

# Tech Topics

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Michigan Tech's Faculty/Staff Newsletter

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## Tompkins won't support senate's academic calendar

President **Curt Tompkins** has said he will not support the fourteen-week semester academic calendar approved February 5 by the University Senate.

"Once the faculty decided to move from quarters to semesters, after more than ten years of deliberation, it was the administration's role to make sure the transition was done well and responded to the concerns of numerous constituencies, including both students and faculty," Tompkins said. "The senate's proposal strays too far from the CICC calendar, which was carefully crafted to address those concerns."

The CICC calendar incorporates boundary conditions established by the Board of Control, which were intended to address student worries over the switch from quarters to semesters. Among the conditions, students were promised that traditional holidays would be honored and that the days of instruction would not be reduced. The senate proposal is about eight instructional days shorter than the current calendar and eliminates the K-Day and Homecoming afternoon class dismissals.

The Board of Control has the final word on the calendar. Under current policy, the calendar originates in the University Senate and must be approved by the administration before being presented to the Board.

## New staff

**Ronni Branderhorst** has joined the Memorial Union staff as a food service helper. She previously employed as manager of Little Caesar's. Branderhorst has studied photography, and she and her husband, Thomas, live in Houghton.

## Club MUB this weekend

The Memorial Union Board is featuring comic Tim Young during the MUB Comedy Club this Friday and Saturday, February 12-13, at 8:00 p.m., in the Keweenaw Commons.

Tickets are \$2 for students, \$4 for non-students, and are sold at the door. Refreshments will be served.

*Il drank at every vine.  
The last was like the first.  
I came upon no wine  
So wonderful as thirst..*

—EDNA ST. VINCENT MILLAY, "FEAST," 1923

## Free Press report predicts overhaul of state university funding

A possible new approach to allocate state funding for universities could benefit Michigan Tech.

In a February 6 *Detroit Free Press* article, staff writer Dawson Bell reported that Governor John Engler is planning to divide the state's fifteen universities into four tiers "based on their mission and program offerings." Universities within each tier will be ranked according to per student spending. Those at the top of the tier would receive a minimum 2 percent increase in their state allocation, with those at the bottom receiving increases of up to 5 percent, under the governor's proposal.

Michigan Tech is included in Tier IV with the state's other research-intensive universities. The University of Michigan tops the group with per student funding of \$14,573, followed by MTU at \$11,586; Wayne State, \$11,316; and Michigan State, \$8,383.

"Assuming that the *Free Press* is right, I am grateful that this proposal is addressing some of the funding inequities we have been struggling with for years," President **Curt Tompkins** said. "Our hope is that the governor and the state legislature will recognize the high cost of Michigan Tech's science and engineering programs, as well as its research mission, as they develop next year's higher-education budget."

## Leading dinosaur expert coming to MTU in April

Michigan Tech will be hosting dinosaur expert Robert Bakker as a 1998-99 Katherine M. Bosch speaker. He will be on campus Tuesday, April 27, for a 7:30 p.m. lecture in Fisher Hall 135.

Acclaimed as the scientist most responsible for the new ideas that show dinosaurs as hot-blooded creatures of superior construction, his revolutionary views have won over much of the popular and technical opinion about dinosaurs. He was the only real-life scientist mentioned in the movie *Jurassic Park* and assisted the special effects artists in making the dinosaurs as accurate as possible.

According to John MacIntosh of Wesleyan University, the dean of American dinosaur studies, "Dr. Bakker has done the most to spark the incredible revival of interest in the science of dinosaurs."

Bakker's visit to Michigan Tech is made possible through funding from the Katherine M. Bosch Endowment and is coordinated by the University Cultural Enrichment Department. His lecture is free and is open to the public. Call 487-2844 for further information.



All Michigan Tech employees and their families are invited, nay, exhorted, to come enjoy themselves at Winter Family Fun Day, set for Saturday, February 27.

Most activities will take place in the SDC and the Memorial Union. There's badminton, basketball, volleyball, racquetball, handball, wallyball, swimming, ice skating (sorry, no hockey), weight lifting, walking, jogging, target shooting (do *not* BYO gun), archery (do BYO bow and arrows), bowling, billiards, wellness activities, and the ever-popular free food: hot dogs, sloppy joes, chips, drinks, and ice cream.

