

April 17, 1998

There is no sport in
hate when all the rage
is on one side.

—Percy Bysshe Shelley
"Lines to a Reviewer," 1821

Vol. XXX, No.30

Advancement fundraising way up over last year

Advancement has raised \$16.1 million so far this fiscal year, more than three times the amount raised on behalf of Michigan Tech in all of 1996–97.

The underlying reason is pretty simple, **Kim Maxwell** told the University Senate April 15. "We've been out asking."

Maxwell, executive director of the Michigan Tech Fund and development, joined **John Sellars**, the senior vice president for advancement and university relations, in outlining Advancement's current activities and plans for the coming Capital Campaign.

Advancement's success is coming in large part because of its increased staffing levels, Sellars said. Additional advancement officers are now working out of the colleges and schools, funneling gifts directly to those areas. "It's led to the expansion of some nifty programs," he said.

And Advancement will be adding more staff. "Our efforts are focused on getting the manpower to make the Campaign work," Maxwell said. "We want people here for the long haul."

One area of phenomenal improvement has been planned gifts, at \$4.2 million compared to \$200,000 last year.

To attain this level of growth, advancement officers typically spend two weeks per month on the road, and the Constituent Services office has been focused on identifying persons who might be interested in making a major gift—\$25,000 and up.

The cost of fundraising has been about 12 cents on the dollar, well beneath the 16 to 17 cents typical of most universities, Sellars said. However, he said, the University is missing opportunities because it has not yet made a sufficient investment

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Early retirement proposal expires

Faced with almost unanimous opposition from deans and department chairs, the Calendar Transition Early Retirement proposal died April 15 on the floor of the University Senate.

The proposal, developed by the Senate Finance Committee, would have given senior faculty and staff a payment of anywhere from 2.5 percent to 5 percent of their salary times years of service, up to a potential maximum of \$200,000. The Academic Forum, composed of deans and department chairs, reviewed the proposal last week.

Provost **Fred Dobney** had agreed to consider an early retirement proposal, but only if any costs were absorbed by departments.

"The majority of the chairs don't have the money for the program," said Senator **Ed Nadgorny** (physics), a committee member.

"One comment was, 'Why don't I just shoot myself in the head,'" Committee Chair **Bruce Barna** (chemical engineering) reported.

Senate President **Bruce Seely** said the institution would benefit from turnover in some areas. However, to fund the bonuses, departments would have to leave the retirees' positions vacant for a year, dividing the extra work among remaining faculty or hiring temporary help. In a time when the University is retooling for a change to semesters, that would create a huge burden. "The sense is that this proposal doesn't have a future," he said.

Since there was no chance that the proposal would be implemented in anything approaching its present form, the senate did not vote on the issue.

Professor **Les Leifer** (chemistry) said that Dobney had agreed to consider early retirement initiatives a few years ago, but now, after senators had worked

(Continued on page 6)

Crowl wins national teaching award

Submitted by the News Bureau

Professor **Daniel Crowl** (chemical engineering) has been selected to receive the 1998 Chemical Manufacturers Association Responsible Care National Catalyst Award for excellence in teaching.

The prestigious award, which includes \$5,000, a medal, and a citation, will be presented June 4 during the CMA Annual Meeting at White Sulphur Springs, West Virginia.

The Responsible Care Catalyst Awards program honors individuals who inspire students toward careers in chemistry and science-related fields through their excellent teaching ability in and out of the classroom. The program also seeks to draw public attention to the importance of quality chemistry and science teaching at the undergraduate level.

A Pennsylvania native, Crowl received his MS and PhD degrees in Chemical Engineering from the University of Illinois. He taught at Wayne State University and Louisiana State University before coming to Michigan Tech in 1993. He received the American Chemical Society's Chemical Health and Safety Award in 1994 for outstanding contributions to health and safety in chemistry and in 1995 became MTU's first recipient of the Herbert Henry Dow Endowed Chair for Process Safety.

MTU wins cement canoe competition

Submitted by the News Bureau

A team from Michigan Tech won the North Central Regional Conference Cement Canoe Competition held recently at downstate Kent Lake, in Kensington Metro Park near Southfield. MTU competed against seven other university teams during the competition.

The annual competition is sponsored by the American Society of Civil Engineers. Student **Sara Kingsley**, vice president of MTU's ASCE chapter, said the competition was divided into two categories, races and academics. The academics portion of the event included judging of each team's design paper, oral presentation, display, and final product.

