

III. Institutional Priorities: Duluth

Academic Excellence – Faculty, Reputation

Investing in Best Departments

- **Campus-wide faculty position pool:** Open faculty lines are returned to the vice chancellor for academic administration; positions are returned to collegiate units to enhance high quality programs, to develop high priority instructional areas, and to meet departmental needs based on student demand.

Investments to Strengthen Interdisciplinary and Legislative Initiatives

- **Design Initiative:** Funding is provided to the Visualization and Digital Imaging Laboratory to provide hardware and software to support faculty media research and presentations.
- **State Agricultural Special – Freshwater:** UMD continues to emphasize freshwater research and teaching with additional investment in freshwater studies.

Investments in Curriculum

- **Departments and programs:** Create new programs, majors, minors, or areas of study to match UMD strengths with regional and statewide need.
- **Freshman seminar:** UMD provides funding to increase number of freshman seminar sections.
- **Study abroad:** Support scholarships and staff hires under the University of Minnesota/Bush Foundation study abroad initiative.

Investments in Research/Creative Activity

- **Research support:** UMD continues to provide funding and services to support faculty research/creative activity.
- **Investments in technology**
 - **Tech Camp:** Continue to support Information Technology Systems and Services' Tech Camp, a one-week workshop for faculty who wish to improve their technology skills to enhance teaching and learning in their courses. Faculty who participate get a laptop computer and advanced software. Twenty faculty participated in FY02.
 - **Handheld Computer Initiative:** In FY02, the College of Science and Engineering initiated a handheld wireless computer project to improve teaching and learning. Ten faculty were engaged in curriculum modification for courses using the handheld computer. An additional 50 faculty were provided Compaq iPAQ computers.

Measuring Results

- For FY02, faculty position pool reallocation of lines resulted in new tenure track positions in education, German studies, media studies, and graphic design. In addition, tenure-track positions were added to management studies and biology to meet student demand. A total of 18 new tenure-track faculty were hired.
- Two new faculty were hired in FY02 to enhance UMD's programs in information science technology, one in computer science and one in finance, management, and information systems.

- The theatre department again gained national honors, as the play “The Movie Game” was one of five from across the nation selected for the American College Theatre Festival at the Kennedy Performing Arts Center in Washington, DC. Numerous other awards were gained by UMD students in the competition, including the Mark Twain Comic Playwriting Award.
- Laboratory facilities and startup funding of \$150,000 was provided to freshwater research.
- A major in mechanical engineering, a major in German studies, and a minor in journalism were added.
- 20 faculty, staff, and administrators were involved in study abroad curriculum evaluation and development.
- \$110,000 was provided to the Large Lakes Observatory to facilitate research on the Blue Heron, UMD’s modern Great lakes research vessel.
- \$100,000 of matching money was provided to the Northland Advanced Transportation Systems Research Laboratories to facilitate transportation research. A new research facility was completed on I-35 south of Cloquet, Minnesota.
- Research proposals submitted to outside agencies totaled \$42,129,393; 192, totaling \$14,214,787, were funded. For ongoing projects, research grants and contracts total \$33,189,652. Gerald Niemi, director of the Natural Resources Research Institute Center for Water and the Environment, received \$6 million from the Environmental Protection Agency to establish a water quality baseline and indications for the Great Lakes watershed.

