

Tech Topics

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Michigan Tech's Faculty/Staff Newsletter

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Dobney: health-care costs up, enrollment projection down

Rocketing health-care costs, disappointing enrollments, and Governor John Engler's proposed 3-percent limit on resident undergraduate tuition increases are shooting holes in Michigan Tech's five-year budget plan, Provost **Fred Dobney** told the University Senate March 10.

The only place where new dollars will be expended will be salaries and wages, although the increase in the salary pool has been scaled back from the originally planned 5 percent to 3.5 percent.

"The most likely scenario will be a 3-percent increase in state revenues, a 3-percent resident undergraduate tuition increase, and a 3.5-percent increase in the salary pool," Dobney said.

The University is looking at ending this fiscal year in the red, in part because of a \$750,000 shortfall in tuition revenue, and also because of a surge in the cost of employee health care. After MTU reorganized its health-care benefit under a PPO system in 1995, costs initially crept upward slightly. Then, in 1998, expenses ballooned 30 percent, from \$6 million to \$7.8 million. Administrators had hoped that last year's increase was an anomaly caused by a few catastrophic illnesses, but expenses this year continue to rise. The number of employees covered under the University's health-care plan has risen by 125 in the last few years, also causing an increase in health-care costs.

"This year, we are running at \$750,000 more than at the same time last year," Dobney said.

Thus, MTU may be reexamining its health-care benefit. Michigan Tech provides the most generous, non-HMO health-care benefit among all of the state's public universities, with no deductible and minimal co-pays, Dobney said. Possible changes could include increases in the co-pays for prescriptions and office visits, a co-pay for emergency room visits, and using low-cost mail-order services for prescriptions.

On the positive side, MTU's new Blue Cross/Blue Shield-administered PPO provides a 25 percent discount (Continued on page 6)

Tompkins suggests new budget formula for state's top universities

Submitted by the News Bureau

President **Curt Tompkins** is suggesting that the state legislature consider a new formula for providing appropriations to the state's top universities.

Tompkins told the House Subcommittee on Higher Education Appropriations March 10 that Michigan Tech, the University of Michigan, Michigan State, and Wayne State deserve special consideration when it comes to funding support because of the unique benefits their programs provide to the Michigan economy.

"The University of Michigan is the state's flagship institution and one of the top public universities in the world," he said. "Michigan State University is a leading land grant university and the oldest land grant institution in the United States. Wayne State is the state's urban research university, and Michigan Tech is the only public, doctorate-granting, nationally ranked technological university in the Upper Midwest.

"These four schools are the only Michigan institutions in the top 100 engineering and science research and development universities in America, and for each dollar of state appropriations they attract from 30 cents to more than a dollar in federal government and industry R&D funding."

Tompkins noted that Michigan, Michigan State, and Michigan Tech are ranked among the top public universities in America by both *U.S. News & World Report* and *Kiplinger's Personal Finance Magazine*, and these three schools account for more than 90 percent of the students who come from overseas to study in Michigan.

Top young faculty in science and engineering at each of these four institutions have been recognized by the National Science Foundation with CAREER Awards, Tompkins said. And each school has been recognized for leadership in the state's economic development by being selected to host the four meetings of the Governor's Innovation Forum and by having representatives selected to serve on the Board of Directors of Michigan Technologies, Inc.

Tompkins noted that most of the engineers graduated in Michigan each year are pro-

duced by these four schools, and that engineers are essential to the success of the state's businesses and industries. "Yet aggregate enrollment in engineering across all Michigan public universities has been fairly flat during the past fifteen years, and the Governor's Workforce Commission on which I serve has forecast shortages of engineers in Michigan for the next several decades." In fact, he said, "Michigan is a net importer of engineers and is already experiencing a significant shortage. This need is great enough that last year Governor Engler wrote to the engineering alumni of Michigan Tech, Michigan, and Michigan State, asking them to return to Michigan to fill critical employment needs."

Tompkins said that of Michigan Tech's approximately 26,000 engineering alumni under 65 years of age, about 18,000 currently work and live in Michigan. "Interestingly, more than half of Michigan Tech's engineering graduates who came from outside Michigan have found jobs here in Michigan," he said. "I think this is remarkable."

Tompkins said any policy or practice that "penalizes our universities for attracting the best and brightest out-of-state students to study engineering in Michigan and help fill the shortage of engineers in our state goes against the best interests of Michigan business and industry.

"In fact, it would be smart for the State of Michigan to pay a premium for each engineering degree generated by a Michigan university. It would be smart in our appropriation strategy to build our state's capacity to educate engineers."