Michigan Tech's winning entry, dubbed *Copper Country Cruiser*, measured 19 feet, 3 inches in length and weighed 110 pounds.

Twenty-five members of the MTU student ASCE chapter worked on the project.

Way to lead athletic advancement

Darcy Way, director of alumni relations, has been appointed the new advancement officer for the Athletic Department, effective June 1.

"With the launching of fund-raising programs for the \$2 million Hockey Education Center and the \$3 million hockey program endowment, we realized it was critical to have someone focused on athletic advancement work," said John Sellars, senior vice president for advancement and university relations. Way will be reporting to Sellars and Athletic Director Rick Yeo.

Way has been alumni relations director for eight years, coordinating programs linking Michigan Tech and its 41,000 alumni. He received a BS in Business Administration from MTU and was goaltender for the Huskies from 1978 to 1982. For the next six years, he was a production supervisor for Calgary Tent and Awning of Calgary, Alberta, returning to MTU in 1988 as assistant hockey coach and physical education instructor.

He received the 1996 Clair M. Donovan Award for Outstanding Service, in part for his work as volunteer goaltending coach and color commentator for Huskies Hockey radio broadcasts.

"Darcy has a unique combination of administrative and people skills, as well as a long history in hockey and other athletic programs," Sellars said. "We are very happy with this move and the talents he brings to the position."

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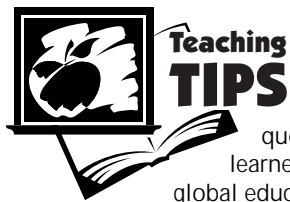
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Center for Teaching, Learning, and Faculty Development



This week, we'll take a look at the question "What can be learned from examining global educational trends involving distance education?" Although distance education is in its infancy in the US, there have been significant programs in other countries for some time. The July/August 1997 issue of *Change* contained the article "Why Universities Need Technology Strategies," by John Daniel, vice-chancellor of the Open University in Milton Keynes in England, an Oxford graduate and longtime proponent of distance education. Daniel argues that although the US presently has the world's strongest university system, we should be cognizant of the emergence of "mega-universities" that overcome the three primary challenges facing higher education world-wide: access, cost, and flexibility. Mega-universities employ varying modes of technological delivery systems to overcome these challenges.

Since half of the world's population is under 20, Daniel calculates that there is simply no practical way that present higher education institutions, using traditional delivery means, can meet the projected international demand. "The model of the university that we know and love costs too much," he notes. The cost of sending a child to a public university in the US is nearly 15 percent of the median family income (40 percent for a private school). Such costs put higher education out of the reach of the vast majority of young men and women in emerging nations. American colleges and universities, long regarded as sanctuaries of truth and discovery to be supported and protected at all costs, are increasingly being perceived (in consumerist language) as "institutions that allocate goods rather than serve customers and that value producers more than products."

So, who cares about consumerist rhetoric? Who would have dared to think, just twenty years ago, that the mighty American medical establishment, which placed the professional discretion of the physician above any considerations of cost, would be so fundamentally altered by a combined chorus of private and public voices. As inappropriate and offensive as some of us find the notion that

Higher ed and technology, national and global perspectives

by William Kennedy, director

students and parents are to be considered as our customers, there is no doubt that these ideas have taken a firm hold in some very influential circles.

Daniel suggests that our "buyers" (students) are increasingly drawn to "educational products" that they perceive as having great value (i.e., good quality and affordable) and that are distinctive (designed to meet their individual needs). He concludes that any university that endeavors to provide distinctive educational products cheaply and efficiently will prove to be an attractive and popular alternative to the traditional college experience. He cites the demographics of eleven operational mega-universities in as many countries. In 1995, they enrolled 2.8 million students at less than half the cost of traditional universities in those same countries. These are distance ed schools, "offering educational programmes designed to facilitate a learning strategy which does not depend on day-to-day contact teaching but makes best use of the potential of students to study on their own. [They] provide interactive study material and decentralized learning facilities where students can seek academic and other forms of educational assistance when they need it."

