

# Tech Topics

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Michigan Tech's Faculty-Staff Newsletter

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## Senate OKs Procedures for Financial Emergencies

With minor alternations, the University Senate passed two proposals Jan. 16 that set up procedures for dealing with a "financial crisis"—problems that need to be addressed within one to six weeks—and "financial stress"—less urgent problems that can be addressed over a longer period, up to a year.

The measures will be presented to the Board of Control, which asked to see the procedures when they were developed.

Senate President **Robert Keen**, who has been working on the measures since 1997 as chair of an ad hoc senate committee, noted that the appearance of the proposals at a time of tight budgets is coincidental; no crisis exists.

MTU administrators asked the senate in 1993 to develop a proposal that sets up procedures to follow in the event of financial emergencies.

Under the Financial Crisis proposal, the University president can determine a state of financial emergency may exist. Then, he or she calls the Financial Emergency Committee (senate officers and some members of the Senate Finance Committee) into session. They review the issue and report their findings to the Board of Control and the president.

The president and other MTU officers also make a report to the University Senate, and the senate may report its recommendations to the president and the Board of Control. The Board has the power to declare a state of financial crisis.

If a crisis is declared, the Executive Budget Council (administrators at the vice president level and two non-voting senate liaisons) prepares guidelines for reducing budgets. Vice presidents, vice provosts, deans and directors will generate plans to reduce their budgets with input from faculty, staff and students.

These plans will be submitted to the provost and then, if the plans meet the Executive Budget Council guidelines, will be forwarded to the Reconfiguration Committee (the Executive Budget Council, senate offi-

*Continued on page 6*

*If you can't say anything good about someone, sit right here by me.*

—ALICE ROOSEVELT LONGWORTH

## DOING THINGS BETTER STAFF, ADMINISTRATORS FORM PLANNING GROUP

More than 50 staff and administrators have taken on the task of improving Michigan Tech's administrative systems, processes and procedures.

The Cross-Functional Planning Group began its work at a Dec. 17–18 retreat. Its initial focus will be information: who gathers it, who needs it, what does it mean and how to get it.

"Many departments need and share common services and data," said **Becky Christianson** (Human Resources), assistant director for professional development and quality improvement.

At the retreat, participants from various departments gave presentations on the existing systems and how information is gathered, plans for updating and/or implementing additional administrative modules and new reporting technologies. Then, the group brainstormed about how to provide better service, get better information and streamline administrative processes.

"This is the beginning of a long-term relationship among departments that will ultimately reap great benefits for the University," Christianson said. "In light of the budget situation, we need to work together to be more efficient and more effective. If we don't know what other people are doing, that can't happen."

## United Way Campus Campaign Raises Nearly \$39K

*By Ted Soldan, United Way Campus Campaign chair*

The Michigan Tech 2001 United Way Campaign is officially over. Once again, MTU stepped up to the plate and showed our community how much we care. While not quite achieving our goal of \$40,000, 365 of us gave \$38,806, thanks in large part to departmental solicitors, who encouraged the excellent turnout again this year.



Charitable organizations had a tough time at the end of last year. Many people donated to Sept. 11-related charities, and felt they couldn't give as much as before. MTU's solicitors really got the word out again, as the results clearly show.

Thanks to all who helped with this year's campaign, and especially to everyone that donated their hard-earned money to help keep our local charitable organizations strong.

## Tried Mail Order Drugs? What Do You Think?

Have you used the new mail order pharmaceutical benefit through Merck-Medco? If you have, the benefits office would like to hear from you. Please call me at 487-2517, or email mawilcox@mtu.edu, and tell me about your experience with this new benefit.

## MTU v. BTU

# The Do's and Don'ts of Personal Electric Heaters

(Note: This is the fourth in a series of articles on cutting energy costs at MTU.)

Electric heaters, the kind we keep under our desks, are typically 1500 watts. "It has come to my attention that there are hundreds of these devices across campus," said **Dave Taivalkoski**, energy manager. "If 300 such units are left on 24 hours a day for 3 months, the cost to MTU is \$58,000."

Not only are they expensive to operate, electric heaters also pose a fire hazard if left unattended. Some have been found operating in unoccupied areas over night or over the weekend.

You should only use an electric heater if it's the cheapest way to stay warm, and they should never be left unattended.