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, 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 (so you can work off the pizzas). And, when you get your meal tickets at the SDC, you'll automatically be registered for additional door prizes: basketballs autographed by MTU's women's and men's basketball teams; a team-autographed hockey stick; passes for skating, skiing, golf, the SDC, and the Gates Tennis Center; certificates for skate sharpening and Sbarro's; and more, courtesy of Auxiliary Retail Services. Drawings will be held throughout the day.

Organizers hope that you will preregister for Family Fun Day by February 22 so they'll know how many people to expect (plus you might win those pizzas). If you haven't received a registration form, or if you need more information, contact Glenn Ek Dahl at 487-2740 or Dave Nordstrom at 487-2578. Family Fun Day is sponsored by Staff Council, the Memorial Union, the SDC, and the Wellness program.

## Former storekeeper dies

**Martin Myllyoja**, 59, who recently retired from Michigan Tech, passed away January 29.

Myllyoja came to MTU in 1978, retiring as a storekeeper in Central Stores in September 1998. His son, **Mark Myllyoja**, filled his position in December. Another son, **Mike Myllyoja** (Facilities Management), is employed as a custodian at MTU.

"Martin was a super worker, and he got along with everyone," said **Terry Collette**, facilities business manager. "Everyone liked dealing with him. He went out of his way all the time to satisfy the customer's requests."

Myllyoja, a resident of Dollar Bay, graduated in 1957 from Hancock High School and attended Michigan Tech. He worked at Swift Hardware in Houghton for eighteen years before joining the University staff. Mark also was employed at Swift True Value Hardware before coming to MTU.

"Martin was always more than willing to help," Collette said. "We were always short-handed, and he kept the operation going. His son works here now, and we hope he'll continue in his father's fine tradition."

"He was great dad," Mark said. "I miss him very much, and I'm proud to be following in his footsteps."

Myllyoja was not only very handy around the house, he was a very supportive father, Mark said. "He knew just about everything," he recalled. "There were five boys and he did everything he could for each one of us," including putting them all through junior hockey. Martin Myllyoja enjoyed camping and sports, especially at the high-school level. "And his job meant a lot to him," Mark said. "He had contact with almost everybody on campus."

Myllyoja is survived by his wife, Marlene; five sons, Dennis, Mark, and Michael, of Dollar Bay, Martin at home, and Timothy of Burt Lake; six sisters, Helen Pyer of Hollywood, Florida, Miriam Schroof of Royal Oak, Ruth Glasson of Houghton, Sylvia Goudge of Ashtabula, Ohio, Annette Hibler of Vero Beach, Florida, Anita Massey of Oakland, Oregon; a brother, Jack, of Greenville, North Carolina; and numerous other relatives.

# MichiganTech

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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.

## MTU archives announces research travel awards

The MTU Archives and Copper Country Historical Collections has given \$500 grants to two researchers through its Research Travel Award program.

William Mulligan Jr., an associate professor of history at Murray State University in Murray, Kentucky, will visit the archives as part of his research concerning Irish immigrants in the Upper Peninsula. Mulligan's project will investigate the role that Irish immigrants have played in the development of the copper and iron mines, communities, and social structures of the Lake Superior basin.

The second award is to be presented to Beth Simon, an assistant professor of linguistics at Indiana University/Purdue University in Fort Wayne, Indiana, to support her research into first language shifts in the copper mining communities of the Keweenaw Peninsula. Simon's work promises to provide fresh insight into the local immigrant experience.

The two award recipients plan to visit Houghton during the summer to conduct research in the collections of the MTU Archives. They also plan to make public presentations about their work while they are in Houghton.

The Research Travel Award program is designed to provide support for travel, food, and lodging to carry out research using the collections of the MTU Archives. Financial support for the travel award program is provided by the Friends of the Van Pelt Library.

## Engaging teaching

Center for Teaching, Learning,  
and Faculty Development



### Teaching Tips

We must do whatever it takes to ignite the intrinsic motivation and intellectual curiosity of our students.

Countless surveys and studies tell us

that more and more students are coming to college not because they want to, but because they have been convinced that they must graduate from college to attain stable, lucrative employment. Attitudinal surveys (e.g., CIRP) demonstrate that many students enter college with the view that it will be a continuous extension of rather dismal high school experiences, namely, enduring a series of dull, uninteresting, and largely irrelevant forays into the peculiar intellectual preoccupations of their instructors. Moreover, students quickly come to realize or are counseled by more senior students that concrete "success" in college has very little to do with experiencing transformational, deep learning but has more to do with discovering effective strategies for getting good grades.