These schools are founded on an individual learning scenario in which the student interacts with carefully designed courseware at home or at work. For example, the UK Open University, with its 187,000 students, relies on the delivery of sophisticated up-to-date courseware produced by cross-functional academic teams (815 full-time faculty), individualized academic support (via 7,367 adjuncts), and a highly efficient and reliable distribution network. The distribution system provides easy access, the individual focus provides students with the flexibility of determining when, where, and how quickly to progress in their studies, while the huge numbers of students provide economies of scale making higher education affordable to many people for the very first time.

Next week, we'll attempt to sum up the likely effects of computer-based educational technology on traditional residential college experiences. Feel free to share your comments and thoughts with us at the Center for Teaching, Learning, and Faculty Development at 487-2046.

Faculty: Order your gowns now for convocation

All members of the MTU faculty are invited (and encouraged) to participate in President's Convocation, set for Wednesday, September 23. If you need to rent academic garb, contact Mike DeCaesari (mjdecaes@mtu.edu, 487-2410) with your order by Friday, April 24. The University will pay for the rental. Gown orders cannot be placed next fall, except by new faculty.

Convocation, which includes the State of the University Address, by President Curt Tompkins, is preceded by a faculty march in academic garb from Walker to Fisher Hall.

Please feel free to contact the Special Events Office (487-2284) if you have any questions.

Nanoindentation seminar April 24

Karl Yoder of the Department of Chemical Engineering and Materials Science, University of Minnesota, will give a seminar, "Nanoindentation: Exploring Mechanical Properties of the Very Small," on Friday, April 24, at 3:00 p.m. in M&M 610. For further information, please contact Doug Swenson, 487-3352, dswenson@mtu.edu

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Alumnae to be inducted into council

The Presidential Council of Alumnae will be inducting several new members on Thursday, April 23. The council recognizes the outstanding professional and personal achievements of selected MTU alumnae. They advise the president on campus climate issues and provide suggestions for enhancing the University's environment for students, both women and men.

PCA members will be on hand Friday, April 24, for guest lectures, talks with undergraduate and graduate students, etc. Between noon and 1:30 p.m. on Friday, several of the alumnae will lead brown-bag discussion groups for students. For more information, call Chris Anderson (487-3539) or Lisa Dietlin (487-3487).

The new Presidential Council for Alumnae members include the following:

Captain **Ruth Griffin Archer** joined the Air Force in 1980, and in 1984 the Air Force selected her to attend Michigan Tech. In 1986, Archer graduated summa cum laude with a BS in Electrical Engineering. Currently, she is stationed at Wright-Patterson AFB in Dayton, Ohio, as a future ground radar systems engineer, and is a facilitator for the Lieutenant's Professional Development Program.

Nancy Cragel graduated from MTU in 1986 with a BS in Mechanical Engineering. As a product design engineer for Ford, she was responsible for design and development of an all-new power tilt, power-telescoping column, and was awarded a patent for her efforts. She has started a new organization within the Ford, Women's Marketing and Product Office, which researches the female automotive market and population trends to identify business opportunities. Presently, she is a project manager for the BX179 Electric Vehicle Program.

Charlotte Iola Field graduated from Michigan Tech with a BS in Electrical Engineering in 1977 and is now regional vice president for local infrastructure and access management with AT&T. She has served as a role model for the Women in Engineering Program at MTU.

Rani Finstad received her BS in Metallurgical Engineering in 1979 from Michigan Tech and is now director (Manufacturing Math-Based) for the GM Powertrain Group. She is chair and member of US Automotive Materials Partnership—Light Metals, a member of the Michigan Tech's Metallurgy Department Advisory Board, and is an MTU Gold Carpet Network Volunteer and member of the Presidents Club.

Kathy Hayrynen completed her BS, MS, and PhD degrees in Metallurgical and Materials Engineering from Michigan Tech in 1986, 1989, and 1993. She has since worked as the technical director for Applied Process, Inc. in Livonia, Michigan. She is a two-time winner of the best paper award for the Cast Iron Division of American Foundrymen's Society.

Katherine King graduated from Michigan Tech with a BS in Engineering (Environmental) in 1979 and is co-founder and president of RMT, Inc., which specializes in environmental engineering, solid waste management, and remediation. She has served on the Michigan Tech Civil and Environmental Engineering Professional Advisory Committee and is a member of the Founders Club.

New staff

Cathy Greer has joined the Publications/Photo Services staff as a secretary II. She was previously employed in the School of Forestry and Wood Products as a temporary secretary. Greer and her husband, Greg, live in Hancock, and she has two children, Gerry and Mike.