For instance, it might be cheaper for a small number of people working on a weekend to run an electric heater than to run an entire building system. In some problem areas, 100 watt electric radiant heating floor mats may be a more effective and safer solution. Please e-mail Taivalkoski at detaival@mtu.edu if you believe your area should have a heating floor mat or an electric heater. Explain your situation and include about how often you need the additional heat. This will help Facilities determine the best strategy for your building or area.

Because electric heaters are such energy hogs, employees should only turn them on in unusual circumstances and get an OK in advance to use them. If their overuse becomes a problem, Facilities may have to consider removing electric heaters from work areas, said **Bill Blumhardt**, director of facilities management.

## Weight Watchers Meet Monday

Weight Watchers meet on Monday, Jan. 21, from noon to 1 p.m. in Memorial Union Ballroom B2,. New members are welcome. For more information, call 487-2517.

# MichiganTech

Bill Curnow, executive director, University Relations  
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Tech Topics Web site: [www.mtu.edu/level3/ttopics.html](http://www.mtu.edu/level3/ttopics.html)

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- By e-mail to [ttopics@mtu.edu](mailto:ttopics@mtu.edu)
- By campus mail, send typed copies to Tech Topics, University Relations.

Each week, the deadline for submitting information is **Friday at 5:00 p.m.** for publication the following Friday.

## Half Empty or Half Full?

Center for Teaching, Learning,  
and Faculty Development



By William Kennedy, director

After years of watching the evolution of a complex process, you can't help but develop a

sort of second sense about the types of indicators that might provide insight into its state of health. I would compare it to the nagging state of uneasiness that comes when you notice a new noise while driving your car. You find your senses heightened and begin to look closely for additional signs that something might be wrong. You feel for vibrations, scan the gauges more often and sniff the air for unusual smells. Inevitably, you hear more unusual new sounds and notice many things that had gone beyond your notice.

Auto mechanics and medical doctors know that reports of bumps or lumps may eventually prompt a visit for a checkup, but they usually do not provide the sort of evidence that allows for an accurate diagnosis of the problem nor a remedy for the ailment. Doctors and mechanics commonly utilize protocols to sequentially rule out successively less likely causes which might account for the symptoms alluded to by the intuitions or anecdotal observations of the consumer.

Diagnosing problems in a complex system is a very difficult business. Often, problems show up only intermittently. Am I the only one who has experienced the remarkable remission of toothache pain while sitting in the dentist's office? Very commonly, a given symptom might arise not from a single cause but from a peculiar combination of events conspiring together to produce the noted effect. Diagnosticians must, therefore, take a "let's fix one thing at a time and then see where we are" approach, often to the great chagrin and continued anxiety of the driver or the patient. Another concurrent component of diagnosing a problem involves seeking a proximate cause or precipitating factor. When the doctor asks you if you have changed your diet or your job or anything else about your routine, she is likely trying to ferret out just such a factor.

## In the News

**David Nelson**, chair of biomedical engineering, and Professor Emeritus **Richard Heckel** (MSE) are cited in an article on The Whitaker Foundation's Web site, "Biomedical Engineering Top Choice for Women." The article notes that Michigan Tech led the nation last year with the highest percentage of women enrolled in biomedical engineering, about 60 percent. Nelson estimates that this year, around 62 percent of the program's 178 students are female.

The article is on the foundation's Web site at [www.whitaker.org/news/womenBME.html](http://www.whitaker.org/news/womenBME.html) MTU got a mention in the Nov. 29 Detroit Free Press in Jeff Bennett's article, "Researchers Turn Ideas into Cash."

Michigan Tech's biomedical engineering design project was cited in an article in the June 2001 edition of SWE, the magazine for the Society of Women Engineers, "Assistive Technologies: Improving Lives at Home, Work and Recreation."

Not knowing the actual cause of a problem seldom prevents human beings from self-diagnosing the most likely (and least devastating) cause of this or that. The multi-billion dollar patent medicine trade depends on our willingness to self-diagnosis and treat what ails us based on the ever-changing chimera of our symptoms. The prevailing law of human nature almost mandates that humans come up with a snappy answer to most problems, even if that answer is dead wrong. I suppose that's where superstitions come into play. We derive some peculiar comfort from blindly generalizing that we probably caught our cold from that guy who was sneezing on the airplane or that the reason we're having trouble reading the fine print these days is that they're making the fine print finer.

Given these tendencies and complications, imagine how difficult it is to diagnose a problem like a declining rate of retention of first-year students into their second year of study in a complex system like a research university. Just this week, I read several e-mail messages from faculty members actually teaching our first-year students. They heaped abundant and detailed praise on these students for their intelligence, energy, creativity and willingness to go the extra mile. During the very same time period, I spoke with several other faculty members who expressed their increasing frustrations with teaching our first-year students, many of whom they characterized as being unwilling and/or unable to do the work required of them.