Students

Investments to Strengthen the Undergraduate Experience

- **Advising:** Continue development of the electronic portfolio as many departments integrate its use into everyday advising practice. The Advisement Coordination Center developed a network among advising programs across the campus and has developed advising models and collegiate advising initiatives. The Center continues to serve as UMD’s advisory coordination site for delivery of improved services. An electronic “academic planner” is being developed.
- **Undergraduate Research Opportunities Program (UROP):** Promote opportunities for undergraduate research and creative activity and invest an additional \$75,000 in the program.
- **Introduction to College Learning (ICL):** One-credit course provides academic, personal, and social enrichment to first-year students; focuses on technology, campus resources, study skills, electronic portfolio, values and ethics, learning styles, relationship and conflict management.
- **Laptop Initiative:** A total of 249 accounting, education-early childhood, theatre-design emphasis, and journalism students are provided laptops to use in their major courses, which have been modified to take advantage of the laptop, both in the classroom and laboratory and at home or in the dorm.
- **Wireless Computer Initiative:** 250 first year students in electrical and computer engineering, chemical engineering, industrial engineering, and computer science participated in the iPAQ handheld computer program in FY02. These students were required to purchase a computer over a four-semester period. Eight classrooms and numerous buildings and common areas, such as dorm lounges, dining halls, etc., have been equipped to provide wireless access.
- **American Indian Student Initiatives:** Provide support for programs to meet the needs of American Indian students. Research has shown that American Indian teacher candidates profit by attending colleges in a supportive American Indian environment like the tribal college.

The curriculum is modified to include American Indian culture and values. A cooperative program in partnership with Fond du Lac Tribal and Community College (FDLTCC) allows the last two years of the major in elementary education to be completed at FDLTCC. Students are enrolled at UMD for degree purposes but courses are offered at FDLTCC.

- **Program and Curriculum Initiatives:** Provide funding to new programs to meet student needs.

Measuring Results

- Chancellor Martin received the National Academic Advising Association (NACADA) Pacesetter Advising Award for the UMD advising initiative.
- Twelve student affairs staff and the director of the Advisement Coordination Center attended the NACADA summer institute in Colorado Springs, Colorado in July 2002. The advising teams worked on campus-wide designs for applying and integrating best practices in a division.
- In an FY02 survey, seniors rated the overall quality of advising provided to them as 2.6 on a seven-point scale, where 1 equaled "excellent," 2 "very good," 3 "good," etc.; 76 percent of respondents rated the overall quality of advising as excellent, very good, or good.
- Tom Brown, national consultant on advising, presented a one-day workshop in August 2002 for senior administrators (chancellor, vice chancellors, deans). He also worked with academic and support staff, including housing staff, on issues related to improvement of advising.
- Funding was provided for 104 UROP students and for 15 student presenters at the National Conference on Undergraduate Research; an additional 520 students participated in undergraduate research or independent study. In a report entitled "Academic Excellence: The Source Book," authored by The Research Corporation, UMD was ranked as one of the top institutions in the U.S. for research opportunities for math and science undergraduate students.
- 815 students enrolled in 32 sections of ICL in FY02. Instruction on how to utilize the electronic portfolio was added to the curriculum.
- Classroom technology upgrades for teaching and learning have been accomplished. All (68) general purpose classrooms have Ethernet connections for instructional use. Approximately 60 percent of the classrooms have a built in computer/video projector. It is anticipated that by the end of fall semester 2002 this will increase to 75 percent. Four classrooms have hard-wired Ethernet ports for student use and 12 have wireless connectivity. General purpose classrooms are centrally scheduled; faculty request classroom technology to fit teaching style. Additional portable computer and projection equipment is owned by collegiate units; equipment can also be checked out from the Information Technology Systems and Services library.
- 28 American Indian educators from across the northland received their Masters of Education degree in May 2002.
- A learning communities program was developed for undecided NHS in the College of Liberal Arts.
- Funding was made available to develop a financial markets laboratory for undergraduate finance majors. A classroom was remodeled and equipped with state-of-the-art financial markets hardware and software. Students invest real money; Joe Artim, previously a large fund financial manager, coordinates the study activity. 16 undergraduate students in finance were the first class to take advantage of the laboratory.
- The School of Business and Economics began offering its Masters of Business Administration degree on-site at Rochester. Market evaluation was carried out in partnership with University

of Minnesota Rochester. Curriculum was modified to fit a weekend delivery format; students can complete the program in 2-1/2 years.