Rose Koronkiewicz received a BS in Mechanical Engineering in 1981. Formerly with John Deere and FMC, Koronkiewicz is presently a registrar program manager for the Performance Review Institute in Warrendale, Pennsylvania. She has been a role model speaker for the Women in Engineering Program at Michigan Tech and is a life member of the MTU Alumni Association.

Susan Krienen received a BS in Chemical Engineering from Michigan Tech in 1979. She is now procurement manager for Mobil Purchased Catalyst and Chemicals and East Coast/Latin American Operations. Krienen has participated in Michigan Tech's Women in Engineering Program.

Ann Weiler McMahon completed a BA in Liberal Arts 1981 and is currently co-owner of Office Tenders, Inc. of Chassell, Michigan. She served on the Alumni Association Board of Directors and as a Gold Carpet Network Volunteer. McMahon was also the first female licensed paramedic in Michigan.

Karen Potter-Witter completed a BS in Forestry at Michigan in 1975. She is now an associate professor of forest economics at Michigan State University. She has published more than fifty articles and extension publications and teaches natural resource policy and economics, and timber management. She chairs the Michigan Society of American Foresters.

Beverly Siersma, MD, graduated from Michigan Tech with a BS in Engineering in 1974. She received a Doctor of Medicine degree from the Medical College of Wisconsin in 1985 and now works as an internal medicine physician for the Henry Ford Hospital in Westland, Michigan.

Cynthia Wageman received a BS in Mining Engineering from Michigan Tech in 1978, the first female to do so. She is senior mining engineer at Eagle Butte Mine.

TIAA-CREF financial workshop for women April 20-21

"A Financial Workshop for Women," presented by TIAA-CREF, will be held twice at MTU: Monday, April 20, at 6:00 p.m. in Memorial Union Ballroom A; and Tuesday, April 21, at 2:00 p.m. in ROTC Graduate Student Room.

Many more women are responsible for their family's finances than in the past. In fact, it is estimated that 90 percent of all women will be solely responsible for their finances at some time in their lives. TIAA-CREF's workshop is designed to provide MTU women with the tools, the resources, and the information necessary to empower you to take charge of your financial future.

To help determine if your long-term financial plans have kept pace, we invite you to attend this workshop to find out whether you're on the right track, or if it's time to readjust your strategy. Topics include

- organizing and assessing your current finances
- understanding basic types of investments
- defending yourself against personal and financial risks
- minimizing the impact of taxes on your investments
- common obstacles to building wealth

To register, contact Kandyce Liggins at 800-842-2044. Individual counseling will also be available; please check with Kandyce for availability.

In print

Presidential Professor **Ed Nadgorny** (physics) coauthored an article with G. Baranova and Y. Iunin (Solid State Physics Institute, Moscow), "Novel Etching and Polishing Techniques for Ni₃Al Crystals," in *Scripta Materialia*, Vol. 38, No. 5 (1998).

Master's candidate **Michelle Jarvie** and Associate Professor **Barry Solomon** (social sciences) coauthored an article, "Point-Nonpoint Effluent Trading in Watersheds: A Review and Critique," in *Environmental Impact Assessment Review*, Vol. 18, No. 2, March 1998.

Assistant Professor **Doug Swenson** (MME), with coauthors David Chen (Lucent Technologies Microelectronics), Y. Austin Chang (University of Wisconsin), and Frank Shepherd (Nortel Technology), published "Thermodynamically Stable Tungsten Ohmic Contacts to n-In_{0.53}Ga_{0.47}As," in the *Journal of Materials Research*, Vol. 13, No. 4, April 1998.

The research project Keweenaw Interdisciplinary Transport in Lake Superior, aka KITES, was featured in the December 1997 edition of the *Newsletter of Coastal Ocean Processes* and in the January 1998 edition of *Geotimes*. Coordinator for the \$5.3 million project, which includes researchers from six universities, is Assistant Professor **Sarah Green** (chemistry). Other MTU researchers involved in the project are Assistant Professor **Noel Urban**, Professor **Martin Auer** (civil and environmental engineering), Research Scientist **Nancy Auer**, Professor **Charles Kerfoot** (biological sciences), and Research Assistant Professor **Judith Wells Budd** (geological engineering and sciences).

On the road

Several ME-EM faculty and graduate students attended the 1998 Society of Automotive Engineers International Congress & Exposition held February 21-26 in Detroit.