We know that our students become experts in grade management, creative scheduling, repeatedly shifting majors, separating the hard from easy graders, syllabi interpretation, and securing timely and representative "scoops." These are not surprising adaptations but are consistent, in fact, with their primary goal of achieving marketable employment credentials (transcripts).

This analysis, if truly representative of the goals of our students, lends credence to faculty suspicions that the student evaluation of teaching scores are significantly influenced by the degree to which an instructor helps students to achieve these overarching goals

rather than rigorously pursuing what we might perceive as more laudable educational objectives. If the classroom is full of otherwise distracted souls continuously whispering the mantra, "Is this stuff going to be on the test?" can we really expect them to get turned on to learning? Is there really any wonder why students seem to forget so much over the term break, or even over the Winter Carnival hiatus? The reason they forget so much is that they had never exerted ownership of much in the first place. As Bloom and others have pointed out, through our testing and assessment practices, we regularly confuse the ability of students to replay selected tidbits of what went on in class with evidence of profound learning.

I would also argue that most faculty members are probably not well-positioned, well-informed, nor personally experienced in the ignition of the intrinsic motivation for deep learning. After all, many of us probably entered the academy with a much richer set of drivers, including a healthy dose of intellectual curiosity. Many of us simply found ourselves caught up in the world of ideas, automatically engaged and curious, without continuous regard to the impact of our actions on our grades. Face it, most of us came into the academy pre-engaged to the degree that we never left. No wonder it is hard for us to understand why we must win the hearts of our students before we attempt to fill their heads.

Enlivening and refocusing the intentions of our students must precede and continually undergird all of our actions if our curricular and instructional innovations are to have any measurable effect on student learning. In the next few weeks, we'll examine approaches other colleges and universities have taken in attempting to meet this challenge.

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## Research to study fractured oil and gas reservoirs

Submitted by the News Bureau

Researchers at Michigan Tech have received a \$700,000 contract from the Department of Energy to devise improved recovery methods for fractured oil and gas reservoirs in the Michigan Basin. The three-year project involves a university-industry consortium whose aim is to develop a comprehensive model for fractured carbonate reservoirs based on the "data cube" concept.

"The 'data cube' is a 3-D representation of data in spatial coordinates, such as latitude, longitude, and depth," explained the project manager, Associate Professor **James Wood** (geological engineering and sciences). "One way to look at this is that it is a 'cube' of numbers that represents surfaces in an oil field, such as the top of the Dundee Formation. You can think of it as a kind of Rubik's Cube, where each small cube is a number that represents some property of the subsurface, such as porosity or lithology."

Wood said the Michigan Tech research team will combine traditional historical data with data from modern methods in a novel way to produce a new methodology for characterizing fractured reservoirs. He said advanced visualization software will be used to fuse the data and to image it on a variety of scales, ranging from basin scale to well scales.

The goal of Wood and his colleagues, who include William Harrison of the Geology Department at Western Michigan University, geoscientists from Western Atlas and Marathon Oil companies, and consultant Eric Taylor of Traverse City, is to determine if fractures are present in a reservoir, then verify their orientation, density, whether they transmit or retard fluid flow, and most importantly, their scale.

"We need to know whether fractures are restricted to the local environment, or whether they are regional or basin wide," said Wood. "Once that is known, then recovery methods can be devised or implemented to take advantage of the fractures—for example, drilling a horizontal well so as to intersect the largest (or smallest) number of fractures."

## Shea to give polymer talk February 15

Guest lecturer Lonnie Shea will give a talk, "Polymers Matrices for Protein, Plasmid, and Cell Delivery," on Monday, February 15, at 2:00 p.m., in Chemical Sciences 201. All members of the University community are invited.

Shea is a faculty candidate in the Department of Chemical Engineering. He is from the University of Michigan.

**Y**ou don't often find me quoting John Greenleaf Whittier in *Tech Topics*, but here goes:

*For of all sad words of tongue or pen,  
The saddest are these: "It might have been!"*

I know this is true because of the extremely sad accident I had January 29 on College Avenue. It might have been way different if I'd gone through the KRC Winter Driving School on January 23 instead of February 6. I might not even have *had* an accident, and I might not find myself looking down the throat of a four-figure repair estimate from my mechanic.