I didn't sleep well last night and found myself watching the overnight news. Every other commercial was for some miracle exercise machine, weight loss product or prescription medication that claimed to have the capacity to turn a troubled and anxious life into one more like life in the good old days. All seemed too good to be true. Getting to the heart of the retention challenges we face will likely require some clear thinking, gathering of factual evidence, a willingness to listen and a refusal to look for or accept silver bullet or magic pill solutions.

## Computer Science Prof Visits Latvia

By Jennifer Drewyor

**John Lowther**, an associate professor of computer science, was among a handful of foreign visitors invited to speak at the Second World Congress of Latvian Scientists.

Lowther, whose wife has relatives living in this Latvia, visited its capital, Riga, to meet with 600 other scientists and students. The principal aim of the Second Congress was to increase the knowledge of the Latvian public about scientific, technological and higher education developments in Latvia and the world at large.

"Past economic difficulties and its tragic history created many problems for Latvia," Lowther said. "However, Latvia is slowly and carefully moving toward a comprehensive and modern education system that supports and encourages science and technology."

Lowther gave a presentation in both Latvian and English about computer science curricula at technology-oriented universities. Specifically, he described the development of Michigan Tech's computer science curriculum as the University changed from a quarter system to semesters. He also met with members of the Latvian parliament and government, scientists, engineers, teachers and students.

He gave his talk at the University of Latvia's Institute of Mathematics and Computer Science, which supports LATNET, one of the largest Internet services in the country. Graduates of the Institute include many top managers in software companies.

"Latvia looks toward the West for examples of how to create educational systems that prepare students in science, technology and engineering," Lowther said.

When Latvia was occupied and incorporated into the Soviet Union in 1940, its educational system was forced to conform to the Soviet model. Educational programs became part of a unified system that was centrally controlled by Moscow.

After the Baltic states regained their independence in the early 1990s, universities began to train students to work at high-tech and engineering companies.

"Many younger scientists and engineers are starting their careers in industry and education. They are starting to modernize and expand the Latvian economy," Lowther said, adding, "Latvians respect teachers and scientists and encourage their children to achieve all the education they can."

## Community Programs Start

MTU Community Programs began Jan. 13. Classes include Aerobics, Gymnastics, Aikido, Tennis, Learn to Skate, Aqua Fit, Swimming, Scuba, Adult Dance and Yoga. Nordic Skiing is being offered for the first time. For more information call 487-2975, 487-2073 or [communityprograms@mtu.edu](mailto:communityprograms@mtu.edu)

## Longtime MTU Friend Ken Rowe Dies

Former Board of Control member **Kenneth Rowe**, whose involvement with Michigan Tech spanned five decades, died Jan. 10 of a stroke at Keweenaw Memorial Medical Center in Laurium.

He was the featured speaker at Midyear Commencement, held Dec. 15. In a press conference that morning, Rowe talked about how pleased he was to have been selected to give the speech.

"I'm so grateful that he had the opportunity to give it and that we had the opportunity to hear him; it was a great speech," Special Events Coordinator **Marsha Rosenberg** said, adding, "We always enjoyed working him. He was a very gracious man."

President **Curt Tompkins** said Rowe "was absolutely effective in his job."

"He was extraordinarily involved, because we asked him to, but also when we didn't," Tompkins said. "He was always available to people who wanted to talk to him on campus."

Rowe served on the Board of Control from January 1993 until April 2000. He was vice chair in 1995-96 and chair in 1996-97.

"He was always willing to go the extra mile," said **Dale Tahtinen**, secretary to the Board and vice president for governmental relations. "There aren't enough superlatives to describe him."

A resident and native of Calumet, Rowe began his college career at Michigan Tech before graduating from the University of Michigan in 1955 with a doctor of medicine degree. After spending two years in the U.S. Army Medical Corps, he returned to the Keweenaw in 1959. He worked seven years in private practice before beginning a long and distinguished career in public health.

After earning a master of public health degree in 1967 from the University of Minnesota, he became health officer and medical director of the Western U.P. Health

Department, a position he held until his retirement in 1993. During that time, he also directed the Dickinson-Iron District Health Department for 17 years and served one year as acting deputy director and chief medical executive of the Michigan Department of Public Health.