Former PhD student **Cornelius Opris** presented two papers coauthored by Presidential Professor **John Johnson**, "A 2-D Computational Model Describing the Heat Transfer, Reaction Kinetics, and Regeneration Characteristics of a Ceramic Diesel Particulate Trap" and "A 2-D Computational Model Describing the Flow and Filtration Characteristics of a Ceramic Diesel Particulate Trap." Doctoral candidate **Michael Bohn** presented a paper, "A New Multi-Point Active Drawbead Forming Die: Model Development for Process Optimization," coauthored by Professor **Klaus Weinmann** and former graduate student **Stefan Jurthe**. Professor **William Shapton** chaired the Honors and Recognition Committee and Annual Honors Convocation and attended the SAE Teetor Committee meeting. Former graduate student **Mary Chrenka Opris** (Caterpillar) presented a paper, "A Comparison of Time Averaged Temperature and Surface Heat Flux on a Two-Stroke, Direct Fuel Injected Engine," coauthored by Associate Professor **Carl Anderson** and former graduate student **Robin Narrin Jason** (GM). Associate Professor **Abdi Majlessi** presented a paper, "Predicting Forming Limit Diagram for Sheet Metals with Planar Anisotropy," coauthored by Professor **Elias Aifantis** and PhD student **Xin-Hai Zhu**. Associate Professor **Song-Lin Yang** presented a paper, "In-Cylinder Turbulence Flow Simulation Using Reynolds-Stress Turbulence Model in KIVA-3," coauthored by Kemal Hanjalic (Delft University of Technology, The Netherlands). The department hosted an alumni reception Tuesday evening to celebrate the 45th Anniversary of MTU's SAE Collegiate Branch. SAE President Dave Holloway and SAE past president and MTU Board of Control member **Claude Verbal** presented the department with a plaque for their 45-year affiliation with SAE. Over 200 MTU alumni and friends attended the reception, which included an additional presentation by head hockey coach **Tim Watters**. Also attending the congress and exposition from ME-EM were Professor and Chair **William Predebon**, Professor **Duane Abata**, Professor **Lawrence Evers**, **Anderson**, **Johnson**, and **Weinmann**, along with President **Curt Tompkins**.



Four movies in Earth Week Film Festival

Submitted by the MTU Earth Week Committee

The Earth Week Film Festival features four films, to be shown Tuesday–Thursday, April 21-23, as part of this year's Earth Week events. They are free to the public, and all films are shown in Fisher 135. In addition, families are encouraged to bring their children to Tuesday's showing of *FernGully*.

***FernGully: The Last Rainforest*, Tuesday, April 21, 6:30 p.m., Rated G, 76 minutes**

Bring your family and friends and watch the fairy inhabitants of *FernGully* try to save their rain forest home from destruction. The fairy people who inhabit the spectacular rain forest of *FernGully* have never seen humans. However, when the curious tree fairy Christa sees one, she accidentally shrinks Zak down to her size. But there is trouble in *FernGully*, for Zak is part of a logging team who is there to cut down their forest home. In addition, the diabolical Hexxus is on the loose and intent on destroying all of *FernGully*.

***Local Hero*, Tuesday, April 21, 8:30 p.m., Rated PG, 111 minutes**

Burt Lancaster plays eccentric oil billionaire Felix Happer, who sends a young employee to a remote Scottish village to secure property rights to build an oil refinery. While some locals can't wait to exchange their community for money, a local hermit and the environment itself makes some consider the true worth of their community. With society's emphasis on economic development, *Local Hero* makes the viewer think about what they

For more information about Earth Week events, go to <http://chmac2.chem.mtu.edu/earthweek>. Earth Week activities at Michigan Tech are sponsored by General Motors Powertrain Group, Saginaw Malleable Iron Plant, Interface, Inc. (Atlanta, Georgia), Earth Week Committee, Michigan Tech Initiative for the Environment, and the GEM Center.

"Dynamic Duo" sings Broadway

Submitted by University Cultural Enrichment

When David Little and Lucy Thrasher sing a duet, there's no mistaking the electricity. These two Pine Mountain Music Festival stars pull out enough emotional stops in one Broadway song to make the entire musical come alive. Equally at home in opera and musical theater, Little and Thrasher will be presenting a festival preview on Sunday, April 19, at 3:00 p.m. in the Walker Theatre.

