

# MSU INVESTMENT PROPOSAL FOR INSTITUTIONAL PRIORITIES

## PROPOSAL OVERVIEW

<b>Title</b>	Advancing Graduate Education Through Infrastructure Enhancement	<b>Request Date</b>	January 1, 2012
<b>Department</b>	Graduate School	<b>Email</b>	carl.fox1@montana.edu
<b>Requestor</b>	Carl Fox	<b>Phone</b>	X5555

## STRATEGIC ALIGNMENT

**Core Themes and Objectives (check all that apply)**

### Educate Students

- Our graduates will have achieved mastery in their major disciplines
- Our graduates will become active citizens and leaders
- Our graduates will have a multicultural and global perspective
- Our graduates will understand the ways that knowledge & art are created and applied in a variety of disciplines
- Our graduates are prepared for careers in their field
- We will provide increased access to our educational programs
- Communities and external stake holders benefit from broadly defined education partnerships with MSU

### Create Knowledge and Art

- Students, faculty, and staff will create knowledge and art that is communicated widely

### Serve Communities

- We help meet a fundamental need of the citizens of Montana by providing degree programs for our students
- We help meet the educational needs of the citizens of Montana by providing a wide range of educational opportunities to a variety of students
- Our students, faculty, staff, and administrators reach out to engage and serve communities
- Our students, faculty, staff, and administrator reach in to build the university community

### Integrate Learning, Discovery, and Engagement

- Each graduate will have had experiences that integrate learning, discovery and engagement
- Outreach activities will educate students and address the needs of the communities we serve
- Students, faculty, and staff will create knowledge and art that addresses societal needs
- MSU is a community that will be characterized by synergy within and across disciplines, roles and functions.

### Stewardship

- The public trusts the institution to operate openly and use resources wisely
- The faculty and staff are well-qualified and supported
- MSU will support Native American students, programs, and communities
- MSU will be an inclusive community, supporting and encouraging diversity
- Our publicly provided resources are used efficiently and effectively
- Natural resources are used efficiently and sustainably
- MSU nurtures a culture of resource conservation and ecological literacy among students, faculty and staff
- Our physical infrastructure (e.g., building, equipment, open spaces) will be well-maintained and useful

INSITUTIONAL BENEFIT						
<b>Campuses</b>	x <input type="checkbox"/> Bozeman x <input type="checkbox"/> Billings x <input type="checkbox"/> Havre <input type="checkbox"/> Great Falls <input type="checkbox"/> FSTS <input type="checkbox"/> Extension <input type="checkbox"/> MAES					
<b>Cross Depts</b>	Please List: All MSU departments will benefit. Departments with graduate programs will see a direct and positive impact while MSU departments currently without graduate programs will benefit with expanded graduate education opportunities for their graduating undergraduates , collaborative opportunities for their faculty across the MUS system, and assistance in the development of new graduate degree or certificate programs.					
TIMEFRAME						
<b>Proposed Dates</b>	Start: January 1, 2012			End: Continuing		
COST AND REQUIREMENTS						
Funding Type	One-Time (\$)	Multi-Year (\$)			Base (\$)	FTE
		Year 1	Year 2	Year 3		
Personnel (w/benefits)					54000.	1.75
Materials & Supplies						
Travel						
Contracted Services						
Capital						
Other Operations						
<b>TOTAL</b>					54000.	1.75

**Please comment, if necessary, regarding cost and requirements.**

The Graduate School requests the authority to retain the \$30 fee per Graduate School application that currently is sent to the University's general fund. Revenue generated from the application fee for the general fund is estimated (three year average---1800 applications @ \$30 each) at \$54,000. The Graduate School proposes to retain the \$30 from each application to fund the proposed objectives. These funds will be used to support the following positions: Admissions Coordinator I (1.0 FTE at \$24,000), Communications Officer (0.5 FTE at \$15,000), and a doctoral Graduate Research Assistant (GRA at 10 hours per week (0.25 FTE at \$10,000). The funds (\$5000) will also be used in a pilot study to assess the effectiveness of buying names from the Graduate Record Exam (GRE) in recruiting doctoral students to three specific programs.