Tompkins told legislators there are three appropriation practices that inhibit Michigan Tech and the state's other top engineering schools from filling the needs of Michigan industry for engineers. One is the "across the board" method of appropriation that does not recognize the critical mission of engineering schools relative to the economic development of the state. The second is the accounting method that does not recognize the worth of nonresident students in engineering and science. And the third "is the particularly hurtful practice of failing to provide incre-

(Continued on page 6)

Math department hosts visiting lecturer

Dr. Ying Miao will present a colloquium talk, "Non-Embeddable Quasi-Derived Designs," on Tuesday, March 16, 4:00-5:00 p.m. in Fisher 130. All interested are encouraged to attend.

Miao, of the Institute of Policy and Planning Sciences, University of Tsukuba, Japan, will be visiting the Department of Mathematical Sciences March 13-17. The visit is supported partially by a Faculty Development Committee Grant Award.

If you want to make enemies, just try to change something.

—WOODROW WILSON

Board of Control to meet March 19

The Board of Control will meet on Friday, March 19, at 10:00 a.m. in the MUB Ballroom. Agenda items include a discussion of the preliminary 1999–2000 budget by Provost **Fred Dobney** and approval of room-and-board and apartment rental rates for 1999–2000.

The Board's meetings are open to the public, and all interested persons are invited to attend.

Noted scientist-inventor to keynote biomed dedication

Submitted by the News Bureau

Dennis L. Matthews, program leader for the medical technology program at Lawrence Livermore National Laboratory, will be the keynote speaker for the dedication of Michigan Tech's Center for Biomedical Engineering, set for Tuesday, March 16. Titled "The Surprising Role of Technology in Fostering Better Medical Care at Lower Cost," Matthews' address is scheduled to begin at about 9:20 a.m. in M&M U115.

The presentation and following dedication are open to the public, free of charge.

Michigan Tech's new center will offer the only undergraduate biomedical engineering program in the state and is being supported by a \$943,000 grant from The Whitaker Foundation.

In his current position, Matthews is responsible for the development of industrial and medical applications of the Livermore lab technology, especially for the prevention, screening, diagnosis, and treatment of maladies such as diabetes, stroke, brain trauma, chronic pain, and cardiovascular disease. He is widely recognized as the inventor and developer of x-ray wavelength lasers. He continues to collaborate with biologists in using x-ray lasers to generate x-ray images of living subcellular material, and with materials scientists to develop new methods of studying materials properties and defects.

Matthews has lectured at several universities and research centers in the United States, Europe, and Japan, and has authored more than 200 professional articles.

MichiganTech

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- By e-mail to 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.

Important news about the MPSERS severance pay program

As of June 30, 1999, Michigan Tech is eliminating the MPSERS Severance Pay Plan, which gives eligible employees a lump-sum payout (2 percent of their salary times years of service) at retirement. The action has been approved by the Board of Control.

A new program, the Severance Pay Window Program, extends through June 30, 2001, for eligible MPSERS employees who have the required 80 points (age plus years of service) and retire by that date. However, if an eligible employee plans to retire between June 30, 1999, and the June 30, 2001, cutoff date, they must submit a form by June 30, 1999, notifying the University (1) that they plan to retire, and (2) when they will be retiring.

Details of the Severance Pay Window Program are being sent to MPSERS employees who are eligible to receive severance pay if they retire by June 30, 2001. Those who do not fill out and return the Severance Pay Window Program Election Form will not receive severance pay if they retire after June 30, 1999.

Before making a decision, anyone planning to retire under the Severance Pay Window Program should contact Ingrid Cheney, assistant director for benefits/wellness. Among other concerns, she can verify that you are eligible to receive the benefit at the time you plan to retire. Anyone who believes they are eligible and does not receive a packet should contact the Benefits Office at 487-2517 or iecheney@mtu.edu.

Chicken Little or Heads Up?

Center for Teaching, Learning, and Faculty Development

By William Kennedy, director



During the 1997–98 academic year, 42 percent of our first-year students found themselves on academic probation

during at least one academic term. This year, based only on the fall data, the percentage of the 1998–99 entering students on academic probation will probably increase. It would appear that the bulk of academic failures result from students' failure to perform in math, chemistry, and/or physics courses. With math (5 credits), chemistry (4 credits), and physics (5 credits) courses representing a major portion of the work attempted by entering students, D or F grades in these courses effectively offset success in their other courses, resulting in probationary status.