The performance will be presented on the set of *Crimes of the Heart*, the current fine arts production. The program, "If I Loved You—A Program of American Theatre Music," will include songs by Cole Porter, Kurt Weill, a selection from Rodgers and Hammerstein's great musical *Carousel*, and some humorous songs by Leonard Bernstein.

Following the tradition of the popular festival show "Stage Hits—From Opera to Broadway," where Little and Thrasher's talent as a "dynamic duo" was first discovered, they'll also include some arias from Mozart's *The Marriage of Figaro*, one of the two featured operas at this year's festival.

Little is no stranger to the area or to the festival. "It's like coming back home," he says. "I've made so many good friends in Houghton." He has appeared in leading roles in three festival operas, as Marcello in *La Boheme*, Sharpless in *Madame Butterfly*, and as Figaro in Rosini's *Barber of Seville*, when he stole the show with his rich baritone voice and his engaging talent for comedy. He returns to the festival this summer and will once again sing the role of the outrageous barber Figaro in *The Marriage of Figaro*. "My character is still a wheeler and dealer," says Little. "However, now he's employed by the count and is just a tad less outrageous."

Thrasher made her debut with the PMMF as Musetta in *La Boheme* in 1995. Her lyric soprano and sparkling portrayal of the flirtatious Musetta made her an instant favorite with the audience. She returns this June to sing the role of Susanna in *The Marriage of Figaro*.

Their visits are supported by a generous gift to the PMMF from MJ Electric. For further information about the Pine Mountain Music Festival, call 482-7338. To purchase a season subscription for the upcoming Festival, or for ticket information, call 487-2390.

truly value in their own community. Don't miss this surprisingly quirky and insightful comedy from critically acclaimed Scottish director Bill Forsyth.

***Microcosmos*, Wednesday, April 22, 8:30 p.m., Rated G, 90 minutes**

Spend a day in the French countryside exploring the fascinating parallels between the human condition and the world of insects. *Microcosmos* offers passionate kisses and kinky sex, swash-buckling duels and mass suicide, water bomb attacks and genocide, undercover operations and natural cooling systems. Nonetheless it's suitable for children, complete with an amazing candy factory and a black Sisyphus. Rated the number one movie on college campuses today! Official selection of the 1996 Cannes Film Festival.

***Soylent Green*, Thursday, April 23, 8:30 p.m., Rated PG, 97 minutes**

This science fiction classic is about New York in 2022 AD, a nightmarish city overcrowded by 40 million people who live and die in huddled masses. *Soylent Green* was arguably the most apocalyptic vision of a megalopolis prior to *Blade Runner*. Here, the starving masses depend upon the government-manufactured food Soylent Green to exist. But in the midst of a murder investigation, a cop named Thorn (played by Charlton Heston) uncovers them chilling sources of the product.

Safety in knowledge

Learn about sexual assault at Tech Tea Time

Submitted by University Cultural Enrichment

Troy Moore, cochair of the MTU Sexual Assault Task Force and a residence hall coordinator in West Wadsworth Hall, will present a program focussing on acquaintance and date rape on Wednesday, April 22, at 4:00 p.m. in the Memorial Union Alumni Lounge.

April is National Sexual Assault Awareness Month. National statistics show that one in four females will be sexually assaulted by the time they reach college age. Counseling Services reports that, based on conversations with students, acquaintance rape is not uncommon on campus. In recognition of this problem, the Sexual Assault Task Force has designated the week of April 20 as MTU Sexual Assault Awareness Week.

Moore became interested in the problem of date and acquaintance rape while in graduate school at Boston College. He came up with research from several sources, most notably from the Boston Area Rape Crisis Center. Combining this information with his martial arts experience (he has a first-degree black belt in tae kwon do), he put together a program that he has successfully presented to a number of staff and student groups.

Bearing in mind the numerous misconceptions about rape, Moore likes to engage his audience by getting them to explore their common perceptions of rapists and victims through an informal quiz. He follows this up with the legal definition of rape and

definitions of acquaintance and date rape. He challenges some of the misperceptions of rape and rapists, such as who can be a victim of rape, and what motivates someone to rape.

Moore addresses the problem of victims, who are often naive about sexual assault and find themselves in threatening situations. Sometimes their judgment is clouded by alcohol; sometimes they are paralyzed by fear; and he warns about the danger of the so-called date-rape drugs, Rohypnol and gamma-hydroxybutyrate or GHB. Moore offers strategies that can be used to recognize and avoid a date-rape situation and some tips on self-defense.

