the description of computing facilities and services on pages 31-32.

## Black Student M.B.A. Association

The Black M.B.A. Association is an organization of ASU M.B.A. students dedicated to enhancing the educational experience of its members, promoting attributes of the M.B.A. program to the local business community, promoting awareness within the African American community of business, education, and economic development, and assisting the development of career opportunities for its members.

## Collegiate Volunteer Council

The Collegiate Volunteer Council (CVC) was created to foster volunteerism incorporating the assistance of students, faculty, and staff. Its goal is to provide value-added contributions to the community by assisting those in

need. Traditional projects have included volunteering at the Special Olympics, the Papago Park Clean-up, the Jingle Bell Run for Arthritis, and holiday food and toy drives.

## Graduate Women in Business

The purpose of the Graduate Women in Business (GWB) is to promote the professional and personal development of women graduate students. As part of the National Network of Graduate Business School Women, GWB provides a link among women graduates in accredited business programs nationwide. The ASU chapter is open to men as well as women and offers activities and seminars in professional development and gender issues.

## Hispanic M.B.A. Student Association

The Hispanic M.B.A. Student Association (HMBASA) was created to meet the needs of Hispanic M.B.A. students. Members participate in a wide range of community services, coordinate a variety of professional development programs, and are offered the opportunity to become members of HMBASA's professional affiliated organization, the National Society of Hispanic MBAs. All M.B.A. students are encouraged to join and participate in HMBASA activities.

## International Business Association-M.B.A.

The primary mission of the International Business Association (IBA) is to assist M.B.A. students acquire the substantive knowledge, job-search skills, and personal contacts necessary to enter the prosper in international business. IBA conducts seminars and panel discussions on important international business topics. These events-which generally are open to students, faculty, and others-address topics such as global or regional economic issues, cultural conflicts in cross-border activities, and job hunting strategies.

## Masters Consulting Group

The Masters Consulting Group (MCG) is a fully incorporated, nonprofit organization run solely by M.B.A. students. MCG provides opportunities for M.B.A. students to work as professional consultants in different functional specialties. Thus, students can complement their course work with real world experience.

## M.B.A. Asia Student Association

The MBAsia is a professional and social organization focused on promoting Pacific Rim opportunities for graduate business students. It strives to offer an exchange of learning through seminars, panel discussions, and conferences open to the whole community. MBAsia is also a forum for global, cultural, social interaction at events such as the monthly Asian Lunches and the semiannual Asian Dinner. Membership is open to any graduate business students with an interest in the Pacific Rim.

## M.B.A. Association

The M.B.A. Association at ASU is an independent, professional organization whose purpose is to provide a fully recognized, formally structured representative body through which M.B.A. students may act or communicate in concert on items of interest. The M.B.A. Association sponsors an intensive agenda of experiences outside the classroom which include leadership development activities, executive presentations, career enhancement seminars, and social events.

## M.B.A. Student Ambassadors

The ASU M.B.A. Student Ambassadors are dedicated to promoting, developing, and participating in the community relations and recruitment activities of the M.B.A. Program. The ambassadors interact with many different groups including students, alumni, faculty, and administrative staff.

## ADVISING

Information sessions are held daily (Monday, Wednesday, and Friday at 10:00 A.m. and Tuesday and Thursday at 2:00 P.m.) in the M.B.A. Program Office, BA 140. M.B.A. brochures may be obtained at the office, by e-mail at asu.edu.mba@asu.edu, or by calling 602/965-3332.

## ACCREDITATION

The College of Business and its School of Accountancy and Information Management are accredited by the American Assembly of Collegiate Schools of Business (AACSB). The AACSB is the recognized accrediting agency in the field of business education. The School of Health Administration and Policy is accredited by the Accrediting Commission on Education for Health Services Administration.

## College of Education

David C. Berliner, Ph.D.<br>Dean and Regents' Professor

## PURPOSE

The College of Education is committed to the development of innovative programs that prepare graduate students for leadership roles in solving educational problems. The college provides a stimulating, challenging forum in which research and practice are viewed as essential and complementary. Faculty members are dedicated to producing quality scholarship and research that lead to excellence in teaching, professional practice, and administration of educational institutions.

## ORGANIZATION

The College of Education is organized into three divisions.

## Division of Curriculum and Instruction

Nicholas R. Appleton, Director (ED 409) 602/965-1644

Program Areas
Early Childhood Education
Educational Media and Computers
Elementary Education
Multicultural Education
Reading and Library Science
Secondary Education
Special Education
Degrees: M.A., M.Ed., Ed.D., Ph.D.
Graduate programs offered by faculty of the Division of Curriculum and Instruction, through the Graduate College, prepare students for positions in schools, colleges, universities, government agencies, and public or private organizations. Graduates work as educational leaders, researchers, media and computer specialists, and librarians. This division offers programs that prepare students for Arizona State teacher certification in the following areas: special, elementary, or secondary education. It is designed for students who have graduated from accredited colleges or universities with majors other than education. If desired, a master's degree may be pursued concurrently with teacher certification.

The M.A., M.Ed., and Ed.D. degrees in Curriculum and Instruction offer areas of concentration in bilingual education, communication arts, early childhood education, elementary education, English as a second language, Indian education, mathematics education, multicultural education, reading education,
science education, secondary education, and social studies education. The Ed.D. also offers a concentration in curriculum studies.

The division is committed to research. Members of the faculty edit several national, scholarly journals, publish and present research papers, and direct funded research. Faculty members encourage and assist graduate students in conducting research, writing for publication, and making presentations at professional conferences. Particular research interests of the faculty are noted under each degree major.

## Division of Educational

 Leadership and Policy StudiesThomas H. Metos, Director
(ED 108) 602/965-6248
E-mail: delps@asu.edu
Program Areas
Education Policy Studies
Educational Administration and Supervision
Higher Education
Degrees: M.A., M.Ed., Ed.D., Ph.D.
Graduate programs in this division are designed to develop leaders, researchers, and policy analysts for careers in schools, colleges, and private and government agencies. Graduates will be able to examine educational institutions, theories, and practices within broad economic, historic, political, social, and intellectual contexts in this country and abroad.
Two basic emphases exist within the division's programs. One strand focuses on the administration and policies of educational practices from preschool through secondary education. The other strand focuses on the administration and policies of postsecondary education. Specific details of these strands are given under the headings of the degree offerings in Educational Administration and Supervision, Educational Leadership and Policy Studies, Higher and Postsecondary Education, and Social and Philosophical Foundations.
Faculty within the division are involved in both data-based and theoretical research. Qualitative and quantitative paradigms are employed. Students have the opportunity to work on research projects in the College of Education and in school districts and educational agencies throughout the country.

## Division of Psychology in Education

Raymond Kulhavy, Interim Director (EDB 301) 602/965-3384
E-mail: dpe@asu.edu

## Program Areas

Counseling Psychology
Counselor Education
Learning and Instructional Technology
Lifespan Developmental Psychology
Measurement, Statistics, and
Methodological Studies
School Psychology
Degrees: M.A., M.Ed., M.C., Ph.D.
All program areas within this division strongly emphasize research activities. Areas of concentration within Educational Psychology include lifespan developmental psychology; measurement, statistics, and methodological studies; and school psychology. The Ph.D. program in Counseling Psychology and Educational Psychology concentration in school psychology are accredited by the American Psychological Association and are based upon the scientist-practitioner model. The Master of Counseling program in community counseling is accredited by the Council for the Accreditation of Counseling and Related Educational programs (CACREP).

Members of the faculty are actively involved in a variety of research and other scholarly activities, including basic and applied educational research, editing and reviewing for a number of refereed journals, publishing and presenting research papers, and seeking external funding for research projects. The faculty encourage and assist graduate students' research, publications, and presentations at professional conferences. Particular research interests of the faculty are noted under each degree major.

## GRADUATE PROGRAMS

The College of Education offers degrees for the practitioner and for the academic researcher. The Master of Education and the Doctor of Education are designed for teachers and other practitioners working directly with students and schools. The Master of Counseling is designed to prepare help-
ing professionals for work in a variety of counseling settings. The M.A. and Ph.D. degrees are designed for persons interested in careers in universities and other research settings. The M.A. and Ph.D. programs emphasize theory development, research methods, and acquisition of a broad base of knowledge about education, as well as in-depth knowledge of a chosen field of specialization.

The Interdisciplinary Committee on Curriculum and Instruction offers an interdisciplinary graduate program leading to the Ph.D. degree in Curriculum and Instruction. Areas of concentration are as follows: curriculum studies, early childhood education, educational media and computers, elementary education, English education, exercise and wellness education, music education, physical education, reading education, science education, and special education. The interdisciplinary committee sets guidelines and supervises programs of study, while an executive committee, appointed by the Dean of the College of Education and the dean of the Graduate College, has primary responsibility for the operation of the program. It is composed of faculty representing the various concentrations.

Most graduate programs of the College of Education include a core of courses designed to give students an understanding of the context of American education and of the methods of scholarship by which the understanding of the educational system is deepened.