Engagement: Access and Outreach

Expanding Access: Educational Programs

- **Center for Economic Education (teaching and learning initiative)**
 - Improve the quality and quantity of economic education and economic literacy with a focus on preK-12 teachers.
 - Provide credit and non-credit workshops and seminars for teachers, curriculum supervisors, administrators.
- **Arrowhead Preparing Teachers for Tomorrow's Technology Today (APT3), College of Education and Human Service Professions (CEHSP)**
 - Faculty, teachers, and students work together in "collaboratories" learning and applying technology.
 - Used in preK-12 classrooms for teaching and learning with a diversity and rural focus on addressing the digital divide.
- **Chester Park Lab School, CEHSP and SFA**
 - Coordinate and place teacher education music students
 - CEHSP students from physical education, early childhood education, elementary education, teaching visual arts, and educational technology programs actively engage in teaching and learning with Chester Park Lab School students
 - Students completing practicum student teaching, UROP, and APT3 projects work collaboratively with Chester Park teachers and parents
- **Continuing Education (CE)**
 - Provide college-level courses in local high schools through the College in the Schools program; schools maintain funding base and students receive college credit.
 - Degree and job-skill oriented evening programs provide opportunity for non-traditional students to prepare for new careers.
 - Coordinate Masters of Education (M.Ed.), Masters of Liberal Studies (MLS), and Masters of Science in Engineering Management (MSEM) programs
 - Outreach to senior citizens through University for Seniors
 - Cohorts run in Duluth, International Falls, and at UMM. MSEM reaches out to working engineers across the state.
- **Social Work Distance Education Masters Program, CEHSP:** Provide an opportunity for American Indian professionals to obtain a masters degree in social work.
- **Fond du Lac Tribal and Community College Teacher Education Program:** Provide an opportunity for American Indian students to obtain an education degree.
- **SFA Kindermusik, Kinderkeys, and Suzuki Programs**
 - Provide lessons and performance experience to young children.
 - 300 elementary students are enrolled in music programs and participate in performances each year.

Expanding Outreach: Regional and Statewide Service and Community Engagement

- **Natural Resources Research Institute (NRRI):**
 - Mission: To foster economic development of Minnesota's natural resources in an environmentally sound manner to promote private sector employment
 - Provide near-term economic development efforts that contribute to private sector job creation and retention
 - Focus applied research and development on natural resources to develop products, processes, and services
 - Expand natural resources research to provide a knowledge base for sound environmental and economic decisions
- **Bureau of Business and Economic Research (BBER), School of Business and Economics**
 - Provide research on business and economic issues in northeastern Minnesota and statewide
 - Serve as a data center, respond to inquiries for data
 - Provide a training ground for students interested in hands-on research experience
 - Provide the UMD community with economic information
- **Minnesota Sea Grant Program**
 - Work with individuals and communities to maintain and enhance the environment and economies along Lake Superior and inland waters
 - Provide outreach services to region and state

Measuring Results

- **Center for Economic Development (CED)**
 - Assisted Iron Range businesses to grow and improve their profits.
 - Entered into an agreement with Cook County to assist small businesses in the county.
 - Through the Kaufmann Entrepreneur Internship program, provided support for student experiences in new and emerging firms.
- **Chester Park Lab School:**
 - 340 Chester Park students (the entire student body) participated in a variety of performances last year, both as the audience for UMD music offerings, and in their own winter and spring concerts and the kindergarten spring sing, which UMD students helped them prepare and present.
 - Approximately 400 Chester Park parents attended one or more of the student performances during the school year.
 - 60 UMD students—12 music majors and 48 non-music majors—worked with Chester Park students during the 2001-02 school year.
 - 28 UMD music students, including a choir, a percussion ensemble, and piano students, performed for Chester Park students.
 - 113 UMD students worked at Chester Park through the Darland Programs last year.
 - 12 UMD education students participated in Arrowhead Preparing Tomorrow's Teachers to Use Technology (APT3) collaboratories at Chester Park last year.
 - 12 UMD faculty participated in professional projects, such as APT3 collaboratories, at Chester Park last year.