Here's why: There's a lot of important stuff they don't teach you in driver's ed, particularly regarding the physics of driving on snow and ice. And they certainly don't teach you about it in physics class. But **Mark Osborne**, a senior research engineer/scientist II at the Keweenaw Research Center, has learned most of it. And, for a mere \$99 (lots, lots less than the deductible on your collision insurance, I bet) he'll give you a day-long lesson in how to take advantage of that physics and avoid accidents.

Plus, it's a blast.

First, there is the multimedia part of the course, where Osborne shows you on video what later he'll make you do in brand-new GM sport utility vehicles.

Second, you and your fellow students tool out to the KRC snow and ice track. You get to practice three different braking techniques (yes, there are three, 200 percent more than you thought), plus race around a nifty track to get back to the starting line. (At this point, Osborne may start calling you "Hotrod," for reasons that remain forever shrouded in mystery.) And, there's a handy graduate student available to pull the orange pilons out from under your Blazer if you can't stop quick enough.

Third, you climb into another SUV, with your two classmates in the back seat and Osborne riding shotgun, and begin ripping around another track, trying to make your vehicle fishtail and then trying to make it stop fishtailing. Somewhere in this session, you may get stuck in a snowbank, and Osborne may have to radio the graduate student to come pull you out. At this point, Osborne may ask how many times you had to take your driving test before you passed.

## Seminar February 19 on testing parallel programs

Associate Professor Lori Pollock of the University of Delaware, will give a talk, "Program-Based Testing of Parallel Programs," on Friday, February 19, at 3:00 p.m. in Fisher 328. Her visit is sponsored through Educational Opportunity's Visiting Women and Minority Lecturers Series and the Department of Computer Science.

Writing and verifying correct parallel programs is a much more difficult task than writing sequential programs, due in part to the lack of software testing tools. Pollock's research goal is to demonstrate that, with some extension, sequential test data adequacy criteria are applicable to parallel program testing.

## Marcia goes to driving school—



**and so can you!**

By Marcia Goodrich

My advice is to be honest and tell him it's none of his beeswax.

But really and truly, after circling the track a few times, you do learn how to straighten up oversteers, or fishtails. And they give you some great techniques to deal with understeering—when you steer but the car doesn't, preferring instead to go straight ahead, across the road, and into yet another snowbank.

And lastly, you get to test drive (OK, cause to careen) several GM vehicles with a variety of drive systems around the track. You not only get to try out your new cornering skills using the different drive systems, you also get to take Osborne, ME-EM grad student **Dustin Kuykendal** and Professor **Kee Moon** on the U.P. equivalent of Mr. Toad's Wild Ride, an experience to be savored for many years to come.

True, I don't think any of the cool driving techniques I learned could have saved the fender of my dowager Cadillac. But Osborne did pass along a bit of advice that might have prevented her disfigurement: put snow tires, preferably winter radials, on the front as well as the rear. Front wheels play a critical role in braking, and the added traction snow tires provide could shorten your stopping distance just enough to allow you to avoid vehicles that spin across the centerline into your lane when you are driving home from work. If I'd known about this a few weeks ago, I might have bought new tires, and I might not have had the accident. Ah, Mr. Whittier, how right you were.

The KRC Winter Driving School will be held every Saturday from 8:00 a.m. to 5:00 p.m. as long as the snow holds up. Call 487-2750 for more information.

## MTU jazz bands celebrate swing

Submitted by the Department of Fine Arts

"This is the swing music event of the season," Director of Jazz Studies **Mike Irish** says. Two "Swing Is the Thing" concerts bring four MTU bands, soloists Matt Wright and Trish Mazurek, plus dancers from the MTU Swing Club to Walker Theatre, on Friday and Saturday, February 12-13, at 8:00 p.m., in celebration of Black History Month.

Swing music and dancing have recently enjoyed an explosion of interest throughout the United States. Groups like the Royal Crown Review, Big Bad Voodoo Daddy, and the Brian Setzer Orchestra are playing and emulating the music of the great swing bands of Count Basie, Glenn Miller, Duke Ellington, Tommy Dorsey, and many others, while packing houses wherever they perform.

"Swing Is the Thing" will feature four Michigan Tech bands performing toe-tapping hits from the 1920s, 1930s, and 1940s. The Basin Street Blues Brothers will play the music that eventually developed into swing, including Chicago-style classics such as "That's a Plenty," "Wolverine Blues," and "The Sheik of Araby." The Research and Development Big Band delivers its big band punch with Les Brown's "Leap Frog" and Duke Ellington's "It Don't Mean a Thing If It Ain't Got That Swing."