Core course requirements along with specific requirements for the various types of degrees are given under the appropriate majors. The table presents a summary of those degrees authorized by the Arizona Board of Regents. Contact the division offices for further information about degrees offered through each faculty group. Several of the degrees have various concentrations.

## ADMISSION REQUIREMENTS

Applicants must meet the general admission requirements established by the Graduate College. For the M.Ed. and M.C. degrees, test scores from the Miller Analogies Test or the Graduate Record Examination are required.

Individual divisions or programs may have admission standards higher than these minimums. Also, some units are limited by the number of faculty members or resources they have, and in keeping with the college's goals of providing a high quality education for all enrolled students, only a small proportion of the qualified students who apply are admitted. Students should consult the division director or program coordinator for specific admission requirements.

## SPECIAL PROGRAMS

Research and services to students and the community are provided through two centers authorized by the Arizona Board of Regents: the Center for Bilingual Education and Research and the Center for Indian Education. The College of Education offers graduate course work pertaining to the development and education of children and youth from diverse cultural, linguistic, and racial/ethnic populations. Faculty affiliated with multicultural education are actively involved in research related to effective schooling for children of Hispanic American and American Indian heritage, parents as partners in education, bilingual education, and English as a second language.

The college's Technology Based Learning and Research Facility conducts research activity related to software evaluation and the use of microcomputers in schools.

## CERTIFICATION AND ENDORSEMENT

Postbaccalaureate programs that lead to initial teaching certification are designed for people who hold bachelor's degrees in areas other than education. Postbaccalaureate programs are available in one of the following areas: elementary education, principalship, secondary education, special education, superintendent, and supervisor. Programs to earn endorsements, which are added to teaching certificates, include bilingual education, educating the gifted, library science, middle school education, reading, and teaching English as a second language. Programs that prepare students for certification by the State as a school counselor are offered by the Counselor Education Program.

College of Education Graduate Degrees, Majors, and Concentrations

| Major | Degree | Administered by |
| :---: | :---: | :---: |
| Counseling | M.C. | Division of Psychology in Education |
| Counseling Psychology | Ph.D. | Division of Psychology in Education |
| Counselor Education <br> Concentration: counseling and student personnel | M.Ed. | Division of Psychology in Education |
| Curriculum and Instruction <br> Concentrations: bilingual education, communication arts, early childhood education, elementary education, English as a second language, Indian education, mathematics education, multicultural education, ${ }^{1}$ reading education, science education, secondary education, social studies education | M.A., M.Ed. | Division of Curriculum and Instruction |
| Curriculum and Instruction <br> Concentrations: bilingual education, communication arts, curriculum studies, early childhood education, elementary education, English as a second language, Indian education, mathematics education, multicultural education, ${ }^{1}$ reading education, science education, secondary education, social studies education | Ed.D. | Division of Curriculum and Instruction |
| Curriculum and Instruction <br> Concentrations: curriculum studies, early childhood education, educational media and computers, elementary education, English education, exercise and wellness education, music education, physical education, reading education, science education, special education | Ph.D. ${ }^{2}$ | Interdisciplinary Committee on Curriculum and Instruction |
| Educational Administration and Supervision | M.Ed., Ed.D. | Division of Educational Leadership and Policy Studies |
| Educational Leadership and Policy Studies | Ph.D. | Division of Educational Leadership and Policy Studies |
| Educational Media and Computers ${ }^{3}$ Concentration: business education | M.Ed. | Division of Curriculum and Instruction |
| Educational Psychology | M.A., M.Ed. | Division of Psychology in Education |
| Educational Psychology Concentrations: lifespan developmental psychology; measurement, statistics, and methodological studies; school psychology | Ph.D. | Division of Psychology in Education |
| Higher and Postsecondary Education Concentration: higher education | M.Ed., Ed.D. | Division of Educational Leadership and Policy Studies |
| Learning and Instructional Technology | M.A., M.Ed. | Division of Psychology in Education |
| Learning and Instructional Technology Concentrations: instructional technology, learning | Ph.D. | Division of Psychology in Education |
| Social and Philosophical Foundations of Education | M.A. | Division of Educational Leadership and Policy Studies |
| Special Education | M.A. | Division of Curriculum and Instruction |
| Special Education <br> Concentrations: gifted, mildly handicapped, multicultural exceptional, severely/ multiply handicapped | M.Ed. | Division of Curriculum and Instruction |

[^0]
## COLLEGE FACILITIES

In addition to the special programs mentioned earlier, other administrative units and centers provide services to students and the community. These include the College of Education Preschool, which provides young children a variety of learning experiences designed to encourage the development of thinking skills, intellectual curiosity, creative expression, and the foundation upon which academic skills will later be built. The preschool provides onsite observation opportunities for students preparing to become early childhood teachers, serves as a model preschool program for early childhood educators, and provides an opportunity for researchers to investigate how very young children grow and develop in an environment that encourages their personal and intellectual development.
The Arizona Educational Information System (AEIS) offers member school districts a computerized information retrieval system with access to thousands of educational topics.

The Center for Academic Precocity provides academic services to intellectually advanced students in grades $\mathrm{K}-11$. These services include individual assessment, talent identification, and a variety of courses.

The Counselor Training Center provides counseling for ASU students, faculty, staff, and the community-at-large in personal and career development, stress management, and marriage and family issues. Counseling is conducted by graduate students in Counseling and Counseling Psychology under the supervision of certified psychologists.

Other units within the college offering specialized research and educational services include the Office of Field Services; the Office of Diversity, Recruitment and Support Programs; and instructional resource libraries and collections in a number of curricular areas.

## ADVISING

General career advisement in a program area can be obtained by contacting the director of the division or the
coordinator of the program area in which a degree program is offered. After admission to a degree program, specific advice related to degree activities is provided by supervisory committees.

## ACCREDITATION AND AFFILIATION

The Ph.D. programs in Counseling Psychology and Educational Psychology concentration in school psychology are accredited by the American Psychological Association. The school psychology program is also approved by the National Association of School Psychologists. The Master of Counseling is accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP). The College of Education is approved by the State Board of Education (Arizona). The college is affiliated with the University Council for Educational Administration, The Holmes Partnership, and is a member of AACTE.


## College of Engineering and Applied Sciences

Peter E. Crouch, Ph.D. Dean

## PURPOSE

Faculty in the College of Engineering and Applied Sciences offer opportunities for graduate study through the Del E. Webb School of Construction and the School of Engineering. Degrees offered include the Master of Science in Engineering, the M.S. in the fields of engineering and computer science, the Master of Computer Science, the M.S. degree in Construction, and the $\mathrm{Ph} . \mathrm{D}$. in the fields of engineering and computer science.

The primary purpose of a graduate education is to provide the student with advanced training for a professional, teaching, or research career. The graduate program in the School of Engineering is designed to bridge the gap between knowledge of engineering sciences and creative engineering practice, while at the same time increasing the student's depth and breadth of knowledge in an area of emphasis. The performance of scholarly research and the acceptance of professional responsibility for the documented results are considered essential requirements for graduate degrees and entrance into professional careers.

Information about the College of Engineering and Applied Sciences can be accessed via the World Wide Web at www.eas.asu.edu. The individual department and research program Web pages may also be accessed through this main address.

## ORGANIZATION

The College of Engineering and Applied Sciences is organized as follows:

## Del E. Webb School of Construction

School of Engineering
Department of Chemical, Bio, and
Materials Engineering
Department of Civil and
Environmental Engineering
Department of Computer Science and Engineering
Department of Electrical Engineering
Department of Industrial and Management Systems Engineering
Department of Mechanical and Aerospace Engineering

Each academic unit, headed by a chair or director, offers various undergraduate and graduate degree programs. Faculty from these academic units participate in the research pro-
grams offered through the college research centers as well as individual laboratories and facilities. Drawing on the interests, strengths, and resources of academic units in the College of Engineering and Applied Sciences and other schools and colleges within the university, interdisciplinary research centers coordinate research, sponsor conferences and continuing education courses, and serve as liaison between the academic and industrial or technical communities.

## ADMISSION REQUIREMENTS

Applicants must meet the general admission requirements established by the Graduate College. Additional supporting materials may be required by individual academic units. These materials may include test scores from the Graduate Record Examination, letters of recommendation, and statements of educational and professional goals. International applicants whose native language is not English must also submit Test of English as a Foreign Language (TOEFL) scores. See the requirements listed under each major in this catalog for specific TOEFL information.

General information on admission, expenses, and other such topics may be obtained from the Office of the Associate Dean for Academic Affairs. Specific questions on a program should be addressed to the academic unit.

## GRADUATE PROGRAMS

Through the Graduate College, faculty in the College of Engineering and Applied Sciences offer various graduate programs leading to the M.S., Master of Science in Engineering, Master of Computer Science, and Ph.D.