- **Social Work Distance Education Masters Program (CEHSP)**
 - Utilized Title IV-E funds to partner with Bemidji State University and Hibbing Community College to offer the MSW through the Child Welfare Scholar program.
- **NRRI**
 - Leveraged \$3.8 million of State Special funds into an operating budget of \$13.8 million. In FY02, total external sales were \$600,000.
 - Minerals
 - With support from the Minnesota Department of Natural Resources, established a taconite concentrator modeling and simulation center at the Coleraine Minerals Research Laboratory.
 - Received \$720,000 in federal support to study mercury removal.
 - Continued work on iron ore and its products.
 - Investigated potential of taconite mining byproducts to be used as an aggregate in road construction.
 - Forestry/forest products
 - Under the auspices of a limited liability corporation (NaturTek), studied birch bark compounds for their antibacterial and anti-fungal properties.
 - Developed an in-place assessment method for wood structures.
 - Investigated methods by which wood products companies could remain competitive.
 - Peat/peat products
 - Studied improved and more efficient methods of peat harvesting.
 - Water and the environment
 - With funding from the EPA, studied environmental indicators for the Great Lakes Basin.
 - Continued on-going study of boreal owl ecology in Minnesota.
 - Utilized Global Positioning System for stream imaging.
 - In cooperation with the University of North Dakota, examined hydrologic fluxes and beaver pond succession.
- **BBER**
 - Continued workforce analyses in northeastern Minnesota.
 - Developed a “reader friendly” version of the document “Economic Impact of Scenic Byways.”
- **Minnesota Sea Grant Program**
 - In 2001, there were 13 professionals and four students on staff.
 - The media relations program generated 94 reporter contacts, resulting in stories that reached 13.7 million people.
 - The Web site received 5 million hits from 43,000 people in 100 different countries.
 - The publication center filled 1,500 orders.

Strengthening the University Community: Human Resources

Enhancing Leadership and Managerial Effectiveness

- **Training:** 17 personal/professional development workshops and nine supervisory training workshops were held, with a total of 248 participants.

- **Orientation/Employee Benefits:** 41 orientation sessions were attended by over 75 percent of new hires. 16 employee benefits ITV workshops were attended by 896 participants.
- **Outstanding Service Awards:** A number of staff are recognized each year for their outstanding contributions to the mission of their departments and UMD.
- **Outstanding Adviser Awards:** Five faculty members each year are given the Outstanding Adviser Award. Each award recipient is given \$500 and an additional \$500 goes to his/her department to support its advising program.

Supporting and Developing a Diverse Faculty and Staff as Teachers and Researchers

- **Technology Camp:** Faculty participate in a one-week camp, resulting in enriched curriculum delivery (Web pages, chat rooms, video streaming, etc.) for UMD courses. Over a four-year period, over 25 percent of UMD faculty (120) participated in Tech Camp. Twenty of these faculty also completed Advanced Tech Camp to further their skills. The Technophytes Cohort, funded by the Bush Foundation, began in 2001 and is aimed at technological “late bloomers.” Twenty faculty participated in 2001-02 and 19 are participating in 2002-03.
- **Chancellor’s Award for Distinguished Research:** Each year, UMD selects one faculty member to receive this award and \$1,000 prize, and hosts a community-wide research lecture and reception.

Recruiting and Retaining a Diverse Faculty and Staff

- **Target of Opportunity (TOP) Funding:** Funding is used to increase the number of faculty of color. Two FTE faculty were hired using TOP funds and two were hired using Bridge funds.
- **Chancellor’s Diversity Initiative:** Approximately \$35,000 is invested annually in this program, which enables UMD to recruit a more diverse faculty and student body. During the past year, three visiting scholars gave residencies and lectures, and worked with students and faculty individually.