

## Strategic planning meetings on tap for faculty and staff

Several meetings for faculty and staff on the strategic planning process will be held in the coming weeks.

The meetings will include members of the Strategic Planning Working Group, chaired by Dean of Engineering **Robert Warrington** and Dean of Sciences and Arts **Max Seel**.

Directors and department chairs across campus have prepared strategic plans for their areas, which have been incorporated into portfolios, generally at the dean, vice provost, and vice presidential level. The portfolios are being integrated into a single, University-wide document, which will be used to map the University's general direction in the next ten years. The Strategic Planning Portfolio Collection Site is at <http://www.doe.mtu.edu/strategic/draft.html>

In addition to all the portfolios, the working group will also post draft outlines of the university plan as it develops. Input is welcome, said Seel, who noted that the plan is a work in progress. "Some parts are still under construction," he said.

The following meetings have been scheduled:

- University Senate, Wednesday, February 16, 5:30 p.m., EERC B45
- Town hall meeting for faculty, Thursday, February 17, 4:00–5:00 p.m., Memorial Union Ballroom A
- Town hall meeting with staff, Monday, February 21, noon–1:00 p.m., Memorial Union 105
- Meeting with Staff Council, Monday, February 28, 1:30–3:00 p.m., Memorial Union 105
- Town hall meeting with staff, Monday, March 6, noon–1:00 p.m., Memorial Union Ballroom A
- Town hall meeting with faculty, Tuesday, March 7, 4:00–5:00 p.m., Memorial Union 105

Everyone is invited. Pop, pretzels, and popcorn will be available.

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*Never let the fear of striking out get in your way.*

—GEORGE HERMAN RUTH

## Senate considers push for top Carnegie classification

The University Senate discussed February 9 Michigan Tech's effort to achieve Carnegie Doctoral/Research I status.

The new Carnegie classifications, which go into effect this year, are based solely on doctoral degrees granted. Doctoral/Research I institutions award a minimum of 50 doctoral degrees per year, and Michigan Tech has been graduating just short of that number, based on recent three-year averages.

Senator **Stephen Hackney** (MME), chair of the senate Research Policy Committee, outlined his committee's concerns with a plan developed by Vice Provost for Research and Dean of the Graduate School **Sung Lee** to achieve Doctoral/Research I status.

"We propose that the University strategy to achieve this goal be more focussed on the faculty and graduate students," Hackney said.

A primary issue was having the Graduate School allocate GTA positions, which could disrupt departments that rely on graduate students to teach and conduct labs, Hackney said. The committee also opposed Lee's proposal to hire a research administrator, saying that the money would better be spent on faculty positions or more GTAs.

Rather than retain a government liaison, as proposed, Hackney suggested that money be made available for faculty to travel to Washington, DC, so they could make research-related contacts on their own. Faculty tend to be the best advocates for their own research, he said.

The committee also opposed raising graduate tuition, though that issue was not addressed by Lee. Because graduate student tuition is often paid for through outside research funding, any increase reduces the amount of money available for research supplies, equipment, etc.

However, the committee agreed with Lee on the importance of achieving Doctoral/Research I status. They also supported

increasing the stipend for PhD students and agreed that Research Excellence Fund grants should be used to enhance graduate research.

Assistant Dean of the Graduate School **Marilyn Urion** said the proposal should be viewed in light of the situation's urgency. "Context shaped the document," she said. "We are on the edge of not qualifying" as Doctoral/Research I.

Michigan Tech can make a case for qualifying this year because of special circumstances, but in 2005, when Carnegie does its next classifications, it's important that MTU have as many PhD graduates as possible. And since Carnegie has traditionally based its numbers on three-year averages, many of those graduates are now enrolled. So the primary thrust of the report was to retain existing graduate students. "This plan focuses on getting students through the program. It emphasizes flexibility, to make sure students have the funding they need."

Having the Graduate School allocate GTAs was a response to that imperative, Urion said. "But it wouldn't be done in isolation," she said. Departments' needs would be considered.