The college is committed to becoming a nationally prominent center for graduate research. Faculty members conduct research on government or in-dustry-sponsored programs in such areas as aerodynamics, biotechnology, computer design, computer-integrated manufacturing, environmental fluid dynamics, innovative engineering education, microelectronics manufacturing, power systems, semiconductor materials and devices, signal processing, solar energy, solid-state electronic devices, structural dynamics, telecommunications, thermosciences, and transportation systems. The research activities of the academic units within the college

## College of Engineering and Applied Sciences

 Graduate Degrees, Majors, and Concentrations| Major | Degree | Administered by |
| :---: | :---: | :---: |
| Del E. Webb School of Construction |  |  |
| Construction Concentrations: construction science, facilities, management | M.S. | Del E. Webb School of Construction |
| School of Engineering |  |  |
| Aerospace Engineering | $\begin{aligned} & \text { M.S., M.S.E., } \\ & \text { Ph.D. } \end{aligned}$ | Department of Mechanical and Aerospace Engineering |
| Bioengineering | M.S., Ph.D. | Department of Chemical, Bio, and Materials Engineering |
| Chemical Engineering <br> Concentrations: biomedical and clinical engineering, chemical process engineering, chemical reactor engineering, energy and materials conversion, environmental control, solid-state processing, transport phenomena | $\begin{aligned} & \text { M.S., M.S.E., } \\ & \text { Ph.D. } \end{aligned}$ | Department of Chemical, Bio, and Materials Engineering |
| Civil Engineering | $\begin{aligned} & \text { M.S., M.S.E., } \\ & \text { Ph.D. } \end{aligned}$ | Department of Civil and Environmental Engineering |
| Computer Science | $\begin{aligned} & \text { M.C.S., M.S., } \\ & \text { Ph.D. } \end{aligned}$ | Department of Computer Science and Engineering |
| Electrical Engineering | $\begin{aligned} & \text { M.S., M.S.E., } \\ & \text { Ph.D. } \end{aligned}$ | Department of Electrical Engineering |
| Engineering Science | $\begin{aligned} & \text { M.S., M.S.E., } \\ & \text { Ph.D. } \end{aligned}$ | School of Engineering |
| Industrial Engineering | $\begin{aligned} & \text { M.S., M.S.E., } \\ & \text { Ph.D. } \end{aligned}$ | Department of Industrial and Management Systems Engineering |
| Mechanical Engineering | $\begin{aligned} & \text { M.S., M.S.E., } \\ & \text { Ph.D. } \end{aligned}$ | Department of Mechanical and Aerospace Engineering |
| Science and Engineering of Materials Concentrations: high-resolution nanostructure analysis, solid-state device materials design | Ph.D.* | Committee on the Science and Engineering of Materials |

* This program is administered by the Graduate College. See "Graduate College," pages 54-55.
are complemented and supported by the work of centers for research and development.

The Center for Low Power Electronics has the following areas of technical focus:

1. basic materials, alternative materials and their fabrication;
2. device design optimization;
3. design of digital, analog and hybrid low power circuits; and
4. power-based physical design for single and multichip VLSI systems.
Faculty and graduate students in the college participate in programs of the Center for Solid-State Electronics Research, coordinating the work of researchers from various units. The center emphasizes the development of solid-state electronics research and teaching and facilitates interaction with the electronics industry. The center op-
erates modern, sophisticated research facilities, organizes colloquia and symposia, collaborates with external researchers, and sponsors visiting professorships.

The Center for Professional Development coordinates continuing education services for the local, national, and international technical community, sponsoring conferences, seminars, institutes, and short courses for professionals in the rapidly changing fields of science and technology.

The College of Engineering and Applied Sciences serves the high technology community through the Interactive Instructional Television Program. The system allows employees of participating companies to attend graduate-level courses, special interest seminars, and video teleconferences without leaving their place of employment. The college also provides instruction via satellite in
cooperation with the National Technological University.

The college's Telecommunications Research Center focuses, plans, and promotes the research activities of the faculty with interests in antennas, propagation, and scattering; microwave circuits, devices, and measurements; optical communications; signal processing; and switching and data communications. The center conducts research, develops technologies, and provides educational programs. Industrial and multidisciplinary programs are encouraged. The center operates modern research laboratories, including an excellent, spacious electromagnetic anechoic chamber.

The Manufacturing Institute was established to broaden the scope of manufacturing research in the university to include research at the interface between the College of Business and the

College of Engineering and Applied Sciences as well as research in manufacturing processes. The institute has codirectors from both colleges and also enjoys active industry involvement.
The Center for Systems Science and Engineering is jointly sponsored by the College of Engineering and Applied Sciences and the College of Liberal Arts and Sciences. Its main goals are the creation and enhancement of interdisciplinary and cooperative research, graduate education, and public service programs in the areas of systems science, applied mathematics, and computation. The center's focal areas include nonlinear and adaptive systems, large scale systems, and scientific computing and simulation.

The purpose of the Center for Innovation in Engineering Education is to promote and encourage visionary approaches to educating engineering students by supporting the research, development, and assessment of new educational paradigms, unique curricula, improved courses, and new delivery systems that embrace a range of learning models, alternative classroom management strategies, improved pedagogies, and advanced educational technologies. The center also develops and offers workshops and seminars to encourage wide-scale implementation of those approaches that are shown to be effective in developing the attributes that will be needed by engineering graduates in the decade ahead.

The College of Engineering and Applied Sciences and the industrial and business communities of Arizona interact regularly through the Dean's Engineering Advisory Council. The council's primary purpose is to assist the college in its threefold mission:

1. to provide undergraduate and graduate students with a variety of high-quality educational opportunities that will serve their professional interests into the 21st century,
2. to enhance the economic well-being of Arizona and the nation, and
3. to meet the rapidly expanding need for research and educational support of the high-technology industry of Arizona.

The Engineering Excellence 2000 program sponsored by the college and the Arizona industrial and business communities has been instrumental in
dramatically increasing state, federal, and private funding of undergraduate and graduate instruction and the college's research programs. Currently, the School of Engineering, which houses the college's six engineering departments, is emphasizing research in the areas of semiconductor electronics, manufacturing, communications and information systems, environmental engineering, biotechnology, and software engineering. The college's Del E. Webb School of Construction enjoys great community support for its active graduate program in construction sciences and facilities management.

## COLLEGE FACILITIES

Numerous well-equipped laboratories, extensive library holdings, and widely available computer services encourage the best in research and graduate training. Laboratories include facilities for energy conversion and materials engineering, instrumentation and biomechanics research, transmission microscopy, and surface research, to name only a few of the diverse capabilities of the college's physical resources. Supporting the work of researchers, a well-equipped and wellstaffed machine and structures fabrication shop makes special-purpose equipment for student and faculty projects. For more information about laboratories, consult the descriptions of individual programs and centers for research in this catalog.

The College of Engineering and Applied Sciences offers extensive computing facilities to its faculty and graduate students. The college centrally maintains computing resources for general engineering use, including a large Sun SPARCenter 2000 superserver and Hewlett Packard 9000 superserver. Also available are specialty computers for World Wide Web services, electronic mail, Internet collaboration, and special applications. Distributed throughout the college are several thousands of networked UNIX workstations, PCs, and Macintoshes accessing UNIX, Novell, or NT servers available for research or instruction. UNIX workstations are provided by manufacturers such as Sun Microsystems, Hewlett Packard, Silicon Graphics, and Digital Equipment Corporation. All college computing resources are inter-
connected via the Internet standard TCP/IP on 10 Mb ethernet. Many areas have been upgraded to the faster 100 Mb ethernet and plans are in progress to upgrade to the faster ATM networks.

## ACADEMIC STANDARDS

Retention. A student who has been admitted to a graduate program of study in the College of Engineering and Applied Sciences, on either a regular or provisional basis, must maintain a 3.00 or higher GPA in all work taken for graduate credit as well as an overall 3.00 GPA in all studies at ASU.

A student is placed on academic probation if

1. the student's GPA falls below 3.00 in the approved program of study;
2. the student's overall GPA for all postbaccalaureate courses taken at ASU falls below 3.00;
3. the student receives a "D" or " $E$ " in a required deficiency or in a course at the 400 level or above; or
4. for reasons other than above, the student fails to make satisfactory progress toward a degree.

A student is recommended for withdrawal from a graduate program if

1. the student is on academic probation because his or her GPA has fallen below 3.00 in the approved program of study or for all postbaccalaureate courses taken at ASU and fails to bring the GPA to 3.00 or above by the time the next nine semester hours are completed;
2. the student receives a "D" or lower grade while on academic probation for any reason;
3. the student fails to obtain at least a 3.00 GPA in all courses cited as deficiencies upon admission to a graduate program;
4. the student fails to meet any other conditions imposed as part of the probation; or
5. for reasons other than above, the student fails to make satisfactory progress toward a degree.
A student may appeal any action concerning academic probation and withdrawal by petitioning the graduate affairs committee within the student's academic unit.

## College of Fine Arts

J. Robert Wills, Ph.D.<br>Dean

## PURPOSE

The College of Fine Arts offers preprofessional and professional education in the arts disciplines and opportunities for nonmajors to become culturally literate through participation and involvement in the creative and performing arts.

At the graduate level, the college provides students the opportunity to participate with faculty mentors in research, performance and performance practices, and other creative activities.

