

Team 2: Integrating the Processes of Discovery and Learning

Executive Summary

Submitted by Co-Chairs Tricia Kiley and Bill Reese

Through the support of state, federal, and private funding and the extraordinary efforts of faculty, staff and students, the University of Wisconsin-Madison continues to sustain a world-class reputation. Our university ranks second in the country in overall research expenditures in a recent report by the National Science Foundation and eighth among public institutions in the annual rankings by U.S. News and World Report's 2008 edition of America's Best Colleges. This community of excellence has created a learning environment to inspire the quest of new knowledge, either as undergraduate, graduate or professional student learners or by making new discoveries through research, scholarly activities, or other out of classroom experiences. Our excellence in research has also allowed us to integrate our research approaches into our teaching, which enables us to enrich the learning experiences of our students in a manner only possible at a research university. The dissemination of this knowledge benefits our State by providing an educated citizenry, a trained workforce, new or expanded businesses, and by catalyzing additional discoveries and technologies outside the university, which improve the lives and the economic well being of the citizens of Wisconsin, and exemplify our historic embrace of the Wisconsin Idea. Our goal over the next ten years is to do everything possible to maintain this excellence and continue our tradition of integrating discovery and learning. In that spirit, we outline both our strengths and challenges and offer recommendations to sustain and strengthen those traditions. We present here 4 visions to reach this goal.

Vision 1. Ensure a world-class research and teaching university in a time of limited resources.

Our commitment to teaching and the discovery of new knowledge through research and scholarly activities extends across the university and is reflected in our national rankings in all divisions: Arts and Humanities, Physical Sciences, Biological Sciences, and Social Studies. Yet academic and scholarly excellence requires continual attention to acquiring new resources (both public and private), new facilities, and new personnel. In addition, to remain competitive nationally, we must provide an infrastructure and environment that encourages and rewards faculty, staff and students for their dedication and achievements. Because federal funding for research has not kept pace with inflation for the past several years, a major funding stream that supports our outstanding research activities is vulnerable. The percentage of the state tax component to the university budget has also been slowly declining, adding further uncertainty to our ability to remain competitive through the next ten years. The Arts and the Humanities and Social Studies are particularly susceptible in such times, because there are less financial resources available to buffer against economic uncertainties or pressures. Despite these financial challenges, our priority is to ensure that our undergraduate, graduate and professional students reap the benefits of first-class instruction at a world-class institution, where research and teaching, discovery and learning, continue to be mutually reinforcing endeavors. We also

want to maintain a culture that embraces the tenets of the Wisconsin idea to bring the advances from the university to the state of Wisconsin. Our challenge for the next ten years is to acquire the resources to maintain academic and research excellence throughout the university and not allow any of the major pillars of academic scholarship to weaken.

We thus recommend to:

- reaffirm to our citizens and legislators the benefits resulting from support of all scholarly activities at the University of Wisconsin-Madison
- strategically fund raise for the Arts and Humanities, Social Studies and Social Sciences for a building to house and establish the Wisconsin Institute for the Humanities and Society. This institute would coordinate, and concentrate existing programs and efforts that are central to the well being of the state of Wisconsin. Such groups are now scattered across campus and include but are not limited to the current Center for the Humanities, the Institute for Research in the Humanities, the Center for the Study of Upper Midwestern Cultures, and the proposed Wisconsin Alliance for Global Solutions. By housing them in a new building, this would strengthen our scholarship in this area, and possibly create new avenues for obtaining external funding.
- support continuing efforts to fund raise to provide resources to implement the master plan for new facilities on the east end of campus.
- provide market level compensation for faculty and staff to both recruit and retain outstanding educators
- identify and emulate best practices in research and teaching, for the benefit of undergraduate, graduate, and professional students alike

Vision 2. Promote, Foster and Support Interdisciplinary Research

The culture of collaboration and interdisciplinary work has been a vital part of our academic excellence and this synergy must be rewarded and supported. Our institution has a long tradition of faculty, staff and students interacting across disciplines and in 1998 a “cluster hire” program for hiring faculty whose research was interdisciplinary was created. The interdisciplinary interactions by these faculty as well as those with traditional departmental affiliations have enhanced our research and scholarly activities as well as provided student learners the opportunity for interdisciplinary course work. While the cluster hire program and the work produced by interdisciplinary faculty are of exceptional quality, the institutional infrastructure needs to evolve to maximize the interdisciplinary facet of their work. For example, some cluster hire program faculty report that to achieve tenure, a traditional departmental model was easier to follow. Our investment in interdisciplinary faculty has also had a positive role in encouraging collaboration and formation of interdisciplinary research programs, e.g. the Bacter Institute www.bacter.wisc.edu/. Yet, we do not yet have an administrative infrastructure to guide integration of interdisciplinary work and grants into the traditional funding mechanisms of departments.