After stepping down from his post as medical director, he coordinated the state's community health assessment of the U.P. from 1994 to 1997.

Rowe was active in MTU athletics. He volunteered as team physician from 1976 to 1993 and was a member of the Athletic Council for 12 years. He was a member of the Huskies Club and the MTU Sports Hall of Fame.

He and wife Margaret loyally attended numerous college and high school basketball, football, hockey and volleyball games and other sporting events. Huskies fans remember him as a longtime volunteer team doctor, who also helped coach area youth hockey teams. As a clarinetist, he also was one of three honorary members of the Pep Band.

"He was at every game," said Athletic Director **Rick Yeo**. "He was a great fan, too."

A video clip containing Rowe's commencement address is now posted on the Web at [www.admin.mtu.edu/urel/breaking/2001/commencement.html](http://www.admin.mtu.edu/urel/breaking/2001/commencement.html).

Rowe is survived by his wife, Margaret; one daughter, Karen (Craig) Boggio of Jackson, Wis.; four sons, Vern (Lana) Rowe of Rapid City; Steven (Stephanie) Rowe of Laurium; David (Mary) Rowe of Golden, Colo.; and Thomas (Laura) Rowe of Wisconsin Rapids, Wis; 10 grandchildren; and numerous nieces, nephews and cousins.

The family has established the Dr. Ken Rowe Memorial Fund to benefit the community. Donations may be dropped off at any of the Superior National Banks in the area.

## Fred Winters: Forever a Favorite at Michigan Tech

*Submitted by University Cultural Enrichment*

Every year the MTU Student Entertainment Board has the same discussion: whether or not to bring Tech's favorite hypnotist, Fred Winters, back again. The answer for the last few years has been a resounding yes. Last year, there were two sold-out shows. This year, SEB is once again offering shows at 7 p.m. and at 9:30 p.m. on Friday, Jan. 18, at the Rozsa Center. Tickets are available from Rozsa Center Ticketing Services (487-3200, Tuesday-Friday, 10 a.m.-5 p.m.) or you can purchase tickets online at [www.tickets.mtu.edu](http://www.tickets.mtu.edu).

Although the audience is usually predominantly students, the show has lots of appeal for the over-20 crowd. There's no doubt that hypnotism is fascinating, and watching a master like Fred Winters is a real experience. There's never any lack of enthusiastic volunteers to go up on stage and strut their stuff while under hypnosis, and they are often joined by others who become hypnotized in the audience. However, don't think that you'll become automatically hypnotized if you're in the audience; it only works if you want it to.

Fred always keeps the show fresh by introducing new segments and always watches his subjects carefully, making sure that they don't harm themselves in their enthusiasm to follow his often hilarious instructions. The magic of this fun show is that the volunteers act out these parts like real comedians, as if what they're doing is a perfectly normal thing to do, and they don't seem to notice that there are 500 people watching them do it. And if you doubt that it's all real, talk to someone who's been hypnotized after the show.

For more information, contact University Cultural Enrichment (487-2844).

## MLK Observances Set for Next Week

Members of the Michigan Tech community are invited to participate in a series of events next week to honor the legacy of Martin Luther King Jr. The theme of this year's celebration is "Forever We Stand in Unity."

On Sunday, Jan. 20, the Dr. Martin Luther King, Jr. Memorial Service will be held at Portage Lake United Church at 10:45 a.m. The event is hosted by the Society of African American Men (SAAM) and features the Echoes from Heaven Gospel Choir.

On Monday, Jan. 21, classes are dismissed at noon. Also at noon, first-year student **Gary N. Kelly** will give King's "I Have a Dream" speech by the steps of the Memorial Union. Following the speech, a peace march hosted by the Native American

Association/American Indian Science and Engineering Society (AISES) will proceed from the Union to the lobby of the Rozsa Center, where a 12:30 p.m. reception with refreshments will be held. The reception is sponsored by the Black Student Association and the National Society of Black Engineers; everyone is invited.

On Wednesday, Jan. 23, a Tech Tea, "Martin Luther King Jr. from an International Perspective," will be held at 4 p.m. in the Memorial Union Red Metal Room. Refreshments will be served. The tea is sponsored by the Society of Intellectual Sisters, the African Student Organization and the Society of Hispanic Professional Engineers/Nosotros.