As the largest and most diverse fine arts academic unit in the Southwest, and one of the largest in North America, the College of Fine Arts has an implicit responsibility to maintain quality and leadership in all aspects of its activities. Through its programs in art, dance, music, and theatre, the college reflects a wide range of challenges facing the artist and scholar into the 21 st century.

## ORGANIZATION

The College of Fine Arts houses the School of Art, the Department of Dance, the School of Music, the Department of Theatre, the University Art Museum, and the Institute for Studies in the Arts. An average of 2,000 students per semester enroll as majors in various degree programs offered through these units. Approximately one third of these are graduate students.

## GRADUATE PROGRAMS

Faculty in the School of Art, Department of Dance, School of Music, and Department of Theatre offer both research and professional degrees through the Graduate College: the M.A., Master of Fine Arts, Master of Music, Doctor of Musical Arts, and Ph.D. degrees. A full range of majors and concentrations is available.

## ADMISSION REQUIREMENTS

Admission requirements vary according to degree programs. However, applicants must first meet all admission requirements of the Graduate College. Most programs require a bachelor's degree with a major in the selected area; many of them also require an audition. See the specific degree program for pertinent admission requirements.

## SPECIAL PROGRAMS

Together with faculty, visiting scholars, and artists-in-residence, graduate students in all fields of the College of Fine Arts participate in dynamic, innovative programs. The creative energy that infuses the visual and performing arts finds expression in research and study.

The Visual Arts Research Studios in the School of Art conduct research in historical and contemporary technologies in the visual arts. This program provides the only studio environment of its kind in this country. It brings together artists, master printers, and photographers to encourage collaboration and research. Graduate students are appointed to assist studio personnel in the planning and production of projects in the Print Research Facility, the Photography Collaborative facility, and the Pyracantha Press.

The School of Art also offers opportunities to explore and refine a new artistic medium: computer graphics. Students may work with software for "painting," solid modeling, animated solid modeling, and live video mapping. While computer graphics makes use of the latest technology, other areas preserve and revitalize established media. The neon studio contributes to the revival of interest in neon as an artistic medium and trains students in this difficult craft. The Northlight Gallery has also become known internationally for photographic exhibitions. Graduate students gain valuable experience in the gallery.

Recognized as one of the top programs in the country, the Department of Dance emphasizes the choreography, performance, and theory of modern dance. Nationally prominent faculty and visiting artists create repertory for dance majors and for the Dance Arizona Repertory Theatre (DART), a student touring outreach company. An ambitious performance program offers to the public several concerts each year with additional works created and performed by graduate and undergraduate students. Students work closely with major artists and companies who visit campus annually, and with researchers in the areas of dance science, dance in relation to technology, dance music composition, labanotation, and sound and video production. ASU students and faculty have consistently taken top

## College of Fine Arts Graduate Degrees, Majors, and Concentrations

| Major | Degree | Administered by |
| :---: | :---: | :---: |
| Art Concentrations: art education, art history | M.A. | School of Art |
| Art Concentrations: ceramics, drawing, fibers, intermedia, metals, painting, photographic studies, photography, printmaking, sculpture, wood | M.F.A. | School of Art |
| Composition | M.M. | School of Music |
| Creative Writing | M.F.A.* | Creative Writing Committee |
| Dance | M.F.A. | Department of Dance |
| Music Concentrations: ethnomusicology, music history and literature, music theory | M.A. | School of Music |
| Music <br> Concentrations: choral music, general music, instrumental music, music composition, solo performance (instrumental, keyboard, voice) | D.M.A. | School of Music |
| Music Education Concentrations: choral music, general music, instrumental music | M.M. | School of Music |
| Performance <br> Concentrations: music theatre musical direction, music theatre performance, performance pedagogy, piano accompanying, solo performance (instrumental, keyboard, voice) | M.M. | School of Music |
| Theatre | M.A. | Department of Theatre |
| Theatre Concentrations: acting, scenography, theatre for youth | M.F.A. | Department of Theatre |
| Theatre Concentration: theatre for youth | Ph.D. | Department of Theatre |

* This program is administered by the Graduate College. See "Graduate College," pages 54-55.
honors at the regional and national festivals of the American College Dance Festival Association. The department recently was selected to host the National Festival, which produced seven concerts and over 50 master classes in four days.

As the research center for the College of Fine Arts, the Institute for Studies in the Arts serves as a laboratory for the development and funding of creative ideas and for the exploration of new tools and technologies for artistic expression, a network for communication among creative scholars both within and outside the arts, and a resource base for the documentation, evaluation, and dissemination of research in the arts. Through technical and monetary support, the institute sponsors a wide variety of projects that address its mission of experimentation and innovation.

Faculty in the School of Music include a wide range of performers, teachers, conductors, composers, and scholars, whose knowledge and guidance support the training of students in the Doctor of Musical Arts and master's degree programs. Individuals who hold graduate degrees from ASU's School of Music hold prestigious performing and university teaching positions throughout the nation. The graduate programs are indeed comprehensive and provide for wide and diverse opportunities for students in performance, course work, and research.

Three concentrations are available in the M.F.A. in Theatre program: acting, scenography, and theatre for youth. The concentration in acting is based on a conservatory model, providing performance opportunities in mainstage and studio production. The Ph.D. in Theatre program also offers a concentration in theatre for youth.

The Department of Theatre, with its strong playwriting program, has a special interest in new scripts that bring a wealth of professional productions and workshops to campus for the benefit of all students. In recent years, two plays by Pulitzer prize-winning playwrights have premiered on campus, and The Genesis Project of new play workshops is cosponsored annually with the Arizona Theatre Company, the state League of Resident Theatres (LORT) company. The Department of Theatre takes special pride in its nationally and internationally acclaimed theatre for youth program, which provides comprehensive graduate training and attracts students, scholars, and visitors from around the world. Graduate students are challenged to excel in every aspect of theatrical training. They are offered acting, directing, and other production opportunities for mainstage,

studio, and touring shows, as well as research and teaching opportunities on and off campus. Students also organize and participate in a biennial International Youth Arts Festival that brings many multitalented artists and thousands of students to campus. The program has developed Hayden Library's Child Drama Collection, which includes rare books, plays, and personal and national association archives. It is the most complete and comprehensive collection in the English-speaking world.

Students in the scenography program are actively involved in all aspects of design and technology for mainstage and studio productions and receive regional and national awards on a regular basis for their work. Students may specialize in a single design area or the more comprehensive scenography.
A multiethnic theatre program provides opportunities for students to view and work with professional and semiprofessional multiethnic productions on campus.

The playwriting program enriches graduate study and brings together talented students with those who practice the theatrical arts.
The M.F.A. in Creative Writing encourages graduate students to work closely with writers of drama, fiction, and poetry, and with directors and pro-
ducers from the Departments of English and Theatre. This interdisciplinary program, involving the artistic, research, and teaching interests of faculty in these departments, offers students a unique opportunity to tailor a course of study to fit individual needs, talents, and goals.

## COLLEGE FACILITIES

The arts programs are housed in the following buildings: Art Building; Dixie Gammage Hall; Physical Education Building East; Gammage Center for the Performing Arts; Matthews Center; Matthews Hall; the J. Russell and Bonita Nelson Fine Arts Center, which includes the University Art Museum; the 496 -seat Paul V. Galvin Playhouse; six theatre studios; a 7,000-square-foot Experimental Dance Lab; and a video lab. The Music Building and expansion wing house four performance halls ranging in size from the 125 -seat Recital Hall to the 500 -seat Music Theatre and the 350 -seat Katzin Concert Hall, which is used primarily for solo and chamber music recitals. The Katzin Concert Hall contains a nine-foot Hamburg Concert Steinway piano. The new 175 -seat Organ Hall was designed to house the Paul Fritts Tracker Organ, an instrument reflecting the aesthetics and style of North Germany organ building in the 17 th cen-
tury. The Theatre Department also stages student series in the renovated Lyceum Theatre. Many of these facilities are equipped with studios and laboratories, where needed.
The University Art Museum's collections are housed in a large complex of galleries and art study rooms in two locations: the Nelson Fine Arts Center and the second floor of the Matthews Center. The Oliver B. James Collection of American Art ranges from the early 18th century to the contemporary and includes major works by Stuart, Ryder, Homer, and the Ash Can School painters. Master works by great printmakers such as Durer, Rembrandt, Whistler, and Hogarth are often featured in special exhibitions selected from the university's extensive print collection.

The gallery devoted to Latin American art features folk art as well as paintings by celebrated 20th-century artists Rivera, Siquerios, and Tamayo. The museum also displays many fine examples of 19th- and 20th-century crafts, paintings, and sculpture.

The contemporary art holdings include works by Vernon Fisher, Leon Golub, Sue Coe, Luis Jimenez, and Robert Colescott. Exhibitions curated by the museum emphasize contemporary art and new media, crafts, and Mexican art.
All units have developed computer facilities for graduate student training. Also refer to the description of computing facilities and services on pages 3132.