Increasing student stipends is important, but having health benefits may be equally important to attract and retain grad students, she said. Hiring a research administrator is not a current priority, but, if research continues to grow, could be necessary in a few years. In any case, the position would not take funding away from faculty lines.

A Washington, DC, liaison would help faculty make contacts, "then step back and let the faculty talk," Urion said. Senator **Christ Ftaclas** (Physics) said having faculty make their own contacts would be more effective, since representatives may not be familiar enough with the faculty's research.

Lastly, a task force has

*(Continued on page 5)*

## You're invited: Capital Campaign brunch reception Feb. 23

All MTU faculty, staff, and faculty emeriti are invited to a brunch reception being held on Wednesday, February 23, from 9:00 to 11:00 a.m. in the Memorial Union Ballroom.

The brunch is a thank-you for the campus community's role in making the quiet phase of the Leaders for Innovation Capital Campaign such a success. Over \$71 million has been committed to the campaign, which will kick off later this month. President **Curt Tompkins** and **Dick Robbins**, chair of the Leaders for Innovation Campaign, will be in attendance.

A variety of brunch hors d'oeuvres will be available, and the atmosphere will be informal and festive. Don't forget to RSVP the Special Events Office using the reply card you received in the mail, or e-mail your response to [events@mtu.edu](mailto:events@mtu.edu) by Tuesday, February 15.

## Half-semester courses set for next year

The following half-semester courses have been approved for the 2000–01 academic year:

- BL5040 Electron Optical Methods I
- BL5050 Electron Optical Methods II
- MY4150, Composite Materials (1st half spring)
- MY4160, Corrosion and Environmental Effects (2nd half spring)
- MY4170, Materials and Energy in Society (On demand)
- MY4200, Scanning Electron Microscopy (1st half fall)
- MY4210, X-Ray Diffraction (2nd half fall)
- MY4250, Practical TEM (1st half Spring)
- MY5200, Scanning Electron Microscopy (1st half fall)
- MY5210, X-Ray Diffraction (2nd half fall)
- MY5250, Practical TEM (1st half spring)
- MY5260 Advanced Diffraction (2nd half spring)

If you have any questions, contact the Office of the Vice Provost for Instruction, 487-2537.

## United Way update: Career Center reaches 100%

The University Career Center, with the help of volunteer **Betty Gaff**, achieved a 100 percent participation rate during the recent United Way Campus Campaign, campaign chair **Cheryl DePuydt** (Physical Education), has announced.

## Correction

Professor **Martin Auer** (Civil and Environmental Engineering) was a contributor to *Fundamentals of Environmental Engineering*, a fact that *Tech Topics* failed to mention in its February 4 story on the new textbook.

# MichiganTech

Bill Curnow, executive director, University Relations  
Marcia Goodrich, *Tech Topics* editor  
Gail Sweeting, electronic marketing assistant

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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.

## Technology and remediation

Center for Teaching, Learning, and Faculty Development

By William Kennedy, director



Last year, 42 percent of our entering students, many with highly respectable ACT scores and high-school class rankings, found themselves on academic probation. Over the last decade, our first-year retention rates have fallen nearly ten percentage points. Last year, for example, nearly 20 percent of our entering class didn't return to Tech for their sophomore year. If you add up the toll of lost tuition revenue for the subsequent three or four years that those students would have been at Tech and the negative public relations that accompanies increases in attrition, the losses are substantial, to say the very least.

It's also no secret that the competition for bright students with exemplary academic records and test scores is fierce and getting fiercer. While many other schools seem to be enjoying a ride on the demographic wave of burgeoning enrollments, we are struggling to remain at a steady state. Demographers suggest this wave will be short-lived. Soon the demographics will turn against us.

Schools whose immediate problem is finding enough seats for students in classrooms and beds in dorm rooms might have the luxury of putting retention on the back burner. We cannot. Schools that have a relatively small percentage of students facing the rigors of real math, chemistry, and physics courses may choose to look the other way. We cannot.

Reviewing the individual academic transcripts of our students, I discovered that one third of the students who got a D or an F in a math or chemistry course had left the University by the middle of their sophomore year. Students who have been assured that they are top performers in high school and had this opinion verified by their standardized tests do not respond well to academic failure. Some buckle down, more leave.