On Saturday, Jan. 26., the Black Student Association hosts the annual Michigan Tech Martin Luther King banquet, in the Memorial Union Ballroom. The banquet will be dedicated to the late Board of Control member Dr. **Ken Rowe**. Seating begins at 5 p.m., with dinner to be served at 5:30 p.m. The program includes presentations by Native American drummers and the Praise in Effect Gospel Choir, led by undergraduate **Kevin J. Walker**.

The keynote speaker will be Edwin Nichols, who will give the talk "Organizational Change through Cultural Competence." A clinical/industrial psychologist, Nichols is director of Nichols and Associates, Inc., an applied behavioral science firm. His clients include Fortune 500 corporations, foreign governments, government agencies and health and mental health systems. His goal is to help organizations achieve systemic congruence through what he calls cultural competence; thus assuring a competitive edge and an increased market share.

Tickets are \$10 for students, \$15 for everyone else. For more information, contact 487-2920.

## Board of Control OKs SmartZone Agreement

The Board of Control gave final approval Dec. 14 to the Michigan Tech EnterPrise SmartZone (MTEPS).

A partnership between the cities of Hancock and Houghton and Michigan Tech, the SmartZone aims to stimulate the growth of technology-based businesses and jobs in the area. It includes the area encompassed by both cities and will be allowed to capture certain state taxes for up to 15 years to use for purchasing property, establishing business incubators and other buildings, and for management and marketing.

The Michigan Economic Development Corporation has provided a \$2 million loan, to be used by MTEPS to buy the Republic Bank building in Hancock for use as incubator space for new businesses. One of the aims of the SmartZone is to create more than 1,600 jobs over the next 15 years, including 550 science and engineering jobs.

The SmartZone will also focus on commercializing research developed at Michigan Tech and retaining science and engineering graduates from the university.

"This further cements Michigan Tech's role as an economic development force in the state," said President **Curt Tompkins**. "I am particularly proud of how Houghton, Hancock and Michigan Tech have been able to work together on this important project. It is a great day for Michigan Tech, and it's a great opportunity for Tech alumni to stay in the Keweenaw after they graduate."

Under the agreement, MTEPS will build an Advanced Technology Development Center by the end of 2004 that will be used in part to house student projects in the Engineering Enterprise program. The projects put student teams to work on engineering challenges such as FutureTruck and Solar Car, as well as on real-world problems submitted by industry. Michigan Tech will provide operating funds for the facility. The facility will also serve as an incubator for new businesses. The Board added language to assure that Michigan Tech will not be responsible for building the structure.

Partnership officials say they will use Michigan Tech's strengths to attract new companies in such sectors as automotive design, high-tech manufacturing, wood products, biotechnology and information technology.

The Board also approved the 2003 Capital Outlay Budget, which allows the University to retain professional services to begin the first phase of the Center for Integrated Learning and Information Technology. Total cost of phase 1 is \$33.3 million, which includes two \$5 million gifts from alumni John Opie and Kanwal Rekhi.

The Board of Control approved the creation of two new graduate degree programs.

The PhD in Engineering Physics, the first such degree in Michigan, will prepare students for advanced jobs in industry and academia that require the application of the principles of physics to solve engineering problems.

The Professional Master of Science degree, with a concentration in an area of science or mathematics, will prepare students for professional science and technology careers in industry.

## Scholarship Recipients Say Thanks *Submitted by the Michigan Tech Fund*

The Michigan Tech Fund hosts events that allow scholarship recipients to show their gratitude to those who fund their awards. Recipients write thank-you letters, and hundreds of students attended the most recent session.

The Michigan Tech Fund puts on four of these events each year. "While we at the Fund sincerely appreciate the generosity of our scholarship donors, it's great that so many students use this opportunity to also thank their sponsors," said Eric Halonen, acting director of development. "Angela Cooke, our scholarship fund coordinator, has done an excellent job in organizing these events. There are many students who could not obtain a Michigan Tech education without the help of these sponsors."

The scholarship recipients are excited to be able to personally thank those who help finance their education. "I just wanted to express my appreciation for the generous scholarship," writes Lindsey Moritz, a first-year applied ecology student. "It is really helping me make ends meet here at Tech. "

The donors who support these students appreciate the effort as well. Walter and Joyce Rembold love receiving thank you cards. "The correspondence we get from recipients of the H. Walter and E. Joyce Rembold Endowed Scholarship gives us a partnership feeling and a renewed interest in the progress of our students," said the Rembolds. "We are looking forward to corresponding with the students and hope to learn of their accomplishments even after graduation."

For more information about scholarships, please contact Marie Ryding at 487-7266 or maryding@mtu.edu.