## ADVISING

Advising is handled as a decentralized activity within the college. To offer personalized attention, each academic unit establishes its own graduate advisement procedures. Students are encouraged to make appointments through the central office of their major discipline.

## ACCREDITATION

While all of the arts programs in the college meet or exceed standards established by various arts accrediting agencies, the School of Music and the Department of Theatre hold formal memberships; the School of Music by the National Association of Schools of Music, and the Department of Theatre by the National Association of Schools of Theatre.

# College of Law 

Alan A. Matheson, J.D. Interim Dean

## PURPOSE

The prime function of the College of Law is to educate students in the law so that they may assume the various societal roles involved with the law. Some of its graduates turn to government legal service, to legal aid and public defender offices, to law enforcement work, to the world of business, to education, and the many other avenues opened by legal training. Some students, while yet in school, develop programs of study involving fields and disciplines outside the law in its conventional sense. Through the university, the College of Law provides many of those wider avenues of study.

The students of the College of Law seek to develop an understanding, in formal courses and in clinical experience, of the very heavy responsibilities borne in society by the legal profession, and to learn of the satisfactions that come from discharging, at a high standard, the duties of counselor and advocate. In addition, the college has a responsibility to contribute to the quality of justice administered in society.

## ORGANIZATION

The law school has a distinguished faculty, a professional course of study constructed for the modern era, and a unique and highly functional law building especially designed for modern legal education. Classrooms are located on the ground floor along with seminar rooms; offices for the Law School Clinics; Student Services offices; a Career Planning Resource Center; informal student lounge areas; a modern trial courtroom equipped with modern sound and video equipment; a classroom equipped with a computer projection unit, broadband capability, VCR, sound system, and infrared system for the hearing impaired; and the Willard H. Pedrick Great Hall, a unique, fullbench setting that seats 400 . Faculty, staff and administrative offices are located at the mezzanine level.

The award-winning John J. RossWilliam C. Blakley Law Library, named in memory of two prominent Phoenix attorneys, is one of the finest law libraries in the Southwest with a collection of more than 310,000 volumes and microform volume equivalents. The collection includes a broad selection of Anglo-American case reports and statutes as well as legal trea-
tises, periodicals, encyclopedias, digests, citators, and administrative materials. The collection also includes growing special collections in the areas of international law, Indian law, Mexican law, and law and technology. In addition, the library has a 30 -station computer lab as well as LEXIS and WESTLAW rooms each containing 10 stations, 27 meeting and study rooms, a microforms facility and a classroom.
The library is also a selective U.S. government depository.

Students have ready access to the other campus libraries, including the Charles Trumbell Hayden Library, the Daniel E. Noble Science and Engineering Library, the Architecture and Environmental Design Library, and the Music Library. The collections of the university's libraries comprise more than 3 million volumes.

## GRADUATE PROGRAMS

## Juris Doctor Degree

The College of Law offers a threeyear program of professional studies at the graduate level leading to the degree of Juris Doctor (J.D.).

## Dual/Concurrent Degree Programs

Juris Doctor/Master of Health Services Administration (with College of Business)
Juris Doctor/Master of Business Administration (with College of Business)
Juris Doctor/Ph.D. in Justice Studies (with the Committee on Law and Social Sciences)

## ADMISSION REQUIREMENTS

Each applicant for admission to the Juris Doctor (J.D.) program must have earned an undergraduate degree from an accredited four-year college or university (B.A., B.S., or other equivalent). The College of Law Admissions Office considers an applicant's file complete only if it includes each of the following:

1. a completed Application for Admission form,
2. a completed Domicile Affidavit if claiming Arizona residency,
3. a $\$ 45.00$ application fee,
4. a personal statement that does not exceed three typed pages in length, and
5. a Law School Data Assembly Service (LSDAS) report with all transcripts and the Law School Admissions Test (LSAT) score(s) from the Law School Admission Services (LSAS).
To be assured consideration, all application materials must be complete by March 1.

## SPECIAL PROGRAMS

## Center for the Study of Law, Science, and Technology

The Center for the Study of Law, Science, and Technology is a multidisciplinary research center created by the Arizona Board of Regents in 1984. The center publishes research studies, sponsors seminars and symposia, and houses visiting scholars and teachers. Through these programs, the center seeks to contribute to the formulation and improvement of law and public policy affecting science and technology and to the wise application of science and technology in the legal system.
The College of Law offers a substantial number of courses in the law, science, and technology area including bioethics law and psychiatry, environ-
mental law, health care law, intellectual property, land use regulation, law and evolutionary biology, law and medicine, law and social science, mass communication, natural resources law, patent law, regulatory problems in law, science and technology, and water law. Each semester, the center publishes a student guide to other less obvious courses that contain science and technology issues. In recent semesters this guide has listed courses in AIDS and the law, commercial law, employment law, law and the handicapped, antitrust, statistical proof in employment discrimination litigation, and several courses offered by other departments on campus available for registration by law students. In addition to regular course offerings, students can arrange independent studies with supervising faculty on topics of special interest to them. The center also invites guest speakers from legal or scientific fields to visit with interested law students, generally during the noon hour.

In cooperation with the American Bar Association Section on Science and Technology and under the leadership of a faculty editor, second- and third-year students edit the Jurimetrics Journal of

Law, Science and Technology. Student editors do both editorial work on submitted articles and original writing for publication in the journal.

## Indian Legal Program

The College of Law offers an Indian Legal Program whose missions are to assist tribal courts and governments in improving justice in Indian country and to develop education and scholarship in Indian law. Students have the opportunity to participate in all phases of the Indian Legal Program and gain indepth understanding of the legal issues affecting Indian tribes and peoples. Courses on Federal Indian law and seminars on advanced Indian law topics such as Tribal Court dispute resolution, economic development, American Indian cultural resources protection, and tribal environmental law are part of the curriculum. Students may also participate in externships with the local tribal courts or spend a semester in Washington, D.C. working with the Senate Select Committee on Indian Affairs. This variety of academic and work experience provides the students an outstanding legal education with a firm grounding in both the theoretical and practical aspects of Indian law.


## Law Journal

The College of Law publishes a professional law review, the Arizona State Law Journal, edited by students of the second- and third-year classes. Membership on the law journal is determined by grade performance in the first year and, for some, by submitting written work in a writing competition. Participation on law review is hard but rewarding work. For those eligible, the review provides one of the finest avenues for legal education thus far developed. Its work contributes to the student's intellectual advancement, to the development of law and the legal profession, and to the stature of the law school.

## ADVISING

Preadmission information, advisement, and continued support for the J.D. is provided by the College of Law Admissions Office, 602/965-1474.

## ACCREDITATION

The college is fully accredited by the American Bar Association and is a member of the Association of American Law Schools.

# College of Liberal Arts and Sciences 

Gary S. Krahenbuhl, Ed.D.

## PURPOSE

The graduate programs in the College of Liberal Arts and Sciences are characterized by both a diversity of disciplines and a commonality of purpose. The disciplinary diversity of the college is broad by intent, embracing those branches of learning most central to the foundations of society in the humani-
ties and the sciences. Unity of purpose is achieved through a common commitment to intellectual integrity, to research, and to the preservation of freedom of academic inquiry, as well as through informal exchanges and crossdisciplinary centers.

The College of Liberal Arts and Sciences has active research programs in all units offering advanced degrees. In recent years, the rapid addition of excellent faculty has enhanced the cadre of senior scholars and scientists with whom graduate students work.

## ORGANIZATION

The College of Liberal Arts and Sciences, which offers graduate study in the humanities, the mathematical and the natural sciences, and the social sciences, brings together highly qualified faculty and advanced students to share learning and discovery in 20 academic units and in a number of interdisciplinary centers. In lectures and seminars, in laboratories and libraries, in creative endeavors, field experiences, and research projects, faculty and students cooperate in preserving, evaluating, and expanding knowledge.

## GRADUATE PROGRAMS

In cooperation with the Graduate College, faculty affiliated with various departments and units within the College of Liberal Arts and Sciences offer three research-oriented degrees: the M.A., the M.S., and the Ph.D. In addition, four professional degrees are offered: the Master of Natural Science, the Master of Teaching English as a Second Language, the Master of Physical Education, and the Master of Fine Arts, an interdisciplinary creative writing program offered in cooperation with the College of Fine Arts. The interdisciplinary master's program in Humanities draws faculty expertise from the Departments of Anthropology, Dance, English, History, Languages and Literatures, Philosophy, Religious Studies, and the School of Art. Inter-
disciplinary programs leading to the Ph.D. degree are offered in Exercise Science, Molecular and Cellular Biology, Science and Engineering of Materials, and Speech and Hearing Science. Many departments within the college participate in the Master of Education, Doctor of Education, and Doctor of Philosophy degrees offered and administered through the College of Education. Members of the Department of Mathematics faculty participate in the interdisciplinary M.S. degree in Statistics (with College of Business faculty); members of the Departments of Biology, Chemistry and Biochemistry, Microbiology, and Plant Biology participate in the interdisciplinary M.S. and Ph.D. in Molecular and Cellular Biology; members of the faculty in the Departments of Anthropology, History, Languages and Literatures, Philosophy, Political Science, Psychology, Religious Studies, and Sociology participate in the interdisciplinary Ph.D. in Justice Studies program; members of the Departments of Geography, Political Science, and Sociology faculty contribute to the interdisciplinary Doctor of Public Administration program; and members of the Departments of English, Family Resources and Human Development, Sociology, and Speech and Hearing Science faculty participate in the interdisciplinary Ph.D. degree in Communication.
One of the unique features of an interdisciplinary program is that it draws upon faculty research and teaching interests from a number of academic units; thus a student may tailor a course of study to fit individual needs and goals.