Who are we putting on probation? According to the fall 1998 CIRP survey, completed by over 1,000 of our entering students as they arrived on campus,

- only 1.7 percent believe that the chances were very good that they would fail at least one course while at MTU!
- 73.5 percent rated themselves as above average or in the highest 10 percent in mathematical ability and 81.3 percent as above average or in the highest 10 percent in academic ability
- 98.9 percent said they met or exceeded the three recommended years of high school study in mathematics
- only 27.6 percent said they had asked a high school teacher for advice during their senior year, and only 20.4 percent said they checked out a book from the library during the past year
- 35.2 percent said they studied less than 2 hours per week in high school, while only 18 percent said they spent over 10 hours per week studying

To summarize, the vast majority of our entering students feel that they have the background, the ability, and the track-record to succeed in their MTU course work. We know that this is not the case. We know that almost half of our 1997–98 entering students got the surprise of their life at some point during their first year when they flunked one or more courses and were placed on probation. Unfortunately, their skills at recovering from flunking one or more essential classes had never been tested in high school. Many fail to recover. I am told, for example, that any student flunking calculus will not succeed in passing their physics course.

A dismal picture? Indeed. These probationary rates have frightening implications for student retention, word-of-mouth recruitment, and even faculty workloads as students try to drop-and-add and creatively schedule their way out of trouble.

What can be done? I believe we need to shelve the talk about how underprepared and unmotivated our students are and adopt a whatever-it-takes approach to undergraduate education, particularly in the first year. We have clear evidence that there are teachers on this campus that are connecting effectively with their first-year students. We need to learn from them what really works and provide a stiff dose of reality adjustment for all of our entering students. As faculty, we should do what is necessary to ensure that our entering students have an experience of success in this rigorous, challenging academic environment they may have formally entered but have not really joined.

If a large portion of our students come to us as irresponsible post-adolescents prone to procrastination, avoidance, and digital escapism, it is up to us to set them straight, *in loco parentis* or not. Let's work together to give our students a solid start. With a good start, their abilities and the maturation process will carry them through, and they will fulfill our mutual expectations.

Jazz Lab Band, Echoes from Heaven perform March 12

Submitted by the Department of Fine Arts

Michigan Tech's Jazz Lab Band, Echoes From Heaven Gospel Choir, and Salsa Norte, the Latin-jazz combo, join forces for a Road Show concert featuring music polished in their just-completed spring break tours of California and Wisconsin. All three groups will be at the top of their form for the one-night-only Road Show on Friday, March 12, at 8:00 p.m. in Walker Theatre.

Thirty-six members of Echoes From Heaven and Salsa Norte flew to California on February 25 to play a week of concerts in colleges and churches in the San Francisco area, culminating in a concert in the California State Capitol in Sacramento. The tour was directed by Choirmaster **Inetta L. Harris** (fine arts).

Meanwhile, the award-winning Jazz Lab Band toured Wisconsin, playing concerts in school districts throughout the state under the direction of Director of Jazz Studies **Mike Irish**. Next stop for the band after the Road Show: the University of Wisconsin-Eau Claire Jazz Festival, where the Lab Band will compete with approximately thirty midwestern collegiate jazz groups later this month. JLB is joined in the Road Show by vocalists Matt Wright and Trish Mazurek.

Tickets are available at the Memorial Union and Student Development Complex box offices (487-3200 or -2073) for \$7 general, \$5 seniors, and \$3 students (\$1 more at the door).

Yalmer Mattila firm submits low bid for forestry addition

Submitted by the News Bureau

Yalmer Mattila Contracting, Inc., of Houghton is the apparent low bidder as general contractor for the construction of Michigan Tech's Center for Ecosystem Science following the opening of bids March 4 by facilities officials at the University. Contracts will be officially awarded after the bids have been reviewed by the Board of Control.

Director of Facilities Management **Bill Blumhardt** said Mattila's bid of \$7,134,000 was the lowest figure submitted during the sealed bidding process. That total includes a bid of \$1,650,000 from mechanical contractor Dressler Mechanical, Inc., of Marquette; and \$1,115,000 from electrical contractor Davis Electric of Traverse City.

The total cost of the project, which is an addition to the existing U. J. Noblet Forestry and Wood Products Building, is \$10 million, including furnishings, equipment, fees, and contingencies. The State of Michigan will contribute \$7.5 million toward the project; Michigan Tech's match is \$2.5 million. Construction on the 50,000-square-foot facility will begin on or about April 1, with completion scheduled for fall 2000.

Internationally acclaimed orchestra here March 13

Submitted by University Cultural Enrichment

Chamber Orchestra Kremlin, founded and conducted by Misha Rachlevsky, has earned national and international recognition as one of Russia's leading ensembles. This Moscow-based orchestra visits Michigan Tech on Saturday, March 13, for a concert in Fisher 135. Tickets for the 8:00 p.m. performance are on sale at all campus box offices.