High school grades and test scores are well and good, but according to many on our faculty, the truth is that many of our entering students just don't have the requisite skills to pass our introductory courses in math, chemistry, physics, and computer sci-

ence. A recent report in the *Chronicle* and calls to other universities in Michigan suggest that we are not alone in this.\*

The California State University system is now employing commercially produced software to provide remedial math courses for entering students. By their own estimate, the California State system reckons that 68 percent of their entering students need remediation to succeed in their academic course work. The Cal Poly math coordinator reports that students using commercially produced on-line courseware are performing better than students exposed to traditional remedial math instruction. Students who completed an interactive course in intermediate algebra earned 49 percent more passing grades than students who had taken a traditional classroom algebra course. Cal Poly is so convinced of the effectiveness of this approach that traditional remedial courses have been totally replaced by the online courseware.

Virginia Tech, meanwhile, has established a large, computerized Math Emporium to assist students in getting up to speed in mathematics. The Virginia Tech Emporium, which came online before the widespread availability of commercially supported software, uses home-grown software designed and maintained by faculty members, an extremely time-consuming task.

Cal Poly boasts not only increased pass rates but improved retention scores, as well. Students using the Interactive Mathematics software at Cal Poly have access to faculty support. Course supervisors can monitor individual student progress and offer personal assistance if students seem to be struggling. Math Department Chair Thomas Hale said, "I've looked at lots and lots of programs; this is the best that's out there. The student's got me, he's got the machine, he's got a lot closer attention to where he is at any given time. It's a better situation."

Can remedial courseware help more of our students to reach their stated educational goals and aspirations? It's an interesting question.

\* *The Chronicle*, "Cal State System Learns to Rely on Online Remedial-Math Courses," Feb. 2, 2000.

## Donate your books (and more) to the library

The Friends of the Van Pelt Library are soliciting books and other good things for their annual book sale, to be held in April.

Please donate your used and/or unread books—fiction or non-fiction, hardback or paperback. "We'll take them all!" organizers said. "We will also take videos and CDs."

You can deposit your donations in the box in the library foyer or, if there are too many for you to carry, call Dana Richter (487-2149, [dlrichte@mtu.edu](mailto:dlrichte@mtu.edu)) to arrange for pick-up.

You will be donating your books to a good cause. The Friends of the Van Pelt Library use the profits from this sale to fund the renewal of the paperback collection in the library, as well as to buy books for the general collection and undertake other projects on behalf of the library. For more information, contact Kim Hoagland at 487-2113 or [hoagland@mtu.edu](mailto:hoagland@mtu.edu)

## Kawatra receives Richards Award

Professor **Komar Kawatra** (MME) has been named to receive the Robert H. Richards Award by the American Institute of Mining, Metallurgical, and Petroleum Engineers (AIME).

The award is the society's highest in the field of mineral beneficiation. Recipients are chosen by the executive committee of the Society for Mining, Metallurgy, and Exploration (SME), a member society of AIME, and receive an engraved bronze plaque. The award was established in 1948 in memory of Robert H. Richards, a past president and honorary member of AIME.

Kawatra was chosen "for outstanding contributions to the mineral industry through prolific, innovative research in diverse areas ranging from comminution, concentration, and instrumentation to waste treatment, resource recovery, and utilization."

"I credit the students at Michigan Tech," Kawatra said. "They ask thought-provoking questions. And without good students, we wouldn't have any research."

He has served on the faculty of Michigan Tech since 1977 and is editor-in-chief of *Minerals and Metallurgical Processing Journal*. Kawatra has authored or coauthored approximately 100 publications, including five books. He has been active in SME, serving as president of its Mineral Processing Division in 1997–98.

Among his other honors, Kawatra has received Michigan Tech's 1987 Research Award and SME's 1994 Taggart Award. He earned an MS in Physics from the University of Poona, in India, and a PhD in Metallurgical Engineering from the University of Queensland, in Australia.