## ADMISSION REQUIREMENTS

Applicants to graduate programs within the College of Liberal Arts and Sciences must meet general requirements for admission established by the Graduate College (see pages 53-57). In addition, academic units usually require submission of test scores (such as Graduate Record Examination and Miller Analogies Test), letters of recommendation, and a statement of purpose. Consult the individual degree programs for particular requirements. International applicants must also submit Test of English as a Foreign Language (TOEFL) scores and are advised to submit application materials well in advance of deadlines.

College of Liberal Arts and Sciences Graduate Degrees, Majors, and Concentrations

| Major | Degree | Administered by |
| :---: | :---: | :---: |
| Anthropology Concentrations: archaeology, bioarchaeology, linguistics, medical anthropology, museum studies, physical anthropology, social-cultural anthropology | M.A. | Department of Anthropology |
| Anthropology <br> Concentrations: archaeology, physical anthropology, social-cultural anthropology | Ph.D. | Department of Anthropology |
| Biology ${ }^{1}$ Concentration: ecology | M.S., Ph.D. | Department of Biology |
| Chemistry <br> Concentrations: analytical chemistry, biochemistry, geochemistry, inorganic chemistry, organic chemistry, physical chemistry, solid-state chemistry | M.S., Ph.D. | Department of Chemistry and Biochemistry |
| Communication Disorders | M.S. | Department of Speech and Hearing Science |
| Creative Writing | M.F.A. ${ }^{2}$ | Creative Writing Committee |
| English <br> Concentrations: comparative literature, English linguistics, literature and language, rhetoric and composition | M.A. | Department of English |
| English <br> Concentrations: literature, rhetoric/composition and linguistics | Ph.D. | Department of English |
| Exercise Science <br> Concentrations: biomechanics, motor behavior/ sport psychology, physiology of exercise | Ph.D. ${ }^{2}$ | Committee on Exercise Science |
| Exercise Science/Physical Education | M.S. | Department of Exercise Science and Physical Education |
| Family Resources and Human Development Concentrations: family studies, general family resources and human development | M.S. | Department of Family Resources and Human Development |
| Family Science ${ }^{1}$ <br> Concentration: marriage and family therapy | Ph.D. | Department of Family Resources and Human Development |
| French <br> Concentrations: comparative literature, language and culture, literature | M.A. | Department of Languages and Literatures |
| Geography | M.A., Ph.D. | Department of Geography |
| Geology | M.S., Ph.D. | Department of Geology |
| German <br> Concentrations: comparative literature, language and culture, literature | M.A. | Department of Languages and Literatures |
| History <br> Concentrations: Asian history, British history, European history, Latin American history, public history, U.S. history, U.S. Western history | M.A. | Department of History |
| History <br> Concentrations: Asian history, British history, European history, Latin American history, U.S. history | Ph.D. | Department of History |
| Humanities | M.A. | Graduate Committee on Humanities |
| Mathematics | M.A., Ph.D. | Department of Mathematics |
| Microbiology | M.S., Ph.D. | Department of Microbiology |
| Molecular and Cellular Biology | M.S., Ph.D. | Interdisciplinary Committee on Molecular and Cellular Biology |

[^1]
## College of Liberal Arts and Sciences Graduate Degrees, Majors, and Concentrations (continued)

| Major | Degree | Administered by |
| :---: | :---: | :---: |
| Natural Science | M.N.S. |  |
| Concentrations: |  |  |
| Biology |  | Department of Biology |
| Chemistry |  | Department of Chemistry and Biochemistry |
| Geology |  | Department of Geology |
| Mathematics |  | Department of Mathematics |
| Microbiology |  | Department of Microbiology |
| Physics |  | Department of Physics and Astronomy |
| Plant Biology |  | Department of Plant Biology |
| Philosophy | M.A. | Department of Philosophy |
| Physical Education | M.P.E. | Department of Exercise Science and Physical Education |
| Physics | M.S., Ph.D. | Department of Physics and Astronomy |
| Plant Biology ${ }^{1}$ Concentrations: ecology, photosynthesis | M.S., Ph.D. | Department of Plant Biology |
| Political Science Concentrations: American politics, comparative politics, international relations, political theory | M.A., Ph.D. | Department of Political Science |
| Psychology <br> Concentrations: behavioral neuroscience, clinical psychology, cognitive/behavioral systems, developmental psychology, environmental psychology, social psychology | Ph.D. | Department of Psychology |
| Religious Studies | M.A. | Department of Religious Studies |
| Science and Engineering of Materials Concentrations: high-resolution nanostructure analysis, solid-state device materials design | Ph.D. ${ }^{2}$ | Committee on the Science and Engineering of Materials |
| Sociology | M.A., Ph.D. | Department of Sociology |
| Spanish <br> Concentrations: comparative literature, language and culture, linguistics, literature | M.A. | Department of Languages and Literatures |
| Spanish | Ph.D. | Department of Languages and Literatures |
| Speech and Hearing Science <br> Concentrations: developmental neurolinguistic disorders, neuroauditory processes, neurogerontologic communication disorders | Ph.D. ${ }^{2}$ | Committee on Speech and Hearing Science |
| Statistics | M.S. ${ }^{2}$ | Committee on Statistics |
| Teaching English as a Second Language | M.TESL | Department of English |

${ }^{1}$ Major with formalized concentrations; other areas of study are available.
${ }^{2}$ This program is administered by the Graduate College. See "Graduate College," pages 54-55.

## SPECIAL PROGRAMS

The college is characterized by the development of program thrusts in new areas, many of which are interdisciplinary in content. There is special strength, for example, in planetary geology, as well as in more traditional geological subdisciplines; in geochemistry, as well as in biochemistry and solid-state and materials science; and in magnetic properties of materials, as well as nuclear physics and surface physics. In psychology, traditional social, developmental, and clinical
research is augmented by a new interest in preventive mental health. Flexibility and forward-looking program development pervade all college programs. The interdisciplinary degree in Exercise Science is internationally recognized. The graduate Creative Writing program brings talented students together with distinguished poets, playwrights, and novelists. The Teaching English as a Second Language program attracts students from all over the world.

The Southwest environment has favorably affected program development
in several ways, ranging from research activities in water resources, archaeology, and fluvial geomorphology to distinguished programs in Hispanic language, literature, culture, and history.

In addition to traditional and innovative programs within departments, there are multidisciplinary research centers within the college, bringing together faculty from various departments. These include the Centers for Asian Studies, Exercise and Sport Research, Hispanic Research, Latin American Studies, Medieval and Renaissance

Studies, Meteorite Studies, and SolidState Science. Centers sponsor colloquia, workshops, conferences, and visiting scholars. They administer international exchange programs, enhance library holdings and other collections, publish papers and monographs, maintain archives, and employ graduate research assistants.

## COLLEGE FACILITIES

Strong and nationally funded research facilities, like the Facility for High Resolution Electron Microscopy and the Planetary Geology Laboratory have attained national and international prominence. Important research collections include one of the largest meteorite collections in the world, the holdings of the anthropology archives and museum, the space photography collection, the Herbarium, and extensive library holdings, including important manuscript collections in late 19th-cen-
tury British literature and historical documents of the Southwest.

Graduate students in all disciplines have access to outstanding computer facilities. Mainframe computing for research is provided free of charge.
There are substantial microcomputer facilities within individual academic units as well as clusters serving the humanities and social sciences. Minicomputer capabilities are found in various academic units. Also refer to the description of computing facilities and services on pages 31-32.

## Financial Assistance and Support

In addition to the usual support for graduate students in the form of stipends and teaching and research assistantships, there is a vigorous funding program to support graduate student research. Not only do graduate students obtain grants from external sources to
support their research projects, they also receive support from the college and university to present papers at professional meetings.

## ADVISING

Faculty advisors in each academic unit provide guidance to graduate students from admission through completion of the program. Consult the director of graduate studies in the appropriate academic unit. Graduate students must follow an approved program of study filed with the Graduate College. The calendar for enrollment activities is published in the schedule of classes for each semester. Teaching and research assistants, who are required to be enrolled in at least six hours, as well as those enrolled for individual project, thesis and dissertation credit, are subject to the same calendar deadlines as students enrolled in regularly scheduled classes.