Chamber Orchestra Kremlin enjoys a large and devoted following in Moscow. Its concerts at the Great Hall of the Moscow Conservatory and other venues in the city are quickly sold out.

Conductor Rachlevsky studied violin at the Moscow Conservatory and gained a place in the Moscow Chamber Orchestra while still a student. He left the Soviet Union in 1973 and lived and worked in different countries on three continents. He returned to Russia in 1991 to conduct a series of concerts with the Moscow Chamber Orchestra, and, inspired by the rich musical life of the city and the heady aftermath of perestroika and glasnost, he founded one of the most successful new

ensembles to emerge from Russia in the last decade, the Chamber Orchestra Kremlin.

When the orchestra returns to Moscow during the latter part of March, they will have performed fifty concerts in twenty-three states. With three tours to the U.S., three to the Far East, and sixteen to Europe, as well as numerous award-winning recordings on the Swiss label Claves, this talented young orchestra has received worldwide acclaim. You can get a quick preview of the orchestra with some RealAudio clips at <http://members.aol.com/powayenc/select6.htm>.

The evening concert will be preceded by a 2:30 p.m. master class in Walker Theatre for string players led by Rachlevsky. The master class is open to the public at no charge.

Tickets for the evening concert are on sale at the Memorial Union Box Office (487-3200, Monday-Friday, 10:00 a.m.-2:00 p.m.) and the SDC Central Ticket Office (487-2073, Monday-Friday, 8:00 a.m.-6:00 p.m.). For further information, call the University Cultural Enrichment Department (487-2844).

Young musicians perform at master class

Several young musicians from our local communities will be in the spotlight on Saturday, March 13, at 2:30 p.m. in the Walker Theatre. Pam Dunstan, JoAnna Britz, Bryan Potter, Corrin Meyer, and Christine Caneba were auditioned by a group of instructors from the Copper Country Suzuki Association and selected to perform at this special master class. Misha Rachlevsky, artistic director and conductor of the Chamber Orchestra Kremlin, will be putting these young string players, accompanied by Susan Byykkonen, through their paces.

Rachlevsky trained as a violinist at the Moscow Conservatory of Music before he became a conductor. Friends, family, and all music lovers will enjoy watching the learning process as this charismatic Russian maestro brings out the best in the students. The event is open to the public at no charge.

The master class and evening concert presented by Chamber Orchestra Kremlin are made possible in part by the MTU Committee for Campus Enrichment and the Heartland Arts Fund. Call University Cultural Enrichment (487-2844) for further information.

Electrical engg chair candidates to speak

Two candidates for chair of the Department of Electrical Engineering will be discussing their research and views on education. All interested persons are invited to attend their talks.

Dr. Edwin E. Yaz, of the Department of Electrical Engineering, University of Arkansas, will speak on "Things Stochastic and Otherwise—Past, Present, and Future," on Thursday, March 11, 1:00-2:00 p.m., in Dow 642. He will also discuss "The Four Pillars of Educational Leadership" on Friday, March 12, at 3:00-4:00 p.m. in EERC 122.

Associate Professor **Timothy J. Schulz** (electrical engineering) will give a talk, "Computational Imaging: Seeing What Was Always There," on Monday, March 15, at 4:00-5:00 p.m., in Dow 642. He will also speak on "Electrical and Computer Engineering Education: Coming to Grips with Moore's Law," on Tuesday, March 16, at 1:00-2:00 p.m. in Dow 642.

Fun books for everyone at the library

From Stephen King chillers and Dilbert to Pulitzer Prize winning novels and Carl Sagan's take on life and death, you don't have to walk far to find nifty books at MTU. The J. R. Van Pelt's Popular Collection provides all kinds of R&R reading for all kinds of tastes.

Anybody with a Tech Express card, as well as residents from the local area, can check out any of the 100 or so titles in the collection, which is on the library's main floor. These recent fiction and nonfiction works are leased from Baker & Taylor, and new titles are added regularly.

Browse the list (<http://www.lib.mtu.edu>, click on "New Books + and Popular Collection") to see what is available. You'll probably find more good books than you have time to read. The titles are linked to book reviews at amazon.com, in case you want a second opinion.

For more information, call 487-2508.

Whiskey Galore kicks off spring Club Indigos

Submitted by Joe Kirkish

Mu Beta Psi brings back Club Indigo for the spring term with three celebrated foreign comedies.

Friday, March 12, begins the spring season with an audacious comedy that takes place on a little island off the coast of Scotland during the Second World War. *Whiskey Galore* (aka *Tight Little Island*) satirically tells the story of a brave town that manages to save 50,000 cases of rare whiskey off a foundering ship. The townspeople hide the spirits so well that the authorities are unable to find it. Where it's been hidden and how they use it up provides the laughs for the remainder of the film.