We thus recommend to:

- enhance interdisciplinary research and programs by increasing resources that sustain interdisciplinary endeavors, including 1) recruiting new faculty through

- the cluster hire program with interdisciplinary competence, 2) funding for joint ventures between departments and interdisciplinary units, 3) providing access to common space for research and creative productions, and 4) informational technologies that enable storing, archiving, and sharing of digital materials for researchers in all campus units
- help ensure the success of junior interdisciplinary faculty by 1) improving the mentoring of interdisciplinary junior faculty, especially those with split appointments, 2) continuing to develop appropriately flexible standards to be used by departments, interdisciplinary units, and divisional committees for the equitable evaluation of interdisciplinary research and creative work; 3) amend current divisional committee eligibility guidelines to allow membership of faculty with a minor appointment in a department that is already represented on the committee.
 - enhance research initiatives and collaborations by 1) increasing the de minimis in effort reporting to encourage exploratory research between funded researchers on projects not yet funded and 2) developing an equitable system for indirect cost sharing that encourages grant-funded interdisciplinary projects.
 - establish campus-wide procedures and policies to increase our success at obtaining and completing large, interdisciplinary research or scholarly programs
 - enhance interdisciplinary educational opportunities that support the creation of cutting edge courses which do not fit into traditional departmental or college curricula.
 - enhance the public visibility of interdisciplinary work by encouraging and supporting the presentation of interdisciplinary research in publicly accessible formats, especially in cases where such formats constitute an appropriate alternative to conventional academic publications.

Vision 3. Increase Our Competitiveness in Graduate Education And Research.

Graduate students are critical to the research and teaching missions of the university and epitomize the importance of integration of learning and discovery in education. As a campus, we are enormously proud of the contributions of our graduate students. Our graduate programs are routinely ranked within the top 25 in the country (many are in the top 10-15) and the campus is generally recognized as leaders in graduate education. In addition, ~ 25% of our Ph.D. and 35% of our M.S. students remain in Wisconsin after graduation, further contributing to our state's economy and economic development. Thus, we place high value on training and mentoring graduate students. Yet, the pressures of flat state support and extramural federal funding, combined with the increased costs associated with supporting graduate students as research or teaching assistants, threaten to reduce the number of graduate students that can be supported from grants, fellowships, gifts or departmental funds, jeopardizing our research and teaching missions. Graduate student support costs include the stipend to support the teaching or research activities, fringe benefits to pay for health insurance, fees, etc. and a tuition remission surcharge to recover tuition costs for research or project assistants; all three components have increased at rates well-over inflation over the last ten years except for teaching assistant stipends, which have remained relatively flat. As leaders in graduate education, we also recognize that while the number of minority students obtaining M.S.

and Ph.D. degrees at UW-Madison has remained relatively steady over the past 10 years, the numbers do not yet reflect the diversity of our state and the nation, limiting our ability to capitalize on changing demographics. Finally, integrating the training of our graduate students into a rapidly changing global landscape is a constant challenge. Mentoring and professional development skills require continual evaluation to ensure the training of outstanding graduate students and capitalize on their creative and intellectual potential.

Our recommendations are to:

- solve the graduate student funding problem by evaluating the possible solutions put forth by campus or college task forces that range from 1) identifying new sources of support to offer competitive graduate student stipend packages, 2) reducing the tuition remission surcharge by following the recommendations of the Tuition Remission Task Force, to 3) reducing the cost of tuition to trainees and fellows by pursuing in-state tuition resident status. We recognize that each solution requires new funding and that each of these potential actions may impact the ability to implement others.
- examine how campus administration, including the Graduate School, can improve their decision making and communication of policies that affect funding of graduate students so that faculty and departments can engage in a dialog with campus on the impact of funding decisions to our research, teaching and outreach missions
- increase the diversity of our graduate student population by 1) reviewing the effectiveness of existing admissions, recruitment and retention programs, 2) increasing the pipeline of qualified Ph.D. students by developing new partnerships with M.S. programs on and off campus, sustaining our partnerships with colleges and universities that have a large underrepresented student population, and supporting summer research programs that are targeted to underrepresented students, 3) support, and expand, department-based best practices to recruit and retain underrepresented graduate students, 4) support faculty-initiated programs to recruit and retain underrepresented students
- advance best practices for graduate student mentoring and professional development by 1) continuing to provide students with opportunities for professional development, 2) creating a culture where graduate students are encouraged to acquire these skills, 3) developing a workshop and materials to improve faculty-mentoring skills, 4) establishing a requirement that all graduate programs develop an advising and orientation program for incoming students as well as initiatives to proactively monitor and mentor students development on a regular basis.

Vision 4. Advance and Articulate the *Wisconsin Experience* for Undergraduate Education.

UW-Madison continues to provide exceptional educational experiences for its undergraduate students both within and beyond the classroom, resulting in our students graduating into exceptional leadership roles. In a state that is relatively sparsely populated, largely rural, and with a low percentage of its population possessing college degrees, we have created a university that graduates exceptional national leaders: More

Peace Corps and Teach for America volunteers are UW-Madison graduates than almost any other university in the country. More leaders of major corporations have graduated from UW-Madison than any other university in the country. We are among the top producers of faculty members who teach at research-intensive institutions around the world. Finally, many local, state, and national elected and appointed officials are our graduates. The goal of combining discovery and learning rests on helping students find ways to connect their living and learning experiences in both formal and informal learning environments. This combination of learning will constitute students' "Wisconsin Experience"—which makes getting an education at UW-Madison unique and meaningful.

To this end, our recommendations are to:

- endorse campus-wide liberal education goals (e.g., LEAP) of learning at our research university, and strengthen the alignment of undergraduate education to these goals
- reaffirm academic excellence for all undergraduates, ensured by strengthening the comprehensive nature of UW-Madison
- advance our commitment to academic excellence and the Wisconsin Idea by cultivating, nurturing and offering high quality, integrative experiences that blend in- and out-of-class learning
- develop valid and eclectic ways to assess the effectiveness of our efforts to enhance learning for all undergraduates