## 4th Thursday in History: Living in the Past

Public historian Will Shapton will share the experience of local middle school students in "living history" activities at Fort Wilkins State Park at 7 p.m. Thursday, Jan. 24, at the Keweenaw National Historical Park headquarters (corner of US-41 and Red Jacket Road in Calumet). His presentation is free and open to the public.

## “Alice’s Restaurant” Jan. 25 at Calumet Theatre

Mu Beta Psi music fraternity presents one of the most popular films of the rebellious ‘60s and ‘70s on Friday, Jan. 25, at 7:15 p.m. at the Calumet Theatre.

Anyone familiar with folk singer Arlo Guthrie’s lengthy musical account of the consequences of dumping garbage illegally—consequences which mount to hilariously ridiculous proportions including a quasi-Keystone Cops routine and a potential prison sentence—needs no introduction to “Alice’s Restaurant” and its whimsical satire. It features Guthrie himself, as well as his father, Woody Guthrie, in a cameo appearance, to make this as entertaining and funny today as it was when it originally became the hit of the early ‘70s.

Arlo and his friends romp through a series of episodes that include turning an induction center upside down, wallowing in a leisurely life in the country and defying the law at every possible turn. But it is the song that has inspired the bulk of the film, turning it into an odd blend of satire, whimsy, melodrama and social commentary, to become the funniest R-rated comedy in history.

Cost is \$3.50, reservations not necessary.

## In Print

Articles by three members of the Michigan Tech community are featured in a special double issue of “Michigan History” focusing on the Upper Peninsula (Vol. 85, No. 6, Nov.–Dec. 2001). Professor **Larry Lankton** (Social Sciences) authored “One Family’s Journey to Earthly Paradise,” about Daniel and Lucena Brockway. Graduate student **Jane Nordberg** (Humanities) authored “Celebration on Ice” about Winter Carnival. Archivist **Erik Nordberg** authored “Uncommon Counties” examining the history of the Upper Peninsula’s 15 counties. All three articles feature photographs from the Van Pelt Library’s Copper Country Historical Collections.

Associate Professor **Susan T. Bagley** (Biological Sciences) and Research Scientist II **Dana L. Richter** (SFWP) coauthored the chapter “Biodegradation by Brown Rot Fungi”, in “The Mycota, A Comprehensive Treatise on Fungi as Experimental Systems for Basic and Applied Research,” Vol. X, Industrial Applications, Springer-Verlag, Berlin, 2002.

Assistant Professor **Amy Hietapelto** (SBE) and Tammy Hiller (Bucknell University) coauthored an article, “Contract Grading: Encouraging Commitment to the Learning Process through Voice in the Evaluation Process,” published in the Journal of Management Education, Vol. 25(6) (Dec. 2001).

## Board Turns Down Merger of Biomed and Chem Engg

On a 3–3 vote, the Board of Control failed to pass a motion to eliminate the Department of Biomedical Engineering and move its faculty and programs into the Department of Chemical Engineering.

Associate Professor **David Nelson**, chair of the biomedical engineering department, argued against the merger, saying it would diminish the program’s ability to attract quality students and faculty. In addition, he said, biomed and chemical engineering students have no common course requirements after the first year of study, and biomed faculty are not prepared to teach chemical engineering courses.

If a merger were necessary, the best match would probably be with the Department of Biological Sciences, but that alternative isn’t being considered, Nelson said.

**Weston Permsteiner**, representing the biomedical engineering students, said 81 percent of the biomed students responding to a poll said they were against the merger.

Provost **Kent Wray** said biomedical engineering faculty would not be expected to teach chemical engineering. Instead, he hoped the merger would promote collaboration among faculty in both fields. About 25 percent of the papers at the most recent conference of the American Institute of Chemical Engineers were related to biomedical engineering.

“I hate to go against the students,” Dean of Engineering **Robert Warrington** said, and in the best of all possible worlds he would not be making the recommendation to merge. However, he said, “I think it can work.” The disciplines do cross over, he said, noting that the human body is “a big chemical factory,” and by merging two small departments, they could reach the critical mass necessary to be truly successful.

The College of Engineering had hoped to save about \$80,000 as a result of the merger, largely through not instituting a national search for a chair.

“It seems like this has been a successful fledgling department,” Board Member **Marty Lagina** said. Eliminating it would be “punishing success,” he said.

Board Member **Bronce Henderson** agreed. “I remember voting for it [the creation of the biomedical engineering department] and being really excited about it,” he said. “I’m going to vote against this.”

