

STRATEGIC PLAN FOR GRADUATE EDUCATION AND RESEARCH

The goals of the Graduate School for graduate education and research are:

- By 2010, enroll 4,364 domestic students and 1,136 international students, for a total graduate enrollment of 5,500
- By 2010, enroll 960 underrepresented graduate students thereby equaling their representation in the state
- By 2010, graduate at least 185 doctoral students per year and at least 1,295 master's and specialist students per year
- By 2010, submit 1500 proposals per year which generate at least \$100 million in new grant awards, have a total research expenditure of at least \$150 million/year and have a total federal expenditure for research of at least \$50 million/year
- Continue to serve as a catalyst for research and creative activity on campus, including the integration of research and teaching

Graduate Education

We will increase graduate enrollment through a combination of strategies, including:

- Recruitment of domestic students, with special attention to reaching out to underrepresented groups and enhancing the diversity of our graduate student population
- Recruitment of international students
- Retention (see below)
- Assist the deans in the strategic development of new degree programs, particularly in multi- and inter-disciplinary areas (see below)
- Assist the deans in increasing resources to existing degree programs (see below)

Research

We will stimulate research and creative activity, continue to integrate research into our educational mission, and increase external support for research through a combination of traditional and innovative strategies, including:

- Traditional support through the Office of Research Support and Sponsored Programs for faculty, staff, and student investigators
- Increased mentoring for faculty and graduate students in preparing proposals and the responsible conduct of research
- Continuation of current supportive policies such as providing support for visiting funding agencies and identifying corporate partners
- Increased grant activity as a result of new degree programs
- Pursuing federal support through continuing collaboration with Van Scoyoc and Associates
- Maintaining a robust research infrastructure which provides the tools and training necessary to conduct competitive research (see below)
- Assist in the development of focused but flexible organizational units that encourage collaborative research and can respond rapidly to large-scale funding opportunities (see below)
- Encourage the development of strategic hiring plans which build active research groups around endowed chairs and professorships (see below)

Retention

Our enrollment and graduation goals, for 2010 and beyond, cannot be attained without increased retention. The *Council of Graduate Schools* has begun a project entitled "The Ph.D. Completion Project," which will give us some insights into best practices in this area. However, we already know much about how to retain both master's and doctoral students, although the strategies differ slightly for the two groups; and we have begun implementing programs to retain underrepresented students. For doctoral students, the most important factor will be to connect the student with an appropriate faculty advisor. For all students, we must create a welcoming and supportive graduate community. Some examples taken from the *Strategic Plan* for the Office of Graduate Recruitment are:

- Help to increase the level of awareness and support for graduate minority students, by partnering with faculty and staff
- Develop a peer recruitment and reclamation program
- Help make graduate students aware of resources available on campus for counseling
- Provide a communication vehicle between graduate students and the Office of Graduate Recruitment
- Develop seminars to facilitate academic growth, leadership development, and the responsible conduct of research

Development of New Degree Programs

The following new degree programs have been suggested as having the potential to increase graduate enrollment, diversity, and degree production. In addition, some of these programs will increase research funding and/or increased tuition.

- Ph.D. in Workforce Development
- Creation of a School Counseling specialization in the M.S. in Counseling to focus on bilingual (Spanish/English) culturally competent school counselors

- M.S. and Ph.D. in Human Nutrition Science, interdepartmental between Food Science and Human Environmental Sciences.
- Biomedical Engineering Option to the Ph.D. in Engineering
- M.A. program in English as a Second Language.
- An interdisciplinary M.A. degree in Criminal Justice – Department of Sociology and Criminal Justice, or a new interdisciplinary Department of Criminal Justice.
- A master’s degree in Biostatistics – Departments of Biological Sciences and Mathematical Sciences
- A master’s degree or certificate in Community College Teaching
- A certificate in Computational Biology

Increases in Enrollment in Existing Programs

In addition to these new programs, we feel that the following existing degree programs have the potential to attract increased numbers of students. Additional resources are indicated as needed.

- All of our cross-college interdisciplinary programs (Cell & Molecular Biology, Microelectronics-Photonics, Space and Planetary Sciences, Public Policy) and Environmental Dynamics
- Master of Science in Biomedical Engineering
- The cultural studies concentration in the Ph.D. in Comparative Literature
- Psychology
- Recreation (leisure studies)

Building a Robust Research Infrastructure

The efficient conduct of modern research requires sophisticated tools and services which are accessible to investigators across the campus. We propose to assist in the designation and establishment of “University Research Support Centers” (URSC) whose mission is to collectively establish a set of tools and services that comprise a robust campus-wide research infrastructure. A URSC may be administratively housed in a program, department or college; however, the central administration will partially fund a hard-budgeted director position for the URSC in exchange for a pledge that the center will provide equal access to all campus researchers. Examples of units which are currently organized along this model are the Mass Spectroscopy Laboratory, the Nuclear Magnetic Resonance Imaging Facility, the Molecular Beam Epitaxy Facility, the Survey Research Center, and the Glassblowing/Machine Shop. An existing center which would benefit from this organization is the Arkansas Analytical Laboratory. The High Performance Computing Facility (Red Diamond) is a potential URSC and the Provost has agreed to provide partial support for a director of this facility.

Promoting a Collaborative Research Culture

Modern research tends to cross traditional disciplinary lines and requires teams of faculty whose existing relationship is positioned to respond to large-scale research challenges and funding opportunities. We propose assist in the designation and establishment of “University Research Advancement Centers” (URAC) whose mission is to provide a broad vision of university research and serve as foci for multidisciplinary scholarly engagement. The administrative and financial structure of the URACs will be similar to the URSCs described above. URACs may be administratively housed in a program, department, or college, but this designation will impart enhanced access to centralized funds, including allocated start-up funds, and a corresponding commitment to rally research expertise from across the campus. An example of an existing unit in this model is the Center for Advanced Spatial Technologies.

After the Campaign: Strategic Hiring for the 21st Century

Departments often select tenure-track faculty based on pressing but relatively transient motives, even though these decisions have an impact on the university for decades. While hiring decisions are not within the purview of the Graduate Dean/Vice Provost for Research, we urge the University to broaden and extend the vision of our hiring decisions through the following steps:

- Give priority to early-career hires whose research area will complement an endowed chair or professor
- Allocate a portion of available start-up funds to collaborators of a new faculty member or to supporting research facilities and centers
- Encourage collaboration and a broader vision by requiring all tenure-track search committees to include members from more than one department
- Place a high priority on the ability of a potential faculty member to engage graduate and undergraduate students in research and attract students from a diverse population