Kawatra will receive the Richards Award at the AIME Banquet, on March 13 in Nashville. As the award recipient, he will also give a lecture, "Frontiers in Mineral Processing," at the March 1 annual meeting of SME.

## MTU notables

Presidential Professor **John Johnson** (MEM) has been appointed chair of the Committee on Review for the Department of Energy's Office of Heavy Vehicle Technologies.

The committee reports to the National Research Council's Commission on Engineering and Technical Systems. The committee's task is to review the Office of Heavy Vehicle Technologies program to ascertain its overall effectiveness and then to file a report including conclusions and recommendations.

Johnson's term as chair extends through November 30.

## Storms stir up sediment soup in the Great Lakes

Mega-storms on the Great Lakes do more than just whip up waves and bring down boats.

They also shake things up at the bottom of the food chain, disturbing sediments and releasing phosphorus into the water. It's not unlike spreading fertilizer on your lawn.

"In satellite photos, you can see the nutrients coming out and stimulating algae blooms," says Professor **Charles Kerfoot** (Biological Sciences), who is participating in the five-year Episodic Events Great Lakes Experiment (EEGLE).

With \$13 million from the National Science Foundation and the National Oceanic and Atmospheric Administration, EEGLE is among the largest Great Lakes projects ever funded. Michigan Tech's EEGLE research is supported by \$1 million from NSF. Kerfoot is the biologist on the MTU research team, with Research Assistant Professor **Judith Wells Budd** (Geological Engineering and Sciences) providing expertise in remote sensing. NOAA contributes the remaining \$12 million to related EEGLE projects at the NOAA Great Lakes Environmental Research Laboratory and about ten other universities.

Until the EEGLE researchers began tracking big storms and their algal aftermaths from satellite images, this dynamic was unknown. "Nobody goes out on the lakes in November and December to look at these things," Kerfoot said. Well, almost nobody.

"It's a little pathological, really," Kerfoot admits. "We take the ships out as quickly as possible after a storm front goes through to take samples." Sometimes, if the storm is wild enough, the water in near-shore regions can look like soup.

The storms' ripple effect doesn't stop with a bumper crop of algae. "If you get a good algae bloom, you get more plankton and more food for the fish," he said.

Also as part of the EEGLE project, researchers are also getting a look back in time, at the ancestors of the organisms who now live in the lakes. Buried deep in the lake sediments are the resting eggs of tiny planktonic animals, such as rotifers and shrimp-like microcrustaceans. Though the eggs were laid decades ago, they can still hatch. "What we're finding is a real surprise," Kerfoot said. "The animals seem to be evolving. They are different now than they were just eighty years ago."

The researchers have discovered genetic differences at the DNA level in small creatures known as cladocerans, though exactly how these differences manifest themselves in the animals isn't yet known. But the changes have happened so quickly that they probably aren't random mutations. Some environmental forces seem to be at work.

You'd expect to see rapid evolution in places like Portage Lake and southern Lake Michigan, as generations of creatures respond to rapid contamination and its subsequent clean-up. But cladocerans in Lake Superior have also evolved quickly, calling into question the traditional wisdom that Superior hasn't changed much over the centuries. Researchers hope that the ancestors of today's cladocerans can shed some light on what the Great Lakes used to be.

"These are the ancestors of modern day populations, and we can see how the environment has changed by looking at how they have changed," Kerfoot said.

## Students tackle environmental design competition

Dran-o, apparently, isn't an option.

Michigan Tech students are figuring out how to unclog blocked pipelines that carry high-level radioactive waste. They are also trying to solve a second environmental problem that resonates in the Upper Peninsula: how to keep acid mine water contaminated with heavy metals out of a local aquifer.

In early April, sixteen undergraduates majoring in environmental engineering and geo-engineering will join teams from more than twenty other universities in Las Cruces, New Mexico, to present their solutions to these and other knotty environmental problems as part of the Tenth Annual Environmental Design Contest. The event is sponsored by the Waste-management Education and Research Consortium (WERC), the US Department of Energy, and corporate partners.