Jaztec will explore the combo style of swing music made famous by the Benny Goodman Quartet, playing Glenn Miller's "A String of Pearls," Juan Tizol's "Perdido" (arranged for the group by trumpeter Jay Manley), and the classic "Jumpin' with Symphony Sid." Award-winning Jazz Lab Band will present a rousing set featuring the great vocal stylings of Wright and Mazurek on "I Got News for You," "I'm Beginning to See the Light," and "Bill Bailey."

As a bonus, swing dance exhibitions by members of the MTU Swing Club will be interspersed throughout the evening. Tickets for this Department of Fine Arts event are available at the Memorial Union Box Office (487-3200) and SDC Central Ticket Office (487-2073) for \$3 for students, \$5 for seniors, and \$7 general public (\$1 more at the door).



## Wind Symphony presenting Valentine's Day concert

Submitted by the Department of Fine Arts

Michigan Tech's select band, the Wind Symphony, presents a Valentine's treat, "Music of Love and Longing," at 7:00 p.m. on Sunday, February 14,

in Walker Theatre. Known for its highly entertaining approach to concerts, the Wind Symphony can be counted on to play interesting music, both band classics and pop favorites, with zest and humor. Tickets are available from MTU's box offices (487-3200 and 487-2073) for \$7 general, \$5 seniors, and \$3 students (\$1 more at the door).

Director **Jeffrey Bell-Hanson** says the program will include music about love in a broad sense. In addition to the romantic pieces we usually associate with Valentine's Day, the show celebrates love in a religious sense, love of country, and love of life. Interspersed with the music will be song lyrics and other poetry and prose appropriate for the season.

The program includes Alfred Reed's "Jubilant Overture," celebrating the ebullience of young spirits during the loveliest season of the year, spring. The overture from Verdi's opera *La Forza del Destino* deals with the eternal conflict between love and destiny. The traditional English song "Greensleeves" touches on the subject of unrequited love. The program includes a wedding favorite, "Jesu, Joy of Man's Desiring," plus a work by American composer Howard Hanson based on the chorale "Dies Natalis." The concert will close with a medley of tunes by the beloved film star Charlie Chaplin. Featured prominently in this sparkling arrangement by the U.S. Air Force Band's Floyd Werle is the sentimental favorite, "Smile," the theme of comedian Jerry Lewis's annual telethon.

More information is available from the fine arts office, 487-2067.

## Wehman to give talk Feb. 16

Jack Wehman, director, Capital and Conceptual Planning, Corporate Engineering, of BASF Corporation, will give a seminar, "Can Engineers Really Do Conceptual Design?" on Tuesday, February 16, at 4:00 p.m. in Memorial Union Red Metal Room B.

All members of the University community are invited to attend. For more information, contact the chemical engineering department at 487-3132.

## Keweenaw Symphony concert to feature cellist David Low

Submitted by the Department of Fine Arts

Acclaimed cellist David Low joins the Keweenaw Symphony Orchestra for concerts on Saturday, February 20, at 8:00 p.m., and Sunday, February 21, at 3:00 p.m. in Walker Theatre. KSO Music Director **Jeffrey Bell-Hanson** will conduct a program of classic and modern pieces that includes one written especially for Low by popular American composer Jackson Berkey.

From solo performances in China to repeat recitals in Carnegie Recital Hall, Low's stage presence and engaging personality, as well as his musicianship, have delighted audiences. *New York Times* critic Edward Rothstein called his playing "sincerely passionate, evocatively intense, acute and energetic." Violinist and teacher Josef Gingold called Low "a superior cellist, a splendid musician."

A graduate of the Eastman School of Music, Stanford University, and Northwestern University, Low is Keyser Distinguished Professor of Cello at the University of Nebraska at Omaha. His appearance with the KSO is made possible by a grant from the Michigan Council for Arts and Cultural Affairs.

The February 20-21 concerts will feature Low as soloist for Tchaikovsky's "Rococo Variations" for solo cello and orchestra and Berkey's "Elegy for a Memory." Berkey, known for his extensive work with the popu-

lar Mannheim Steamroller, wrote the "Elegy" for Low. The KSO will also perform Dvorak's "Symphonic Variations" and English composer Gordon Jacob's spirited "Passacaglia on a Well-Known Tune." Bell-Hanson says many will recognize the tune mentioned in this piece, but attending the concert is the only way to find out what it is.