## PROPOSAL SCOPE

### Describe the Proposal

The Graduate School requests the authority to retain the \$30 fee per Graduate School application that currently is sent to the University's general fund. The major factor limiting The Graduate School from increasing its effectiveness and efficiency in supporting graduate education at MSU is a lack of appropriate staff and professional personnel. For example, the Graduate Schools with similar graduate student populations and university responsibilities at the University of North Dakota, Utah State University, Washington State University, and Kansas State University have staffing levels of 17, 19, 20, and 13 FTE, respectively. These staff levels compare with MSU's Graduate School staff FTE of 7.0. Clearly, for MSU to be competitive and a national leader in graduate education, investments must be made in the infrastructure, specifically personnel.

The funds requested from retention of graduate application fee revenue will be used to support the following positions: Admissions Coordinator I (1.0 FTE), Communications Officer (0.5 FTE), and doctoral Graduate Research Assistant (GRA at 10 hours per week (0.25 FTE)). Filling these positions will provide the opportunity for the Graduate School to increase its effectiveness and efficiency by placing responsibilities and authorities with the right personnel. For example, the Admissions Coordinator 1 (entry level) will complete admissions tasks now assigned to the Admissions Coordinator 4 position. Support for the Communications Officer and GRA will provide the Graduate School the opportunity to support new or expand existing initiatives that address MSU's Core Themes and meet specific MSU Objectives.

The Graduate School proposes the following goals with defined measurable objectives to advance graduate education at MSU by supporting critical infrastructure through the retention of the \$30 portion of the graduate application fee. The proposed goals and objectives specifically address the framework of the Core Themes, Objectives, and Indicators outlined in the report to the Northwest Commission.

#### **Goal 1: Increase the number of graduate students with an emphasis on doctoral students.**

- Shorten application response time from 5 days to 3 days to increase responsiveness and, hence, competitiveness of MSU graduate programs.
- Support the establishment and administration of a campus-wide Graduate Student Recruiting Council to coordinate recruitment activities across departments.
- Fund a capacity study of doctoral programs to define specific recruitment strategies based on opportunities for growth by supporting a GRA.
- Expand the Graduate Student Recruitment Weekend by providing administrative support, orientation programming, and career-focused advising for each degree program.
- Purchase and/or acquire names of potential students from the GRE and assess the effectiveness of this recruitment strategy through a pilot study based on degree programs in the sciences, humanities, and engineering (approximately 3 programs).
- Develop and implement a graduate recruitment program for undergraduate students attending Montana University System schools beginning at the sophomore level.
- Develop and implement a Graduate Student Ambassador program to involve current graduate students in recruitment efforts. Funding will support student travel to recruitment events, campus-based recruitment activities, and specific recruitment-focused communications with perspective graduate students.

#### **Goal 2: Increase graduate degree completion rates emphasizing doctoral degrees.**

- Develop and implement a tracking system to assess the progress of all graduate students on a semester basis. Report the status (progress toward degree completion) to department heads, graduate coordinators, and major advisors of graduate students in their degree programs. If students are not making significant progress, develop and implement a written plan to get the graduate student "on track" to complete their degree in a timely manner.
- Develop and implement a mandatory "Doctoral Boot Camp" for doctoral students at the beginning of their second semester. The Boot Camp will help prepare doctoral students for major milestones (Programs of

Study, Comprehensive Exams, Doctoral Research Proposals, Seminars and Professional Presentations, Professional Publications, Dissertations, and Career Opportunities).

- Expand the ongoing doctoral completion study by identifying and interviewing students who have dropped out of MSU doctoral programs to define factors that lead them to withdraw from the program.
- Implement the Degree Works software at the graduate level including the development and implementation of “electronic” Programs of study.

**Goal 3: Increase the competitiveness of MSU graduate programs.**

- Complete a development plan for the establishment a doctoral fellowship program with the MSU Foundation through involvement in the current campaign and targeted proposal submissions to foundations, business/industry, and other private organizations.
- Develop and implement an internship program with business/industry, nonprofits organizations, and governmental agencies that will provide career development opportunities for graduate students.
- Complete and submit two or more proposals to private or governmental organizations to support graduate students with an emphasis on underrepresented minority students at the doctoral level (e.g., U.S. Dept. of Education GAANN, NSF IGERT, NIH Bridges to the Doctorate).
- Formalize Professional Development Programs for Graduate Students that includes: (1) Week-long Teaching Assistant Training to enhance instruction to improve undergraduate retention; (2) Professional writing course focused on proposal development, journal articles, and poster presentations (1 credit); (3) College teaching course for Graduate Teaching Assistants (2 credits); (4) Up to 4 workshops focused on professional communications (formal, informal, oral, written, curriculum vitae development, interviewing, etc.); and (5) Development and implementation of a Peer-based Mentoring Program including support for graduate organizations such as Women in Science & Engineering (WISE) and the Native American Graduate Student Organization.
- Support faculty in the exploration and development of new graduate certificate, training, and degree programs. Specific support will focus on the development of a business plan, Level I or II proposal, and a marketing and recruitment strategy.