Moore discusses what to do if you or a friend are raped, and how to offer the right kind of support to a rape victim. Emphasizing the importance of seeking medical attention, he'll describe the policies and procedures used by local law enforcement agencies and hospitals when a rape is reported.

The task force will be distributing informational table tents in all campus cafeterias and "No Means No" buttons (funded by Staff Council). Volunteers from the sororities will staff the solicitations desk in the Memorial Union to offer pamphlets and general information about sexual assault.

Tech Tea Time is coordinated by University Cultural Enrichment and is free and open to the public. For further information or to offer program proposals for the 1998-99 school year, call 487-2844.

Lifeguard, first aid, CPR recertification testing available

MTU Community Programs is offering retesting and review of lifeguarding, first aid, and CPR skills for anyone who has been previously certified, including updates in the challenge format.

These sessions are designed especially for lifeguards, youth workers, and other professionals who may be supervising swimming and other summer activities in the upcoming months.

Participants should review their relevant books prior to class. Teachers will be Dominic Feira and Dulnath Wijaratne, experienced lifeguard instructors.

"CPR for the Professional Rescuer" will be held Monday, April 20, from 7:00 to 9:00 p.m. in SDC 237. "Lifeguarding/First Aid" will be held Thursday, April 23, from 8:00 to 10:00 p.m. in the SDC Pool Office.

Cost is \$12 per session. To register, call Community Programs at 487-2975. If you have any questions, call Judy Fynewever, 487-2987.

Industrial Light and Magic speaker here April 27-28

John R. A. Benson, the head of Computer Graphics Commercials at Industrial Light and Magic, will give a free lecture, "Dynamic Computer Graphics," on Monday, April 27, at 8:00 p.m. in Fisher 135.

Industrial Light and Magic, founded by George Lucas in 1975, has won numerous awards, including fourteen Academy Awards for best visual effects. Benson will visit classes on Tuesday, April 28.

His two-day visit is sponsored by the Mark Eugene Howard Seminar series, which supports special events on the interaction of art and technology. For more information, contact University Cultural Enrichment, 487-2844.

MTU notables

Associate professors **Diana George** and **Marilyn Cooper** and Assistant Professor **Dennis Lynch** (humanities) have received the Braddock Award for the best article published in 1997 in *College Composition and Communication*.

The award was presented at the Conference on College Composition and Communication held recently in Chicago, for their article, "Moments of Argument: Agonistic Inquiry and Confrontational Cooperation," which appeared in the February issue.

"This award represents the profession's highest honor for journal-length publications, and it has never before been won by a scholar (or team of scholars) at Michigan Tech," Professor and Chair **Cindy Selfe** (humanities) said. The award honors Richard Braddock, University of Iowa, who influenced many scholars and teachers in composition studies.

Biomed Center candidate here April 17

Kinda Khalaf, PhD, will present a seminar, "Development of Experimental and Analytical Models for Biomechanical Simulation and Ergonomic Assessment of Manual Material: Handling MMH Tasks," on Friday, April 17, at 11:00 a.m. in ROTC Graduate Student Center.

Khalaf, a 1997 graduate of Ohio State University, Industrial and Systems Engineering Department, is a candidate for a faculty position in the Center for Biomedical Engineering. All interested persons are invited. For more information, contact John Beard, jbeard@mtu.edu

Wind Symphony presents "Blast of Band"

Submitted by the Department of Fine Arts

MTU's Wind Symphony promises an evening of high-spirited musical entertainment on Sunday, April 19, at 8:00 p.m. in the Finnish-American Heritage Center. "Blast of Band: An Explosion of Musical Color" will showcase band favorites in many different styles, enlivened by the Wind Symphony's usual entertaining script.

The Wind Symphony harnesses the energy of college-age students in a style that appeals to young and old alike. Sunday's program has something for everyone, from Sousa's beloved "Stars and Stripes Forever" to Gustav Holst's "Hammersmith Prelude," a modern piece made famous by the US Marine Band. A highlight will be John Gibson's "Resting in the Peace of His Hands," which the ensemble has chosen for a new fine arts department CD which will be available in the fall.