Preceding the comedy will be an authentic Scottish buffet provided by master chef Eric of the Old Country Haus of Kearsarge. While the details are kept secret, there have been hints of delicacies like scotch broth, cockaleekie, scones, and very special desserts, all for \$7.50.

The buffet takes place at 6:00 p.m. The movie follows, at 7:00 p.m., for \$3.50. In both cases, children are admitted for half price.

On Friday, April 2, *Mon Oncle*, a French comedy starring Jacques Tati (the Gallic Charlie Chaplin) will be shown. And on Friday, May 7, the spring series will conclude with a Swedish sex comedy by Ingmar Bergman, *Smiles of a Summer Night*.

This Friday's event has been made possible by the generous support of attorney Jeryl Manchester.

Troupe show opens March 18

The Troupe, MTU's popular improvisational group, will fill Walker Theatre with laughter once again with the eighth annual Campus Comedy Show, set for Thursday-Saturday, March 18-20, at 8:00 p.m. Tickets are available from the MUB Box Office (487-3200) and SDC Central Ticket Office (487-2073) for \$7 general admission, \$5 seniors, and \$3 students (\$1 more at the door).

The Troupe, a 12-member student group directed by Associate Professor **Sue Stephens** (fine arts) writes its own comedy skits, improvising some on-the-spot using suggestions from the audience. Their skits include spoofs of familiar stories and current events, and popular improvisation games. Audiences of all ages enjoy the Campus Comedy Show, a highlight of the year for anyone who appreciates what an inspired improv group can do.

The Troupe just returned from a spring break tour in which they performed at schools in southwest lower Michigan. The group performs throughout the year for local schools and service organizations, where their skits include educational programs on preventing alcohol and tobacco use, preserving the environment, and similar issues. The group frequently collaborates with the MTU Wind Symphony to present lively evenings of music and comedy.

Smoke Signals free Tuesday at Michigan Tech

Submitted by University Cultural Enrichment

Winner of the coveted Audience Award and the Filmmakers Trophy at the 1998 Sundance Film Festival, *Smoke Signals* will be shown as the first of the Human Relations Committee movie series on Tuesday, March 16, at 8:00 p.m. in Fisher 135. Admission to the movie is free and open only to MTU students, faculty, staff, and their guests.

Smoke Signals is a road movie, a not-such-good-buddies adventure, and a celebration of the power of storytelling. It's also just a bit of an angry glance at the state of Indian life, set largely on Idaho's beautiful Coeur d'Alene reservation. *New York Times* critic Janet Maslin described the movie as "an affectionate and witty" take on Native American life, and praised *Smoke Signals'* appealing performances, deadpan humor, and colorful style.

"Want to laugh and soak up warmth?" asks Peter Stack of the *San Francisco Chronicle*, who strongly recommends *Smoke Signals*. "It's an experience that, even through moments of tugging sadness, makes you want to cheer . . . [The movie is] well acted, well written, with spare, beautiful imagery."

Prematurely embittered, emotionally withdrawn Victor and his wide-eyed gregarious, motormouth friend Thomas, leave "the rez" to travel cross-country by Greyhound to pick up the ashes of Victor's father, who died in a trailer park outside Phoenix. The long trip turns out to be a major rite of passage for both young men, as they solve their problems and find themselves. Along the way they discuss everything from *Dances with Wolves* to frybread, shoot hoops, eat at Denny's, and come up with an ode to John

Wayne's teeth. Victor accuses Thomas of having learned most of what he knows about Indians by watching *Dances with Wolves* and advises him to spend more time looking "more stoic." The strong silent Victor is annoyed by Thomas' funny stories and dorky clothes. He urges him to get cooler clothes and affect a tough-guy swagger. "You gotta look like a warrior," he says.

Smoke Signals is billed as the first feature written, directed, co-produced, and acted by Native Americans. Based on Sherman Alexie's book *The Lone Ranger and Tonto Fistfight in Heaven*, Alexie also wrote the screen play. This accomplished thirty-one-year-old, who's already published eight volumes of poetry and three highly acclaimed works of fiction, doesn't just challenge stereotypes, he pokes fun at them. He looks at Indian life in a down-to-earth yet irreverent way and focuses attention on the engaging and unforgettable characters.

It's a "universal story about fathers and friends and forgiveness," says director Chris Eyre. "In general, I'd make anything that touches me. At this point, it's easier for me to find Indian subjects that touch me just because I think they're uncharted territory and I feel close. Everybody's looking for good stories, and I think Native America has a wealth of good stories that need to be told."