"These are real-world problems," said Associate Professor **Jim Mihelcic**, who is co-

advising the group with Assistant Professor **Kurt Paterson** (Civil and Environmental Engineering). "The two tasks our students picked are problems that no one else could solve."

It's not for lack of trying. "Industry has already pumped a bunch of money into trying to fix these problems, and now they are looking for new technology to come out of the contest," either from students themselves or the university faculty whose brains they pick.

Michigan Tech's team is doing well, incorporating their two contest projects in their senior design course. "But it's not so easy," Mihelcic said. "If it were an easy solution, they'd have solved it already. This competition involves a lot more work than students would do for a typical senior design project."

"But we have really good students in our program," he said. "They were looking for a challenge."

## Jazz, the first 100 years, featured in MTU concert

Submitted by the Department of Fine Arts

Michigan Tech's jazz bands will celebrate "Jazz, the First 100 Years," honoring National Black History Month, in concerts on Friday and Saturday, February 18–19. Both shows begin at 8:00 p.m. in the University Theatre and feature four student bands: the award-winning Jazz Lab Band and the Research and Development Big Band, plus combos Jaztec and Basin Street Blues Brothers, all directed by **Mike Irish**.

The shows, with somewhat different programs each night, will feature lively arrangements of great jazz classics, including music of Jelly Roll Morton, Louis Armstrong, Duke Ellington, Glenn Miller, Charles Mingus, Charlie Parker, Count Basie, Benny Goodman, Dizzy Gillespie, John Coltrane, Miles Davis, and other jazz legends.

Jazz emerged in approximately 1902, so its history embodies much of twentieth-century America. Aided by Irish's narration, MTU's bands will trace the development of jazz from its roots in New Orleans, through all its stylistic periods, to the present, including Dixieland; the "happy jazz" of Chicago in the 1920s; 1930s swing; bebop and cool jazz from the 1940s and '50s; progressive, Third Stream, and vocal jazz of the 60s; jazz/rock fusion; the emergence of world music in jazz; and the hip-hop of the '90s.

Tickets are available from MTU box offices (487-3200) for \$8 general, \$4 students (\$1 more at the door), or on the Web at <http://www.tickets.mtu.edu>.

## MTU gets \$18,000 for alcohol programming

Michigan Tech has received \$18,000 as part of a statewide initiative to curb alcohol and drug use on campus.

Under the Campus Mentoring Grant, incoming students will be paired with upper-level students and introduced to a variety of alcohol-free entertainments, from comedy clubs to trips to the Porcupine Mountains.

"The mentors will help new students adjust to the college environment in non-drinking situations," Counseling Services Director **Don Williams** said. "They'll find that there is plenty to do, both on and off campus, that doesn't involve alcohol."

Under the program, MTU also plans to connect with students before they come to the University via their local high schools, SADD chapters, etc.

The program will be coordinated by Sierra Bishop, who previously has conducted alcohol programming at MTU.

## United Nations ambassador at Tech Tea Time Feb. 16

Submitted by University Cultural Enrichment

His Excellency Marc Nteturuye, the Burundi ambassador to the United Nations, is the guest at Tech Tea Time on Wednesday, February 16, at 4:00 p.m. in the Memorial Union Alumni Lounge. His presentation is titled "Ethnic Conflict in Africa: Burundi and the African Great Lakes Region."

Nteturuye will focus on the current crises in his country, as Burundi struggles for survival following violent conflict between the predominantly Tutsi government forces and the Hutu rebels.

Nteturuye started his career as a history teacher in a Jesuit secondary school in Burundi. He went on to be a principal in a public secondary school, but it was not long before he was serving in his country's diplomatic corps as ambassador to several other African countries. After two years of service in Rwanda as the ambassador from Burundi, he anticipated the impending conflict and considers himself lucky to have been able to leave the country six months before the genocide began. After holding several high-ranking posts in the Burundian prime minister's office, he was appointed ambassador to the United Nations last year. During his tenure as ambassador, and on previous occasions, he has worked on peace initiatives and negotiations at summit meetings and peace talks to prevent and resolve conflicts in Africa.