# College of Nursing 

Barbara A. Durand, Ed.D.<br>Dean

## PURPOSE

The faculty of the College of Nursing acknowledges its responsibility to health care consumers for the preparation of individuals who will provide nursing care of professional quality through teaching, research, and service. The College of Nursing provides educational programs that prepare professional nurses to meet the nursing care needs of individuals, groups, and communities. To achieve this purpose, the college offers the baccalaureate, the graduate, and the continuing education programs. Within the context of a liberal education, the degree programs prepare professional nurses who

1. understand and respond to changing health and social needs and services,
2. influence nursing practice and health care through leadership and participation in professional and sociopolitical activities, and
3. utilize scientific knowledge to advance professional nursing practice.

The continuing education program provides opportunities for nurses to improve and expand their nursing practice, to meet the health care needs of various populations, and to further their own professional development.

## ORGANIZATION

The College of Nursing recognizes the three major missions of the university, i.e., teaching, research, and service. The responsibility of the associate dean for graduate programs and research is twofold: to oversee the master's program, including the progression of students through the program; and to work with faculty and students to facilitate research activities, such as research development. The associate dean for undergraduate programs and extended education is responsible for undergraduate degree programs, progression of students through the program, and extended and continuing education.

The faculty are grouped under two major clinical divisions within nursing: adult health/parent-child nursing and community health/psychosocial nursing systems. Each division has a chair, and each faculty member belongs to a division.

## GRADUATE PROGRAM

The graduate curriculum leads to the M.S. degree in Nursing. The graduate program provides an academic environment that fosters scholarship, critical thinking, and creativity, while preparing nurses for leadership as nurse specialists and beginning researchers. The program offers advanced-level courses that can be used as a base for doctoral study and for functional role development in teaching, management, or practice as a nurse practitioner.

Students may select one area of concentration from the following offerings:

Adult health nursing
Community health nursing
Community mental health/
psychiatric nursing
Nursing administration
Parent-child nursing (options include childbearing family and nursing of children)

The curriculum also provides elective study in teaching, management, and practitioner roles, including adult, child, family, psychiatric, and women's health nurse practitioner roles.

A student may concurrently pursue the M.S. degree in Nursing (nursing administration concentration) and the Master of Health Services Administration (College of Business).

## SPECIAL PROGRAMS AND SERVICES

## Continuing Education Program.

This program presents a variety of noncredit offerings on the main campus, west campus, and off-campus locations. These offerings are designed to assist practicing professional nurses in maintaining and enhancing their competencies, broadening their scientific knowledge base, and further developing their skills in the changing health care environment. Workshops, conferences, institutes, short evening courses, and special programs are offered at times convenient to the working professional. Some offerings are multidisciplinary and are also open to individuals in professions outside of nursing.
Student Services. The Student Services Office in the College of Nursing provides academic advising, general advising, and referral to university resources. Prospective students with academic questions relating to the College
of Nursing should contact the College of Nursing Student Services Office.

## Scholarships and Financial Assis-

 tance. Information about scholarships and loan funds for nursing students may be obtained from the Student Financial Assistance Office, College of Nursing Office of Student Services, or the associate dean for graduate programs and research.College Council of Nursing Students. The council is a member of ASASU (Associate Students of Arizona State

University) and serves as the governing body of all student activities in the college. The College Council of Nursing provides for communication, cooperation, and understanding among undergraduate students, graduate students, and faculty, and represents the college in university and nonuniversity affairs.

Graduate Nurse Organization. The Graduate Nurse Organization (GNO) is the coordinating body for nursing students in the graduate program. It provides programs, information, and
orientation services for graduate students and complements their academic experiences.

Sigma Theta Tau. Beta Upsilon Chapter of Sigma Theta Tau was chartered at the ASU College of Nursing in 1976. Membership in Sigma Theta Tau is an honor conferred on students in baccalaureate and graduate programs who have demonstrated outstanding academic and professional achievement.

## COLLEGE FACILITIES

Learning experiences with patients and their families are provided under the supervision of qualified faculty with the cooperation of a variety of federal, state, county, and private health agencies. The College of Nursing has contracts with more than 240 agencies in the Phoenix metropolitan area and also operates a unique nurse-managed clinic in a community setting.

Computer Facilities. Computers are available for student use in the Learning Resource Center of the college. Also refer to the description of computing facilities and services on pages 3132.

## ADVISING

Students are advised by the Student Services Office before admission to the graduate program. Upon admission, each student is assigned a faculty advisor within the area of concentration. Questions may also be directed to the associate dean for graduate programs and research.

## ACCREDITATION

The baccalaureate and master's programs of the College of Nursing are accredited by the Arizona State Board of Nursing and the National League for Nursing. The continuing education program is accredited by the Western Regional Accrediting Committee of the American Nurses' Association as a provider of Continuing Education for Nursing. The college is a member of the Council of Member Agencies for the Baccalaureate and Higher Degree Programs of the National League for Nursing, the Western Institute of Nursing, and the American Association of Colleges of Nurses.

# College of Public Programs 

Anne L. Schneider, Ph.D.<br>Dean

## PURPOSE

The College of Public Programs offers a wide range of course work, in both on-campus and off-campus settings, to full-time and part-time students. Through the Graduate College, faculty offer various programs leading to graduate degrees. Each academic unit of the College of Public Programs not only assumes responsibility in preparing its own majors, but also provides a variety of service courses for the rest of the university. The college is committed to excellence in teaching, research, and public service. College units work closely with numerous public and private agencies at the national, state, and local levels.

## ORGANIZATION

The College of Public Programs consists of five academic units: the Department of Communication, the Walter Cronkite School of Journalism and Telecommunication, the Department of Recreation Management and Tourism, the School of Public Affairs, and the School of Justice Studies. Each academic unit is administered by a chair or director.

Department of Communication. The faculty in the Department of Communication advance the understanding of message-related human behavior in part through the M.A. degree in Communication. The focus of the M.A. degree program is research in one of five areas: intercultural communication, interpersonal communication, organizational communication, performance studies, and rhetoric/public address.

Faculty in the Department of Communication participate in offering the interdisciplinary Ph.D. degree in Communication. The program is designed to prepare scholars for research-oriented careers in universities and in the public and private sectors and offers areas of study in critical/cultural studies, information technology, intercultural communication, interpersonal communication, organizational communication, performance studies, relational communication, and rhetoric.

Walter Cronkite School of Journalism and Telecommunication. The faculty in the Walter Cronkite School of Journalism and Telecommunication offer the Master of Mass Communica-
tion degree (M.M.C.). The M.M.C. is designed to accommodate students who wish to study in the fields of journalism, broadcasting, or public relations. The program provides broader training for professionals employed in the media and for those who wish to enter media fields.

## Department of Recreation Manage-

 ment and Tourism. The faculty in the Department of Recreation Management and Tourism offer a graduate program leading to the M.S. degree in Recreation. The program focuses both on building professional knowledge and developing the ability to critically analyze topics and issues related to the recreation and tourism fields. Students choose between pursuing a more academic, focused thesis option or the more professionally applied nonthesis option. Each student takes graduate core courses in the department and then can pursue individual interests with related course work and a research project in one of four general concentration areas: outdoor recreation, recreation administration, social/psychological aspects of leisure, and tourism and commercial recreation.School of Public Affairs. The faculty in the School of Public Affairs offer a professional graduate program leading to the Master of Public Administration degree. Courses are offered in the evenings to fit the scheduling needs of working students. The diversity of the school's program offerings accommodates both preservice students and midcareer public administrators. State and local government internships are available to those with no previous public sector experience. Students work with faculty on the school's active research and publications program, including public policy reports and other community service projects for state and local governments in Arizona.

The school also administers the interdisciplinary Doctor of Public Administration program under the auspices of the Graduate College. Faculty of the School of Public Affairs participate in offering this degree program.

The School of Justice Studies. The School of Justice Studies provides an interdisciplinary social science perspective for studying law and justice, crime and delinquency, dispute resolution,
gender justice, racial and ethnic minorities and the law, and social and economic justice. Its faculty have academic backgrounds in anthropology, criminology, history, law, philosophy, political science, psychology, public administration, and sociology.

Faculty in the School of Justice Studies also participate in offering the Doctor of Public Administration degree. The school administers the interdisciplinary Ph.D. program in Justice Studies under the auspices of the Graduate College.

## GRADUATE PROGRAMS

Graduate degree programs as shown in the "College of Public Programs Graduate Degrees, Majors, and Concentrations" table on this page are offered by the faculty within the college.

One of the unique features of an interdisciplinary program is that, because it uses faculty research and teaching interests from a number of academic units, a student may tailor a course of study to fit individual needs and goals.

## ADMISSION REQUIREMENTS

Admission requirements of all advanced degree programs within the college are connected with those required by the Graduate College. In addition, individual units may require further supporting materials such as letters of recommendation, scores on the Graduate Record Examination or the Miller Analogies Test, statements of educational and career goals, and writing samples. Applicants should refer to requirements specified by the academic unit under each degree program in this catalog.