A native of Washington state, Low has served as principal cellist in the Chicago Baroque Ensemble, the Sacramento Symphony, the Omaha Symphony, and the Omaha Chamber Orchestra, and was a member of the Chicago-based Delft Trio. He spends considerable time on concert stages across the country and has taped shows for Nebraska Educational Television, Arkansas Public Broadcasting, Iowa Public Broadcasting, and South Dakota Public Television, and was broadcast nationally across China in solo performances with the Beijing Film Philharmonic Orchestra. He has recorded two solo albums as well as solo works on the American Gramophone, SDG, and American Visions labels.

Tickets (\$10 general admission, \$7 senior citizens, and \$3 students if purchased in advance, \$1 more at the door) are available from the Memorial Union Box office (487-3200) and SDC Central Ticket Office (487-2073). For more information, call the fine arts office at 487-2067.

## Auditions coming for strings master class

Submitted by University Cultural Enrichment

Chamber Orchestra Kremlin, a distinguished ensemble of musicians from Moscow, will be performing at Michigan Tech on Saturday, March 13, at 8:00 p.m. in Fisher Hall. Prior to the evening concert Misha Rachlevsky, artistic director and conductor of the orchestra, will conduct a master class for strings players. The class is scheduled for 2:30 p.m. and will be held in the Walker Theatre. The master class event is free and open to the public and should be of interest to all musicians, music lovers, and anyone who is interested in watching a talented teacher and violin virtuoso in action.

Junior high, high school, and college-age violin, viola, and cello students are invited to audition for the master class on Tuesday, February 23, at 7:00 p.m. in Walker Theatre. A group of local music teachers, adjunct music faculty, and instructors from the Copper Country Suzuki Association will choose the students who will play at the master class. For further information about the auditions, call Anne Kearney-Looman at 487-6558.

Rachlevsky left the Soviet Union in 1973 and ended up in the U.S., where he became very active in chamber music. In 1984 he founded the very successful New American Chamber Orchestra, which, under his leadership, later became the resident orchestra of Granada, Spain. Then Rachlevsky set about building Granada's own civic orchestra.

In 1991, Rachlevsky was invited to Moscow to conduct a series of concerts. Charged by the unique blend of excitement, variety, and sheer talent in Moscow, and motivated by a recording offer from the Swiss label Claves, he called auditions for what has now become one of the most successful new ensembles to emerge from Russia in the last decade, the Chamber Orchestra Kremlin.

Tickets for the March 13 concert may be purchased 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 more information, call University Cultural Enrichment, 487-2844. The one-day residency of the Chamber Orchestra Kremlin is made possible in part by the Committee for Campus Enrichment with additional funding from the Michigan Tech Fund and the Heartland Fund. The Heartland Fund is a collaborative venture of Mid-America Arts Alliance, Arts Midwest, and their member state arts agencies, with primary funding from the National Endowment for the Arts and support from private contributors.

## News you can use: Beware of skin cancer

The American Cancer Society reports that skin cancer is the most common form of cancer, affecting almost 1 million people a year in the United States. Overexposure to the sun is the primary cause of skin cancer, so it's important to cover up with a hat and long sleeves and always use a sunscreen of at least 15 SPF (Sun Protection Factor). And just because it's winter and cloudy doesn't mean that you're safe, especially if you are outside for long periods skiing or enjoying other winter activities. Don't forget to protect your face.

There are three forms of skin cancer: basal cell carcinoma, squamous cell carcinoma, and malignant melanoma.

Basal cell carcinoma is the most common form of skin cancer. It is a slow-growing cancer and usually appears as a small, fleshy bump or nodule on the head, neck, or hands. It rarely spreads to other parts of the body, but if left untreated can cause extended local damage to skin and bone. When treated early, the cure rate is 95 percent.

Squamous cell carcinoma appears as nodules or red, scaly patches. It is usually found

on the rim of the ear, the face, lips, or mouth. This cancer develops into large masses and can spread to other parts of the body. Early treatment results in a 95 percent cure rate.