Board members said they opposed the merger in part because biomedical engineering is an expanding program, and that the University should direct its resources toward areas of growth.

“We still have the issue of eliminating \$80,000 in costs,” Board Member **David Brule** said.

President **Curt Tompkins** said the debate exemplified the policy of shared governance. “I don’t disagree with the point the University Senate made” in opposing the merger, he said. However, the proposal to merge departments was driven by the provost’s directive to cut costs “and I’m a chain-of-command kind of guy,” he said.

On a tie vote, the Board turned down the motion to merge the departments. Board Chair **Claude Verbal** said the issue could resurface next year. “Sometimes you take two steps forward and the economy forces you to take one step back,” he said.

### In other business, the Board

- voted to eliminate the AAS in Forest Technology degree program.
- voted to eliminate the mining and materials processing engineering department and merge its faculty and programs into the geological engineering and sciences department.
- heard from Provost **Kent Wray** that the University was on track for balancing its budget by the end of the next fiscal year, June 30, 2003. Interim Chief Financial Officer **Dan Greenlee** said that the University’s cash position has improved since last year, and that position control has helped moderate the increases in the University’s number-one expense: salaries and wages.
- heard from Vice President for Advancement and Marketing **Fred Hensley** that the Leaders for Innovation Capital Campaign had raised over \$139 million toward its goal of \$140 million.
- tabled a proposed policy on dealing with financial emergencies.
- heard from Undergraduate Student Government President **Josh Bennett**. The USG opposed the merger of biomedical engineering and chemical engineering. He also thanked Wray for encouraging student involvement in campus debate.

## Apply Now for Research Excellence Grants

Vice President for Research **Dave Reed** is now soliciting proposals for FY2002 Research Excellence Fund grants. The Program Announcement document, which includes a program description, proposal format, review criteria and procedure, award procedure, and reporting requirements, can be found on the Web at <http://www.admin.mtu.edu/research/REF/>

Proposals are due no later than 5 p.m. on Friday, March 1, 2002. Proposals received after the deadline will not be accepted for consideration by the review committee for this year. Send to Joanne Polzien (jpolzien@mtu.edu), Vice President for Research office.

## Alger Makes New Anti-Ice Coating for Pavement

So long as there have been snow and roads, there have been bridges that ice up and intersections that turn to greased glass.

That era of roadway treachery could be ending. **Russ Alger**, director of the Institute of Snow Research at the Keweenaw Research Center, may have found a way to make winter's slipperiest surfaces safe for wary travelers.

Officially, it's known as "Anti-Icing Smart Overlays," and from the top a sample looks like your basic kitty litter, which isn't too far from what it is. "We're using a certain type of limestone now," said Alger, handing out a 3D sample, though researchers are working on other materials that will be even more efficient. The ground rock is stuck tight onto a small square of pavement material with epoxy. What this three-layer system does, he explains, is "soak up chemicals like a sponge."

That's what makes Anti-Icing Smart Overlays special. Typically, road commissions spread salt or other de-icing compounds on roads to melt snow and ice. The chemicals work, but they're expensive to use and take a toll on the environment, not to mention the ferrous body parts of Snow Belt vehicles.

To add insult to injury, as the ice melts, it washes the chemicals off, so the next time it snows, the salt trucks have to go out again.

But if the pavement were coated with an Anti-Icing Smart Overlay, the salt wouldn't wash off. Stuck in the thin coating, it would be ready for the next snow, and the next. Theoretically, one application of road salt could last for weeks or even longer.

Alger doesn't envision resurfacing America's entire highway system, however. "At first, the primary application would be bridge decks," he says. "It could eliminate

the problem of ice on bridges, especially in western states, where they can be 100 miles from the county garage." Bridge decks are much more prone to icing than other road surfaces, which means they are prime targets for salt trucks and a drain on road commission budgets. "Theoretically, with an Anti-Icing Smart Overlay, crews could put chemicals on a bridge in October and not go out again until March," Alger said.

In addition, problematic intersections such as Sharon Avenue and Memorial Drive could be coated, as could some icy sidewalks, to prevent car accidents and pedestrian falls.

What about when it really snows?

"Light amounts of snow melt; with heavy amounts, it still accumulates but it doesn't stick," Alger said, so it could easily be moved aside by a snow plow.