The Human Relations series of movies, lectures, and other activities is funded through the Office of the President and is coordinated by a committee of representatives from the President's Commissions for Women and for Diversity, and University Cultural Enrichment. Call 487-2844 for further information.

Hockey teams invited to register for McKay Classic

Hockey teams of all ages and genders are invited to sign up for the Randy McKay 3-on-3 Classic Hockey Tournament, which begins Tuesday, March 23, at the SDC.

Teams consist of four players. Goalies register separately and compete against fellow goalies in a goals-against format. Cash prizes will be awarded to winners of the men's open, men's over 35, and college open divisions. All winners receive trophies. A Randy McKay scholarship will be given to a graduating hockey player from the Copper Country, and a raffle will be held April 3 for an authentic Randy McKay jersey. Tickets are \$1.

Division dates are March 23-25 for mites, women's, and high school; March 26-28 for squirts, bantams, and college open; March 30-April 1 for peewee travel and peewee house; and April 2-3 for men's open and men's over 35.

The team entry form and an application fee of \$30 per player for youth and women, \$35 for everyone else, must be returned to the SDC by Monday, March 15. A minimum of two games and a McKay Classic t-shirt are guaranteed with the entry fee.

Brochures are available at the SDC and several local businesses. Call 487-2975 or 487-2578 for more information.

Proposals in progress

Researchers, their proposals, and their potential sponsors are

- **Jean Mayo** (computer science), "POWRE: Controlling Widely Dispersed Computations Using Hardware Clocks," NSF
- **Ulrich Hansmann** (physics), "Development and Application of Generalized-Ensemble Algorithms for Protein-Folding," NSF and NIH
- **Margaret Gale** (SFWP), "Community Responses to Autumn Leaf-Fall in Temporary Woodland Ponds of Northern Minnesota," University of Georgia

Women's Week events focus on health

A variety of events focusing on women's health will be featured March 22–25 in the Memorial Union Ballroom as part of Women's Week 1999. Most events are held between 11:00 a.m. and 2:00 p.m. Everyone is invited. Bring your own sandwich to the salad lunches; Educational Opportunity is providing the salads. Call 487-2920 for more information.

Monday, March 22

- April Lindala, "Native Women's Traditions," 11:00–11:45 a.m.
- Salad lunch, 11:30 a.m.–1:00 p.m.
- Professor Martha Sloan (electrical engineering), "Lifestyle Changes," noon–12:45 p.m.
- Bulletin board judging, 4:00 p.m.

Tuesday, March 23

- Jeff Crumbaugh, registered dietician, "Food for Thought," 11:00–11:45 a.m.
- Salad lunch, 11:30 a.m.–1:00 p.m.
- Kelly December, Cardiology Associates of Marquette, "Equal Opportunity: Heart Disease—It's Not Just for Men Anymore," noon–12:45 p.m.
- Nancy Gagnon, reflexology by appointment, half-hour session, noon–2:00 p.m.

Wednesday, March 24

- Cindy Wheeler, hospice/bereavement speaker, "Grieving: Divorce, Death, and Separation," 11:00–11:45 a.m.
- Salad lunch, 11:30 a.m.–1:00 p.m.
- Exhibit by photographer Joe Kirkish, "Anthology of Women from Birth to Death," noon–12:45 p.m.
- Kathy Ptaszek, RN, "Musing on Life: Copper Country Humor," noon–12:45 p.m.
- Helen Nevanpera, owner, By Nature, "A Holistic Approach to Health," 1:30 p.m.

Thursday, March 25

- Wellness Coordinator Erin Carter, "Healthy Lifestyles and Habits—Women's Stress and Heart Disease," 11:00–11:45 a.m.
- Salad lunch, 11:30 a.m.–1:00 p.m.
- Workout with Terry Smythe, Keweenaw Memorial Health and Fitness Center, noon–12:45 p.m.
- Nancy Gagnon, reflexology by appointment, half-hour session, noon–2:00 p.m.
- Supriya Ghorpakar, "Group Meditation and Introduction to Pranic Healing," 1:00–1:45 p.m.

Tech Tea: The tooth of the matter—teeth, mercury, and the environment

Submitted by University Cultural Enrichment

Remember those cute little baby teeth the tooth fairy whisked away, leaving you with a welcome financial reward? Little did you know that lurking in their pearly whiteness were mercury and other metals. If you have any baby teeth in your possession, Dr. Rune Eide of the Department of Odontology at the University of Bergen, Norway, would be glad to add them to his collection. "Teeth can be used as a kind of mirror for the local environment," says Eide, whose research deals with dental biomaterials. "Teeth are the most stable of all human tissues, and metals incorporated into this tissue will to a large extent stay there." We'll get to the "Tooth of the Matter" at Tech Tea Time on Wednesday, March 17, at 4:00 p.m. in the Memorial Union Alumni Lounge. Eide will discuss his research and describe how animal and human primary teeth can be used as indicators, or biomarkers, of heavy metals in the environment. He'll show slides of his work, and hopefully have some preliminary comments on his studies of teeth from Upper Peninsula residents.