Malignant melanoma kills almost 7,000 people a year. It starts in the melanocytes, the skin cells that produce the dark pigment that causes a tan. Although melanoma may start in or near an existing mole, it can also appear without warning elsewhere. When caught early, melanoma is almost always curable. Check your skin regularly, and examine moles for the following:

*Asymmetry*—Does one side of the mole look different from the other?

*Border Irregularity*—Are the edges jagged or blurred?

*Color*—Does the color vary within the mole?

*Diameter*—Is the mole wider than a pencil?

If you have any questions about a mole or patch on your skin, call your physician.

## In print

Assistant Professor **Jaroslav Drellich** (MME) published a paper, "Use of the Atomic Force Microscope for Examination of Interfacial Forces in Recovered Paper Deinking Systems," coauthored by graduate student **K.-Y. Chee** (MME), J. Nałaskowski, S. Veeramasesaneni, and J. D. Miller (University of Utah), in the February 1999 issue of *Progress in Paper Recycling*.

## Students, staff get MI Space Grant Consortium awards

Eleven undergraduate and graduate students and staff have been awarded over \$57,500 in grants from the Michigan Space Grant Consortium. Undergraduates are awarded \$2,500; graduate students receive \$5,000. Students, their department, their proposal, and their advisor are

### Undergraduate

- **Brenda DeBlois** (mathematical sciences), "Girls Working with Astronomy," **Anant Godbole**

### Graduate students

- **Rick Carter** (geological engineering and sciences), "Use of Remotely Sensed Imagery to Detect the Areal Extent of *Cladophora glomerata* in Platte Bay, Michigan," **Judy Budd**
- **Daniel Warrington** (geological engineering and sciences), "Remote Sensing of Great Lakes Water Quality Using SEAW-IFS (Sea-Viewing Wide Field-of-View Sensor) Imagery," **Budd**
- **Jennifer Yotz** (geological engineering and sciences), "Volcanic Hazards Evaluation Using Repetitive Landsat Thematic Mapper (TM) Imagery," **William Rose**
- **James Chye** (geological engineering and sciences), "Automation of Edge Detection for Remotely Sensed Imagery," **Budd**
- **Richard Cookman** (geological engineering and sciences), "Hydrologic and Geochemical Monitoring and Analysis of Three Watersheds Draining Michigan's Keweenaw Peninsula into Lake Superior," **Gregg Bluth**
- **Doris Lawson Gerdes** (SFWP), "Using Spaceborne Optical and Synthetic Aperture Radar Imagery for High-Resolution Wetlands Inventory and Landscape Analysis," **Margaret Gale**
- **Colleen Riley** (geological engineering and sciences), "Quantitative Characterization of Volcanic Ash Particle Shape to Improve Remote Sensing Algorithms and Transport Modeling," **Bluth and Rose**

### Staff

- **Shalini Rudak** and **John Lehman** (Educational Opportunity), "1999 American Indian Workshop (pre-college program) (2) Women and Minorities in Engineering Group Projects 1999 (special initiatives) (3) SYP Space Science 1999 (public outreach), **Chris S. Anderson**, \$5,000 award for each
- **Gretchen Janssen** and **Rudak** (Educational Opportunity), "Secondary Educators' Fellowship & Elderhostel 1999 (special initiatives)," \$1,090 award

## February Black History Month

- 11 Thursday**  
**5:00 p.m.**—Dave Harmon, "Recent Developments in National Park Science and Management"—Forestry Trailer  
**5:30 p.m.**—Women's basketball, Grand Valley State at MTU—SDC  
**7:30 p.m.**—Men's basketball, Grand Valley State at MTU—SDC  
**7:00-10:00 p.m.**—Auditions for *Man of LaMancha*—Walker 209
- 12 Friday**  
**noon**—Richard Norris, "Aftermath of the Apocalypse: The K/T Extinction and Recovery of Marine Ecosystems"—M&M U113  
**8:00 p.m.**—Jazz bands "Swing Is the Thing" concert—Walker Theatre  
**8:00 p.m.**—Tim Young at Club MUB—Keweenaw Commons
- 13 Saturday**  
**1:00 p.m.**—Women's basketball, Ferris State at MTU—SDC  
**3:00 p.m.**—Men's basketball, Ferris State at MTU—SDC  
**8:00 p.m.**—Jazz bands "Swing Is the Thing" concert—Walker Theatre  
**8:00 p.m.**—Tim Young at Club MUB—Keweenaw Commons
- 14 Sunday**  
**7:00 p.m.**—Wind Symphony "Music of Love and Longing" concert—Walker Theatre
- 15 Monday**  
**2:00 p.m.**—Lonnie Shea, "Polymer Matrices for Protein, Plasmid, and Cell Delivery"—Chem Sci 201  
**3:30 p.m.**—Bus leaves SDC for women's and men's basketball at NMU—SDC
- 18 Thursday**  
**4:00 p.m.**—Sethanne Howard, "You and the NSF"—Fisher 139
- 19 Friday**  
**3:00 p.m.**—Lori Pollock, "Program-Based Testing of Parallel Programs"—Fisher 328  
**4:00 p.m.**—Sethanne Howard, "Four Thousand Years of Women in Science"—Fisher 139  
**7:35 p.m.**—Hockey, Wisconsin at MTU—MacInnes Student Ice Arena