Another prime application could be airport runways. "Airports have a big coordination problem when they have to remove snow," he said. "At O'Hare, they land a plane every two minutes; when the pavement's wet, it's every 10 minutes. An Anti-Icing Smart Overlay keeps the surface friction up even if the pavement's wet, so there's an advantage in the summer and the winter."

Alger is working on a contract from the FAA to run tests this winter on a service road at O'Hare, in Chicago, and on a section of a taxiway at Atlantic City Airport in New Jersey.

Some of the greatest benefits could be closer to home. "You could mix up a pail and put it on your front walk," Alger says.

Or, a driveway coated with an Anti-Icing Smart Overlay could transform the winter experience for shovelers throughout the Keweenaw.

## January

- 18 Friday**  
7 and 9:30 p.m.—Hypnotist Fred Winters—Rozsa Center  
7:05 p.m.—Hockey, Minnesota-Duluth at MTU—Student Ice Arena
- 19 Saturday**  
7:05 p.m.—Hockey, Minnesota-Duluth at MTU—Student Ice Arena
- 20 Sunday**  
10:45 a.m.—Martin Luther King Memorial Service—Portage Lake United Church
- 21 Monday**  
noon—Classes dismissed for MLK Day; Gary Kelly gives "I Have a Dream" speech—Memorial Union steps  
noon—Weight Watchers meeting—Memorial Union Ballroom B2
- 23 Wednesday**  
4:00 p.m.—Tech Tea; "Martin Luther King and the International Perspective"—Memorial Union 105
- 24 Thursday**  
7 p.m.—Will Shapton, "Living the Past"—Keweenaw National Historical Park Headquarters, Calumet
- 25 Friday**  
7:05 p.m.—Hockey, North Dakota at MTU—Student Ice Arena  
7:15 p.m.—"Alice's Restaurant"—Calumet Theatre
- 26 Saturday**  
5 p.m.—Martin Luther King banquet honoring Dr. Ken Rowe—Memorial Union Ballroom  
7:05 p.m.—Hockey, North Dakota at MTU—Student Ice Arena

## Senate Continued from page 1

cers, the president of Staff Council, the deans of colleges and schools and two members of the Senate Finance Committee). The Reconfiguration Committee evaluates the council's plans; among their criteria will be to minimize job losses.

The Reconfiguration Committee will give its recommendations to the University Senate and the president. The president then has the option of enacting the recommendations.

The procedures for dealing with financial stress are similar, but call for Review Committees to be formed if reconfiguration of an academic department is proposed.

To see the proposals, go to [www.sas.it.mtu.edu/usenate/propose/2001-02.html](http://www.sas.it.mtu.edu/usenate/propose/2001-02.html)

## Committee Members Needed

Faculty are needed to serve on four University committees: the Conflict of Interest Committee, the Faculty Distinguished Service Award Committee, the Scientific Misconduct Inquiry Committee and the Sabbatical Leave Committee.

If you can help, please contact Jeanne Meyers ([jemeyers@mtu.edu](mailto:jemeyers@mtu.edu), 487-3331) or Bob Keen (487-2346, [rekeen@mtu.edu](mailto:rekeen@mtu.edu)).

## POSITIONS AVAILABLE AT MICHIGAN TECH

Job descriptions will be available at 1:00 p.m. on Friday, or by e-mail at <[JOBS@MTU.EDU](mailto:JOBS@MTU.EDU)>.

The following position will be posted Friday, Jan. 18, 2002, at 1 p.m. through noon, Friday, Jan. 25, 2002, in the Human Resources Office.

- Assistant/Associate Professor—School of Forestry and Wood Products
- Food Service Helper—Memorial Union (Regular, part-time position; hours vary; AFSCME internal and external posting)
- Specialized Clerk (N3)—Campus Store (UAW internal and external posting)
- Senior Security Specialist—Information Technology/Distributed Computing Services
- Secretary (N3)—College of Engineering (Regular, nine-month, part-time position; 30 hours per week; UAW internal and external posting)
- Custodian—Residential Service-Facilities (Regular, part-time position; AFSCME internal posting only)

University employees are reminded to apply in writing prior to noon, Friday, Jan. 25, 2002, to be considered as internal candidates for bargaining unit positions only. Applicants from the recall pool will be given first consideration for non-bargaining-unit positions only. Vacancy announcements are normally posted every Friday at 1:00 p.m. in the Human Resources Office. Complete job descriptions are available in the Human Resources Office or by calling 487-2280. More information regarding employment opportunities is available by calling the Job Line at 487-2895. Michigan Technological University is an equal opportunity educational institution/equal opportunity employer.