**Goal 4: Increase the visibility of MSU graduate programs at the university, state, regional, national, and international levels.**

- The Graduate School Communications Officer will work closely with MSU Communications to develop and implement a promotional campaign for graduate programs. Potential efforts include enhancement of the Graduate School website, development of written materials (e.g., Driving Discovery, Degree Program brochures, etc.), promotion of graduate student achievement, and inclusion of graduate programs in MSU promotional events, materials, and publicity.

**Goal 5: Enhance collaboration among MUS institutions offering graduate degree programs through the MSU-Bozeman lead Montana University Graduate Schools (MUGS) organization.**

- Members of MUGS (MSU-Bozeman, MSU-Billings, MSU-Northern, UM-Missoula, and UM-Montana Tech) are implementing the development of joint recruiting materials, collaborative recruiting at national events (e.g., SACNAS, AISES, etc.), graduate course enrollment at any MUGS university, single application for all MUGS graduate schools, and increased faculty participation in graduate programs regardless of the university home. The Director of Graduate Admission along with the Communications Officer will lead this effort.

## PROPOSAL SCOPE

### Describe the broader impacts and benefits of this proposal

#### **Goal 1: Increase the number of graduate students with an emphasis on doctoral students.**

**Impact:** For MSU to be a highly visible and nationally and internationally recognized land grant university, graduate education must be at the centerpiece of that effort. Goal 1 will focus on the development and implementation of new recruitment strategies particularly at the doctoral level including increased responsiveness to applicants, a coordinated campus-wide recruiting effort, degree program specific recruiting (e.g., GRE names), and peer-based recruitment efforts. These efforts will lead to an increase in the quality and quantity of graduate students in specific programs particularly at the doctoral level. This will help place MSU among the best land grant universities in the U.S.

#### **Goal 2: Increase graduate degree completion rates emphasizing doctoral degrees.**

**Impact:** Nationally, doctoral completion rates across all degree programs are estimated at 56%. MSU completion rates are comparable with most programs at or above the national averages for their respective degree programs (i.e., science and engineering are generally higher and arts and humanities lower). The proposed efforts by the Graduate School will increase completion rates and increase doctoral degrees awarded. This will help move MSU into a stronger position nationally relative to doctoral programs and increase the competitiveness of our doctoral programs.

#### **Goal 3: Increase the competitiveness of MSU graduate programs.**

**Impact:** Graduate programs by definition to be successful particularly at the doctoral level must be nationally and internationally competitive for the best students. Financial support (competitive assistantships) for graduate students is critical especially for doctoral STEM (Science, Technology, Engineering, and Math) students. At MSU over 80% of the graduate degrees are in STEM fields making support for graduate students central to success. Doctoral fellowships, in particular, are exceptionally important and bring tremendous recognition to the University. While financial support is critical, today's focus on jobs and careers require graduate schools to provide professional development programs, internships, focused fellowship programs, and career focused mentoring. The impact of the Goal 3 is the increased success of master's and doctoral degreed students in their chosen fields in terms of jobs and career success following graduation. The impact will also be in developing and offering specific graduate programs that provide exceptional training and preparation for jobs and career.

#### **Goal 4: Increase the visibility of MSU graduate programs at the university, state, regional, national, and international levels.**

**Impact:** The Graduate School has been successful in increasing the visibility of graduate programs. The Graduate School has developed a number of publications (annual report, 2 page degree descriptions, "Driving Discovery" publication, etc.), completely revised its webpage, established a Facebook site, co-organized the research celebration, acquired fellowship funding for Native American graduate students, and recruited exceptional students to the Molecular Biosciences doctoral program. However, the Graduate School has not had the personnel to work closely with MSU Communications. The impact of Goal 4 will be the development and implementation of promotional plan for graduate programs at MSU. Such a plan upon implementation will be recognition to MSU graduate programs on national and international scales.