## SPECIAL PROGRAMS

## Concurrent M.A. in Anthropology

 and M.S. in Justice Studies. Graduate students in the School of Justice Studies and the Department of Anthropology may pursue a concurrent M.S. degree in Justice Studies and M.A. degree in Anthropology with a concentration in social-cultural anthropology. The purpose of the program is to prepare individuals with combined, complemen-tary knowledge and skills for basic and applied research, and administrative and educational activities related to both disciplines. Students must be admitted separately to each program, following the guidelines established by the Graduate College, Department of Anthropology, and School of Justice Studies. Additional information on concurrent degrees may be obtained from the respective academic units.

Other research and service programs within the college include the Center for Urban Studies, the Morrison Institute for Public Policy, the Office of Hazard Studies, the Media Research Program, and the Advanced Public Executive Program, which provides training leading to certification as a public manager.

## Concurrent Ph.D. in Justice Studies/

J.D. The purpose of the Ph.D. in Justice Studies/J.D. is to provide a rigorous education for highly qualified students interested in pursuing academic careers in law, law and the social sciences, or law and philosophy.

College of Public Programs Graduate Degrees, Majors, and Concentrations

| Major | Degree | Administered by |
| :--- | :--- | :--- |
| Communication <br> Communication <br> Concentrations: communicative development, <br> intercultural communication, organizational <br> communication | M.A. | Department of Communication <br> Committee of Faculty |
| Justice Studies <br> Justice Studies <br> Concentrations: criminal and juvenile justice; <br> dispute resolution; law, justice, and minority <br> populations; law, policy, and evaluation; women, <br> law, and justice | Ph.D. ${ }^{2}$ |  |
| Mass Communication | School of Justice Studies <br> Committee on Law and Social Sciences |  |
| Public Administration <br> Concentrations: public information management, <br> public management, public policy analysis and <br> evaluation, urban management and planning | M.P.A. | M.M.C. |

[^2]
## COLLEGE FACILITIES

Microcomputer training and remote site terminal access are available to students in all programs within the College of Public Programs. Academic units provide facilities, equipment, and support for student research, including laboratory space, computer terminals connected to the mainframe computer, and personal computers for individual student use. Also refer to the description of computing facilities and services on pages 31-32.
Broadcast laboratories within the School of Journalism and Telecommunication have the latest in-studio and

ENG-EEP equipment, and provide facilities for performance, writing, and the other necessary broadcast skills.

## ADVISING

Advising of graduate students is normally handled by senior faculty members within the academic unit under the direction of a graduate faculty or committee. Once admitted, students are typically assigned a temporary faculty advisor in the potential areas of specialization who will assist in planning a course of study. For those degree programs requiring the completion of a thesis, a chair and thesis supervisory committee are selected by the director
of graduate studies, in consultation with the student, and appointed by the dean of the Graduate College.

## ACCREDITATION

The Walter Cronkite School of Journalism and Telecommunication is accredited by the Accrediting Council on Education in Journalism and Mass Communication (ACEJMC). The Master of Public Administration program is accredited by the National Association of Schools of Public Affairs and Administration. The School of Justice Studies is a member of the American Association of Doctoral Programs in Criminal Justice and Criminology.

## School of Social Work

Emilia E. Martinez-Brawley, Ed.D.

## PURPOSE

The ASU School of Social Work has designed a graduate curriculum that prepares students for an empirical approach to social work practice. Research and practice in service effectiveness represent a challenging agenda for future scholarly inquiry and provide the basis of graduate training for researchers and practitioners.

As evidenced by its activities in teaching, research, and service, the school addresses the kinds of social problems that affect underserved populations. However, while theoretical frameworks and practice models continue to be stressed, a major new frame of reference is the establishment of an empirical context for practice. The goal is to practice social work on the basis of effectiveness. When subjected to scholarly inquiry, critique, and analysis, empirical data can provide answers to some of the questions that social scientists, practitioners, and policy makers have been asking for generations.

Empirically based social work practice among underserved populations presents a sizable challenge but holds the potential for filling a critical need. The challenge is the development of a valid and reliable database for use in measuring effectiveness of services provided to all types of clients with many different needs. The ultimate benefit of such a system is the concentration of resources where they are most effective. Many billions of federal, state, local, and private dollars are allocated every year to social service programs. Are these dollars contributing toward the abatement of social problems in this country? For the most part, no answers exist, but with the development of an empirically based approach to social work practice, the groundwork is laid that ultimately will provide answers.

## ORGANIZATION AND GRADUATE PROGRAMS

Through the Graduate College, faculty offer two graduate programs in the field of social work: the Master of Social Work degree and the Ph.D. degree in Social Work. As one of the smaller colleges on campus, the School of Social Work has an enrollment of about 500 undergraduate and 630 graduate students in programs offered by 30 faculty members. The size of the college
encourages interaction between faculty and students and emphasizes individual attention.

The master's degree program has two options in the second year, Direct Practice (DP) and Planning, Administration and Community Practice (PAC). In considering the PAC option, students need to be aware that because of space availability, preference will be given for significant previous experience. The M.S.W. program offers founda-tion-level courses in Tucson as part of its Southern Arizona component.

The number of semester hours required to complete the M.S.W. degree ranges from 40 to 60 , with 60 hours representing the standard program.

The Ph.D. degree program requires at least 36 semester hours of course work beyond the master's degree and 84 semester hours beyond the baccalaureate degree. The program of study includes: micro/macro theories and perspectives on critical issues in social work and social welfare; quantitative/ qualitative research methodologies; and professoriate training and mentoring in research, teaching, and service. Applications for the Ph.D. degree in Social Work are not being accepted for the 1998-99 academic year.

## ADMISSION REQUIREMENTS

In addition to the general requirements of the Graduate College, the following admission criteria have been established for the Master of Social Work program:

1. a 3.00 GPA in the last two years of bachelor's degree work (under exceptional circumstances provisional admission may be granted with less than a 3.00);
2. demonstrated motivation to pursue professional social work education, to work with populations served by social workers, and to work with special populations of the Southwest;
3. evidence of successful work experiences in human services; and
4. Graduate Record Examination or Miller Analogies Test scores.
All students are required to successfully complete a course in human biology before enrolling in the graduate program. Additionally, all students must have successfully completed a course in statistics before admission. If the statistics requirement has not been
met, then an equivalent course must either be successfully completed by December 31 or before registering for SWG 519.

The following criteria for admission have been established for the Doctor of Philosophy degree program:

1. Graduate Record Examination scores;
2. outstanding academic performance at undergraduate and graduate levels of study;
3. evidence of leadership and competent work experience in human services;
4. demonstrated ability to write for publication;
5. motivation to contribute to the social work body of knowledge through research, publication, practice, and teaching; and
6. strong interest in focusing research and scholarly inquiry on social and personal problems faced by underserved populations.

## Financial Assistance

Financial assistance is severely limited. It is important that students have a sound financial plan for covering expenses while pursuing the degree program. Financial awards are made only when an applicant has been approved for admission.

## SPECIAL PROGRAMS

Because of the size of the M.S.W. and Ph.D. degree programs, the school has chosen to tailor programs to individual interests rather than to structure formal specializations. At the master's level, all students select either direct practice (DP) or planning, administration, and community practice (PAC). In addition, through the advising system, students have the opportunity to identify course work and field education experiences that contribute toward the building of a specialized expertise.

By combining elective courses, field experiences, research, and specialized study, students may focus on one or more of several fields of service, such as health, mental health, aging, employment and economic support, or other areas. Students with special interests in African American studies, Hispanic studies, Native American studies, or women's studies may also tailor their programs to address these interests. These interests may sometimes be pur-
sued in courses offered by other academic units.

## Certificate in Gerontology

An interdisciplinary Certificate in Gerontology (see page 215) is available to students who are interested in this area of specialization. The program is offered by the Gerontology Program.

## COLLEGE FACILITIES

The School of Social Work is located in West Hall in the center of the main campus, directly opposite Hayden Library. All administrative and faculty offices are located in West Hall. Videotaping, playback, and critique of student interviewing performances are regularly incorporated into the teaching of direct practice skills. Extensive use is made of personal computers in training students to monitor client performance and manage information. Also
refer to the description of computing facilities and services on pages 31-32.

## ADVISING

Academic Services handles all early inquiries about admission, scheduling, planning a course of study, and financial assistance. Once a student has been admitted to the program, a faculty advisor is assigned. The primary function of the faculty advisor is to help students select electives, to explore career opportunities, and to counsel students should academic difficulties arise.
Social work students must meet with an academic advisor before registering for any courses.

## ACCREDITATION

The School of Social Work is fully accredited by the Council on Social Work Education.


[^0]:    1 Applications for this program are not being accepted at this time.
    2 This program is administered jointly by the College of Education and the Graduate College. See "Graduate College," pages 54-55.
    3 Major with formalized concentration(s); other areas of study are available.

[^1]:    ${ }^{1}$ Major with formalized concentrations; other areas of study are available.
    2 This program is administered by the Graduate College. See "Graduate College," pages 54-55.

[^2]:    ${ }^{1}$ Graduate students in the School of Justice Studies and the Department of Anthropology are able to pursue a concurrent M.S. degree in Justice Studies and M.A. degree in Anthropology.
    ${ }^{2}$ This program is administered by the Graduate College. See "Graduate College," pages 54-55.