## Proposals in progress

Researchers, their proposals, and their potential sponsors are

- **Kris Mattila, Sheryl Sorby** (civil and environmental engineering), and **Anne Wysocki** (humanities), "Enhancing Student Understanding through Computer Visualization of Civil Engineering/Construction Concepts," NSF
- **Alphonse Baartmans** (mathematical sciences), **Bruce Rafert** (physics), and **Sheryl Sorby** (general engineering), "Integration of Math, Physics, and Engineering for First-Year Students," NSF
- **Joan Schumaker-Chadde** (civil and environmental engineering), "Service Learning and Inquiry Science in the Great Lakes Watershed Classroom," EPA

## Faculty technology conference gives glimpse of our future

*Submitted by Renee Greenley (IT), senior systems analyst*

Mark your calendars for the "Technology and the Academy of the Future" faculty conference to be held Wednesday, May 26, at Michigan Tech. This day-long conference will examine technology's impact on the future of higher education. Two keynote speakers, James Duderstadt and Douglas Van Houweling, will be featured, along with breakout sessions.

Duderstadt is president emeritus and university professor of science and engineering at the University of Michigan. He also serves as director of the Millennium Project, a research center concerned with the future of higher education, and served as the first president of the Michigan Virtual Automotive College.

Van Houweling is president and CEO of the University Corporation for Advanced Internet Development (UCAID), the consortium of U.S. research universities currently engaged in the Internet2 project to advance networking technology and applications for the research and education community.

Be sure to reserve this day, as this will be an exciting glimpse into the many changes coming to higher education and research activities in the near future. Watch *alldpts-I* and *Tech Topics* for further information on this important conference, sponsored by Mitel.

If you would like to register, or if you have any questions, contact Renee Greenley at 487-1720.

## On the road

Associate Professor **Ghatu Subhash** (ME-EM) presented two papers, "Influence of Cold Rolling on Plastic Response of PM & CVD Re" and "Dynamic Hardness and Rate Sensitivity in Metals," coauthored by ME-EM PhD graduate **B. Koepfel**, at the TMS Fall Meeting held October 12–15 in Chicago.

## Official to talk on women in science, working with NSF

Sethanne Howard, program director for the National Science Foundation's Extragalactic Astronomy and Cosmology Program, will give two presentations at Michigan Tech during her visit next week.

"You and the NSF" will be held on Thursday, February 18, at 4:00 p.m. in Fisher 139. Howard will outline the structure at the NSF as well as discuss the various processes, including budgetary, to handle proposals for funding from the scientific community. All interested persons are invited, and refreshments will be served.

On Friday, February 19, she will present "Four Thousand Years of Women in Science." Howard shows how science is a traditional role for women, and that, for over 4,000 years of written history, women have participated in this great human adventure. Her talk begins at 4:00 p.m. in Fisher 139.

"Female creativity and genius fill our technical past. The stories of these women not only provide role models for future scientists, but also strengthen and broaden our ability to deal with the present," she said. "A look at the contributions of some technical women of the past may help the people of the present appreciate the gifts today's women have for the future."

Howard's visit is sponsored by the Department of Physics.

## 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](mailto:JOBS@MTU.EDU) and we will e-mail you the job description you request.

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

- Research Associate—Institute of Wood Research (Regular, part-time position)
- Master Machinist—Mechanical Engineering—Engineering Mechanics (AFSCME internal and external posting)
- Director of Student Activities—Student Affairs
- Senior Specialized Clerk—Auxiliary Retail Services, Campus Store (Regular, part-time, nine-month position; UAW internal and external posting)

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