#### **Goal 5: Enhance collaboration among MUS institutions offering graduate degree programs through the MSU-Bozeman lead Montana University Graduate Schools (MUGS) organization.**

**Impact:** The Graduate School at MSU--Bozeman created, initiated, and has led the development of the Montana University Graduate Schools (MUGS) organization. Member MUGS universities recognize that through close collaboration, the competitiveness of MUS graduate programs can be greatly increased by working together. MSU--Bozeman is leading current collaborative efforts including: Development of joint recruiting materials, collaborative recruiting at national events (e.g., SACNAS, AISES, etc.), graduate course enrollment at any MUGS university, single

application for all MUGS graduate schools, and increased faculty participation in graduate programs regardless of the university home. The impact of Goal 5 will be an increase in the quantity and quality of graduate students across MUGS universities through collaboration and cooperation. Collectively, MUGS can offer graduate degree programs equivalent in number to the largest universities in the U.S. This makes Montana graduate education second to none.

## ADDITIONAL INFORMATION

### Implementation Plan *(Please describe with timelines)*

#### Milestones (completion dates)

##### **Goal 1: Increase the number of graduate students with an emphasis on doctoral students.**

- Shorten application response time from 5 days to 3 days to increase responsiveness and, hence, competitiveness of MSU graduate programs. (January 2013)
- Support the establishment and administration of a campus-wide Graduate Student Recruiting Council to coordinate recruitment activities across departments. (February 2012)
- Fund a capacity study of doctoral programs to define specific recruitment strategies based on opportunities for growth by supporting a GRA. (June 2013)
- Expand the Graduate Student Recruitment Weekend by providing administrative support, orientation programming, and career-focused advising for each degree program. (March 2012)
- Purchase and/or acquire names of potential students from the GRE, McNair Program, California Diversity Forum, etc. and assess the effectiveness of this recruitment strategy through a pilot study based on degree programs in the sciences, humanities, and engineering (approximately 3 programs). (February 2012)
- Develop and implement a graduate recruitment program for undergraduate students attending Montana University System schools beginning at the sophomore level. (October 2012)
- Develop and implement a Graduate Student Ambassador program to involve current graduate students in recruitment efforts. Funding will support student travel to recruitment events, campus-based recruitment activities, and specific recruitment-focused communications with perspective graduate students. (June 2012)

##### **Goal 2: Increase graduate degree completion rates emphasizing doctoral degrees.**

- Develop and implement a tracking system to assess the progress of all graduate students on a semester basis. Report the status (progress toward degree completion) to department heads, graduate coordinators, and major advisors of graduate students in their degree programs. If students are not making significant progress, develop and implement a written plan to get the graduate student "on track" to complete their degree in a timely manner. (June 2012)
- Develop and implement a mandatory "Doctoral Boot Camp" for doctoral students at the beginning of their second semester. The Boot Camp will help prepare doctoral students for major milestones (Programs of Study, Comprehensive Exams, Doctoral Research Proposals, Seminars and Professional Presentations, Professional Publications, Dissertations, and Career Opportunities). (August 2012)
- Expand the ongoing doctoral completion study by identifying and interviewing students who have dropped out of MSU doctoral programs to define factors that lead them to withdraw from the program. (June 2013)
- Implement the Degree Works software at the graduate level including the development and implementation of "electronic" Programs of study. (June 2013)

##### **Goal 3: Increase the competitiveness of MSU graduate programs.**

- Complete a development plan for the establishment a doctoral fellowship program with the MSU Foundation through involvement in the current campaign and targeted proposal submissions to foundations, business/industry, and other private organizations. (August 2012)
- Develop and implement an internship program with business/industry, nonprofits organizations, and governmental agencies that will provide career development opportunities for graduate students. (August 2012)
- Complete and submit two or more proposals to private or governmental organizations to support graduate students with an emphasis on underrepresented minority students at the doctoral level (e.g., U.S. Dept. of Education GAANN, NSF IGERT, NIH Bridges to the Doctorate). (September 2012)
- Formalize Professional Development Programs for Graduate Students that includes: (1) Week-long Teaching Assistant Training to enhance instruction to improve undergraduate retention; (2) Professional writing course focused on proposal development, journal articles, and poster presentations (1 credit); (3) College teaching course for Graduate Teaching Assistants (2 credits); (4) Up to 4 workshops focused on professional communications (formal, informal, oral, written, curriculum vitae development, interviewing, etc.); and (5) Development and implementation of a Peer-based Mentoring Program including support for graduate organizations such as Women in Science & Engineering (WISE) and the Native American Graduate Student Organization. (May 2013)
- Support faculty in the exploration and development of new graduate certificate, training, and degree



programs. Specific support will focus on the development of a business plan, Level I or II proposal, and a marketing and recruitment strategy. (Ongoing)