Eide is not the only scientist who possesses a tooth collection. Professor **Rolf Peterson** (SFWP) also has one, but his is of teeth from Isle Royale moose. "Eide is particularly interested in Isle Royale moose," says Peterson, "because we have perhaps the longest historical sample of teeth from an isolated location." Eide is interested in Upper Peninsula human teeth because of the historical presence of an active mining industry, which is

often associated with release of metals, such as mercury, into the environment. Neither Peterson or Eide anticipate any alarming findings in people, but rather some interesting geographic patterns that might reveal something about sources of mercury.

The research is supported financially by the National Park Service and Canon Corporation, in connection with a study of mercury in some Isle Royale lakes where fish have high levels of the metal. This has led to an advisory against human consumption of these fish, an advisory that also holds good for many U.P. lakes.

Eide is an associate professor in the University of Bergen's School of Dentistry, where a group of researchers have been working with primary teeth as indicators of heavy metal (lead, cadmium, mercury, etc.) exposure for many years. He is also working with mercury in relation to amalgam fillings and studying the potential for adverse reactions some patients experience. It is hoped that this dental biomaterial research will eventually lead to discoveries of new alternative materials for filling cavities in teeth. "The ultimate aim of my research," explains Eide, "is to find materials that are aesthetically acceptable, durable and as free from side effects as possible.

Tech Tea Time is coordinated by the University Cultural Enrichment Department and is free and open to the public. Call 487-2844 for further information.

Campus Beautification Committee: brightening the corners where we are

"Biodiversity," said one MTU observer, "doesn't just mean having both trees AND grass."

While there's nothing wrong with grass and trees, Nature's plant pallet offers a huge variety that is notably absent from the University's green spaces. If you would like to view, perhaps, as Wordsworth did, a host of golden daffodils decorating some part of our fair campus, you might want join a new group.

The Campus Beautification Committee is forming just in time for spring planting. Members of the MTU community are volunteering to design and plant garden areas throughout the University. Funding for plants and other supplies will be provided by Michigan Tech. The committee members will provide the labor and organization.

All gardeners, wanna-be gardeners, and plant lovers are extremely welcome, along with anyone else who likes to dig in the dirt. If you are interested in making Michigan Tech a lovelier place, contact Ellen Horsch at 487-1737 or eshorsch@mtu.edu.

Fine Arts costume sale March 20

The Fine Arts Department will sell several thousand surplus items from its costume shop to the public on Saturday, March 20, from 9:00 a.m. to noon in Walker Theatre. A wide variety of clothing, from formalwear to casual outfits, will be available, with all items priced at 50 cents. Men's and women's clothing of all types will be included, with a few fur coats, children's skating costumes, hats, ties and other accessories. Proceeds from the sale support operation of the costume shop.

Doors will open promptly at 9:00 a.m. on March 20. There will be no preview or early sales. For more information, call 487-2067.

March National Women's Month

- 12 Friday**
6:00/7:00 p.m.—Club Indigo dinner/*Whiskey Galore*—Calumet Theatre
8:00 p.m.—Jazz Lab Band and Echoes from Heaven Gospel Choir Road Show—Walker Theatre
- 13 Saturday**
2:30 p.m.—Strings master class—Walker Theatre
8:00 p.m.—Chamber Orchestra Kremlin Concert—Fisher Hall
- 15 Monday**
10:00 a.m.—Roseanne Ford, "Transport of Motile Bacteria in Porous Media"—Memorial Union Ballroom 1
- 16 Tuesday**
9:00/9:20 a.m.—Center for Biomedical Engineering Dedication, Dennis Matthews' keynote address: "The Surprising Role of Technology in Fostering Better Medical Care at Lower Cost"—M&M U115.
4:00 p.m.—Ying Miao, "Non-Embeddable Quasi-Derived Designs"—Fisher 130
8:00 p.m.—*Smoke Signals*—Fisher 135
- 18 Thursday**
8:00 p.m.—The Troupe's Campus Comedy Show—Walker Theatre
- 19 Friday**
10:00 a.m.—Board of Control meeting—Memorial Union Ballroom
8:00 p.m.—The Troupe's Campus Comedy Show—Walker Theatre

Tompkins (Continued from page 1)

mental general funds to support operations and maintenance of new buildings at our public universities, even though 100 percent incremental operating funds are provided to new or expanded prisons."