## Family Fun Day February 26

All Michigan Tech employees and their families are invited to come enjoy themselves at Winter Family Fun Day, set for Saturday, February 26.

Most activities will take place in the SDC and the Memorial Union. There's badminton, basketball, volleyball, racquetball, wallyball, swimming, ice skating (sorry, no hockey), weightlifting, walking, jogging, target shooting (do *not* BYO gun), bowling, billiards, wellness activities, and the ever-popular free food: hot dogs, sloppy joes, chips, drinks, and ice cream. The Wellness Program is sponsoring the Big Foot Showshoe Event at McLain State Park, starting at 9:00 a.m.

Fun Day is held from 10:00 a.m. to 5:00 p.m., though some activities begin and end at different times. And some restrictions apply; check the flyer you'll be getting from Staff Council for specific information.

But there's more! When you preregister using the aforementioned flyer, your name will be entered into a drawing for your own personal Family Fun Day package, which includes two Sbarro pizzas and a twelve-day pass to the SDC. And, when you get your meal tickets at the SDC, you'll automatically be registered for additional door prizes, courtesy of Auxiliary Services.

Organizers hope that you will preregister for Family Fun Day by February 21 so they'll know how many people to expect (plus, you might win those pizzas). If you don't receive a registration form or if you'd like more information, contact Rita Smith (487-2247, [rsmith@mtu.edu](mailto:rsmith@mtu.edu)) or Dave Nordstrom (487-2578, [dpnordst@mtu.edu](mailto:dpnordst@mtu.edu)). Family Fun Day is sponsored by Staff Council, the Memorial Union, the SDC, and the Wellness Program.

## Youth attend basketball for free Saturday

Saturday, February 12, is Youth Day at the SDC Gym when the Michigan Tech basketball teams host Northwood in a GLIAC doubleheader. All those 18 and under will be admitted free.

In addition, Saturday is Senior and Parents' Day. The Huskies will honor the players' parents and also the senior members of both the men's and women's basketball teams in an on-court ceremony immediately following the women's game.

Opening tip for the women's game is set for 1:00 p.m., with the men's game to follow at 3:00 p.m. For further information, call the SDC Ticket Office at 487-2073.

## Senate meeting

*Continued from page 1*

been formed to address graduate tuition, Urion said.

Senator **Tom Snyder** (Biological Sciences) presented new language in a proposal to institute double majors. He answered administration concerns that having double majors could jeopardize ABET accreditation, noting that he had contacted ABET and that officials had no objection to double majors. In addition, RPI, Lehigh, Cal Poly, Clarkson, and Carnegie Mellon offer the equivalent of a double major with no ill effect. Offering double majors would benefit students by making their degrees more marketable, and it could benefit MTU by retaining students a semester or two longer than otherwise, thus increasing enrollment.

The senate is expected to act on the proposal at an upcoming meeting.

Senator **Erik Nordberg** (Library) reported that the Academic Policy Committee had found no evidence of discrimination against research staff in MTU's giving regular University staff three seasonal days off over the holiday season. Because research staff are paid by outside funds, no provision exists to give them paid time off beyond the established vacation, holidays, and sick days. While the University "should strive to provide equitable benefits to all of its employees," some differences are inevitable, he said. For instance, research staff received their entire 1999–2000 raises in July, while regular employees had a portion deferred until January 1. However, because of the controversy surrounding the issue, the University may choose not to give anyone

## Graduate Student Council seeks advisor

The Graduate Student Council is seeking applications for the position of advisor.

The GSC advisor attends the regular meetings of the GSC, which are usually held every other Monday at 5:30 p.m. The term of this position is two years. Applications will be accepted from all faculty and staff and will be kept confidential.

To apply, submit a curriculum vita, two letters of reference from graduate students, and a statement of your view of the advisor's role and your vision of the graduate student government's role. The application should also include any additional qualifications relating to your ability to be an effective advisor. The deadline for submitting applications is 5:00 p.m. Monday, March 6.

Please submit applications to Advisor Search Committee, GSC, ROTC 101.