**Goal 4: Increase the visibility of MSU graduate programs at the university, state, regional, national, and international levels.**

- The Graduate School Communications Officer will work closely with MSU Communications to develop and implement a promotional campaign for graduate programs. Potential efforts include enhancement of the Graduate School website, development of written materials (e.g., Driving Discovery, Degree Program brochures, etc.), promotion of graduate student achievement, and inclusion of graduate programs in MSU promotional events, materials, and publicity. (August 2012)

**Goal 5: Enhance collaboration among MUS institutions offering graduate degree programs through the MSU-Bozeman lead Montana University Graduate Schools (MUGS) organization.**

- Members of MUGS (MSU-Bozeman, MSU-Billings, MSU-Northern, UM-Missoula, and UM-Montana Tech) are working on the development of joint recruiting materials, collaborative recruiting at national events (e.g., SACNAS, AISES, etc.), graduate course enrollment at any MUGS university, single application for all MUGS graduate schools, and increased faculty participation in graduate programs regardless of the university home. The Director of Graduate Admission along with the Communications Officer will lead this effort. (August 2012)



**Assessment Plan** *(Please describe with indicators)*

**Assessment Plan Indicators**

- Number and quality (GRE scores, undergraduate gpa, research publications) of graduate students recruited to MSU graduate programs.
- Number of students recruited by buying names from the GRE.
- Graduate degree completion rates and time to degree measures for each graduate degree program.
- Job success rate in the field of study for graduate degree recipients within one year following graduation.
- Number of annual applicants to MSU graduate programs.
- Dollars committed to doctoral fellowship campaign associated with the MSU Foundation/Alumni Assoc.
- Number of graduate students completing internship programs
- Number of proposal submitted to outside organizations to support graduate students
- Number of graduate students participating in professional development programs
- Number of new graduate certificate and degree programs approved by the Board of Regents
- Number of national recruiting events attended by MUGS universities.
- Number of graduate students enrolling in courses at MUGS universities outside their home institution.
- Number of collaborative graduate programs among two or more MUGS universities
- Number of faculty participating in graduate programs at MSU-Bozeman who are not MSU—Bozeman faculty but are members of MUGS institutions.

**If assessed objectives are not met in the timeframe outlined, what is the plan to sunset this proposal?**

The goals established in this proposal will continue to be important and relevant beyond the completion of the specific objectives. Objectives that are not met within the estimated time frame will be evaluated based on the assessment indicators keeping in mind unanticipated barriers, delays in implementation, etc. Most of the proposed objectives are clearly dependent on recruiting and hiring exceptionally competent personnel. Others are more straight-forward but will require an evaluation over more than one year. The proposed objectives will continue as revenue is generated by graduate school applications. With increased applications and associated revenue, The Graduate School will be able to expand current and proposed activities as well as develop new initiatives to enhance graduate education.

SIGNATURES					
<b>Department Head</b> <i>(please print)</i>		<b>Signature</b> <i>(required)</i>		<b>Date</b>	
Dr. Carl Fox					
<b>Dept Head Priority</b> <i>(please circle one)</i> :    x Very High    High    Medium    Low    Very Low					
<b>Dean/Director</b> <i>(please print)</i>		<b>Signature</b> <i>(required)</i>		<b>Date</b>	
Dr. Carl Fox					
<b>Dean/Director Priority</b> <i>(please circle one)</i> :    x Very High    High    Medium    Low    Very Low					
<b>Executive/VP</b> <i>(please print)</i>		<b>Signatures</b> <i>(required)</i>		<b>Date</b>	
<b>Dr. Martha Potvin</b>					
<b>Executive/VP Priority</b> <i>(please circle one)</i> :    Very High    High    Medium    Low    Very Low					