Tompkins asked legislators to correct these practices by implementing the following strategies:

- Provide, in addition to across-the-board appropriation increases, an additional \$7,324 per engineering degree granted, based on degrees awarded the previous fiscal year. This would provide approximately \$22 million to the state's engineering programs. The money would come from the pool currently obligated to the tuition tax credit—a program Governor Engler has asked the Legislature to repeal.
- In calculating the ratio of state appropriation per student, give schools like Michigan Tech credit for the out-of-state students they attract to engineering and science.
- Provide incremental operating and maintenance funds for new university buildings.

Tompkins said legislators can help the Big Four universities build their capacity to educate more engineers and scientists in Michigan by treating engineering and science education differently than other aspects of higher education, which are less costly to provide.

Senate (Continued from page 1)

for services, compared to 6 percent under Wausau, which hopefully will manifest itself in lower costs in the future, Dobney said.

On the revenue side, the University is expecting 100 fewer new students, with a total of 248 fewer students than originally projected, and, all else being equal, is facing a \$1.26-million deficit at the end of 1999–2000. The red ink is predicated on a 3-percent state appropriation increase, a 3-percent hike in resident undergraduate tuition, and a 3.5-percent increase in the salary and wage pool.

The 3-percent tuition hike represents a significant departure from the five-year plan's 5.9-percent increase for lower-division students and 9 percent for upper-division students.

"Is it to our advantage to keep tuition rates low?" asked Senator **Tom Snyder** (biological sciences), noting that the University of Michigan and Michigan State had instituted sharp tuition increases in the 1980s and are now in better financial shape than MTU.

If the state gives MTU an appropriations increase of at least 3 percent, the University will probably keep tuition rates down, Dobney said. A second budget scenario projects a 1.5-percent increase from the state, coupled with tuition increases of 5.9 percent and 9 percent for lower- and upper-division resident undergrads, respectively. Even under this budget, MTU would end the year \$1.31 million in the red.

A third budget option—perhaps the least likely—involves a 6-percent hike in state funding and a 3-percent resident undergrad tuition increase, which would raise the bottom line to \$201,000 in the black. Both the second and third budget options also include a 3.5-percent salary increase. "The news is not good," Dobney said. "There will be no new dollars for SS&E, new positions, the library, or utilities unless something changes. Any funds will have to come from realloca-

tion of existing resources."

The Board of Control will not accept a deficit budget, he said. So, to help make up the difference, position control will be stringent. And, regarding student recruitment, "We've gone about as far as we can go with the old way of doing things," Dobney said. He added that, though he has been skeptical about the value advertising, additional marketing is being considered if funding can be found to support it. "We cannot continue to do things the way we've always done them and expect different results."

In other business, the Senate

- learned that the University administration plans to retain the afternoon of Good Friday as a paid holiday for staff, even if Good Friday class dismissals are eliminated in the new academic calendar. Also, the proposed Martin Luther King Jr. Day half-day class dismissal would not result in a holiday for staff. Senate President **Bruce Seely** has submitted a senate proposal that would provide time off for members of all faiths within the University community to participate in religious observances.
- approved an MS in Environmental Engineering Science degree program.
- learned the results of the recent referendum of faculty and professional staff. Out of a possible 391 faculty, 230, or 58.8 percent, voted. A total of 105, or 45.7 percent, voted for the 15-week-semester calendar; 125, or 54.3 percent, voted for the 14-week-semester calendar. Out of a possible 451 staff, 193, or 42.8 percent, voted. A total of 153, or 79.3 percent, voted for the 15-week-semester calendar, and 40, or 20.7 percent, voted for the 14-week calendar. Senators discussed polling the student body for their feelings on the issue, but noted that this was more the purview of the Undergraduate Student Government. Later, the USG opted not to poll the student body; it opposes the senate's conducting its own poll or referendum of students. Seely said later that the senate would probably not attempt a poll of the student body.

POSITIONS AVAILABLE AT MTU

Job descriptions are available from Human Resources starting at 1:00 p.m. on Friday.
You can e-mail us at JOBS@MTU.EDU and we will e-mail you the job description you request.

The following positions will be posted Friday, March 12, 1999, at 1:00 p.m. through noon, Friday, March 19, 1999, in the Human Resources Office.

Office Assistant—Civil and Environmental Engineering/Transportation Center (UAW INTERNAL POSTING ONLY)
System Administrator—Chemical Engineering
Financial Aid Officer—Financial Aid
Manager—Tribal Technical Assistance Program

University employees are reminded to apply in writing prior to noon, Friday, March 19, 1999, 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.