If you have questions, please e-mail Gaitri Gunasekara at gpgunase@mtu.edu or Aimee Blanchard at akblanch@mtu.edu

## ECE seminar Feb. 17

Feodor Vainstein of North Carolina A&T State University will present "Low Redundancy Polynomial Checks for Numerical Computations," on Thursday, February 17, at 3:00 p.m. in Dow 642.

Vainstein's visit is sponsored by the Department of Electrical and Computer Engineering. All interested persons are invited.

## No Tech Topics Feb. 25

No *Tech Topics* will be published the week of Friday, February 25. We'll resume publication the week of March 3.

If you have any questions, call 487-1778 or e-mail [ttopics@mtu.edu](mailto:ttopics@mtu.edu).

## MTU tops Northern in blood-drive battle

By a slim 13-pint margin, MTU topped Northern Michigan University in a January blood drive to benefit the UP Regional Blood Center.

Michigan Tech donors contributed 146 pints, compared to 133 pints donated at the Northern Michigan blood drive.

The MTU event was sponsored by Residence Life and the Inter-Residence Hall Council and broadcast by Marquette radio station WMQT Q-107.

## February

### Black History Month

#### 11 Friday

**10:00 a.m.-4:00 p.m.**—Black History Month exhibit—Memorial Union Ballroom

**6:00/8:30/11:00 p.m.**—Film Board Movie: *Bone Collector*—Fisher 135

#### 12 Saturday

**1:00 p.m.**—Women's basketball, Northwood at MTU—SDC

**3:00 p.m.**—Men's basketball, Northwood at MTU—SDC

#### 14 Monday

**5:30 p.m.**—Women's basketball, Northern Michigan at MTU—SDC

**7:30 p.m.**—Men's basketball, Northern Michigan at MTU—SDC

#### 16 Wednesday

**4:00 p.m.**—Tech Tea: Marc Nteturuye, "Ethnic Conflict in Africa: Burundi and the African Great Lakes Region"—Memorial Union Alumni Lounge

**5:30 p.m.**—Strategic Planning Town Meeting with University Senate—EERC B45

#### 17 Thursday

**3:00 p.m.**—Feodor Vainstein, "Low Redundancy Polynomial Checks for Numerical Computations"—Dow 642

**4:00 p.m.**—Strategic Planning Town Meeting with faculty—Memorial Union Ballroom A

#### 18 Friday

**2:00-4:00 p.m.**—Reception for Robert Mount and Don Daavettia—Physics Conference Room

**6:00/8:30/11:00 p.m.**—Film Board Movie: *Bone Collector*—Fisher 135

**7:35 p.m.**—Hockey, Minnesota at MTU—MacInnes Student Ice Arena

**8:00 p.m.**—Jazz bands, "Jazz, the First 100 Years"—University Theatre

#### 19 Saturday

**7:05 p.m.**—Hockey, Minnesota at MTU—MacInnes Student Ice Arena

**8:00 p.m.**—Jazz bands, "Jazz, the First 100 Years"—University Theatre

#### 21 Monday

**noon p.m.**—Strategic Planning Town Meeting with staff—Memorial Union 105

#### 23 Wednesday

**9:00-11:00 a.m.**—Capital Campaign brunch reception for faculty and staff—Memorial Union Ballroom

#### 26 Saturday

**10:00 a.m.-5:00 p.m.**—Family Fun Day—SDC, Memorial Union

## POSITIONS AVAILABLE AT MTU

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 positions will be posted Friday, February 11, 2000, at 1:00 p.m. through noon, Friday, February 18, 2000, in the Human Resources Office.

Assistant Professor of Design and Technical Theatre—Fine Arts (Regular, full-time, nine-month position)

Senior Design Project Coordinator—Mechanical Engineering-Engineering Mechanics

Admissions Representative—Admissions (Regular, full-time, nine-month position based in southwest Lower Michigan)

Custodian—Memorial Union (AFSCME internal posting; third shift)

Food Service Helper—Memorial Union (AFSCME internal and external posting; regular, part-time position; variable hours)

University employees are reminded to apply in writing prior to noon, Friday, February 18, 2000, 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.