A recent concert tour took the Wind Symphony through Upper Michigan and Wisconsin to Duluth, playing eleven concerts in six days and receiving several standing ovations, according to director **Jeff Bell-Hanson**.

Tickets are available at the Memorial Union Box Office (487-3200), SDC Central Ticket Office (487-2073), Calumet Theatre (337-2610) for \$7 general admission, \$5 senior citizens, and \$3 students. Tickets are \$1 more at the door.



Advancement (Continued from page 1)

in staff. "We know we're passing up many potential gifts because we're not out there," he said.

Currently, Advancement is concentrating on completing the fundraising for four major buildings: the Dow Environmental Sciences and Engineering Building, the Rozsa Performing Arts Center, the Meese Center, and the forestry addition.

Then Advancement will focus its attention on the Capital Campaign, designed to fortify the University's endowment and provide ongoing support for numerous University programs. Currently, the Fund has about \$62 million, with about \$30 million designated for capital projects. The remaining \$32 million serves as the University's endowment, which is far below that of peer institutions such as Lehigh University (\$544 million) and Georgia Tech (\$775 million). Per student, MTU's endowment amounts to about \$4,000, compared to \$59,000 at Georgia Tech and \$97,000 at Lehigh. The anticipated goal of the Capital Campaign is \$100 million.

"In the future, most of the money raised will enhance education," Provost **Fred Dobney** said. The Campaign will fund endowed scholarships and chairs, lab equipment, technology and integrated learning, and enrichment programs. "They are not just raising money to build buildings and pay Tech Fund employees," he said. "[A larger endowment] makes your jobs easier and more effective."

"And every endowed scholarship and every endowed chair releases money from the general fund budget," Maxwell added.

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 position will be posted Friday, April 17, 1998, at 1:00 p.m. through noon, Friday, April 24, 1998, in the Human Resources Office.

Library Assistant—J. R. Van Pelt Library
(Temporary, six-month position)

University employees are reminded to apply in writing prior to noon, Friday, April 24, 1998, 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.

Early retirement (Continued from page 1)

hard to develop proposals, the administration reneged by refusing to support the measure. This shows the administration's lack of commitment to faculty and staff, he said. Senator **Wayne Pennington** (geological engineering and sciences) said that the administration should not be held responsible for not approving the proposal, since senators had initiated it.

"Buy-outs are a bad policy, period," Senator **Jim Pickens** (SFWP) said. Unexpectedly high expenses resulting from the last buy-out helped precipitate a round of layoffs in 1991 and two years of no pay increases, he said.

Vice Provost for Instruction **Stephen Bowen** reported on general education and assessment. Michigan Tech is well ahead of most universities in implementing assessment programs, he said, though only a few departments are ranked "good." Most are "adequate" and a handful are "inadequate."

MTU can thank its recent accreditation process for leading to improvements in both assessment and general education, Bowen said. Because the old general education guidelines have been eliminated, "We have an opportunity to plan some innovative gen ed programs."

According to a recent phone survey, development of the general education curriculum is proceeding so far with little or no controversy among most faculty members, he said. Following a vote in September, faculty will be invited to flesh out the details of the classes.

Dobney stressed his support for general education. "I am convinced, determined, and inflexible on the point that general education should make up one quarter of the curriculum," he said. "This is not a way to increase the number of humanities courses, which is what some engineers seem to think." Gen ed should give all students an understanding of business and engineering principles and not be limited to the traditional humanities, sciences, social sciences, and the arts. "It should give a good liberal education for the twenty-first century," Dobney said.

In other business, the senate

- passed without debate a proposal to institute an English Education option in the BA in Liberal Arts degree.
- heard from Seely that newly hired exempt staff will probably have a probationary period if the Board of Control eliminates language on the staff employment application saying employees serve "at-will." The University is developing arbitration procedures, under which fired employees could bring their case to an outside arbitrator, for implementation if the "at-will" language is cut.
- heard from Seely that an American Association of University Professors attorney had recommended that Scientific Misconduct Policy procedures not include a reference to "due process." "Due process" provides minimal protection, he reported, compared to detailed procedures. Senator **William Shapton** (ME-EM) said that, based on his experience investigating scientific misconduct allegations, the inquiry should remain private until the end of the investigation.

April

Fair Housing Month

- 17 **Friday**
11:00 a.m.—Kinda Khalaf, "Development of Experimental and Analytical Models for Biomechanical Simulation and Ergonomic Assessment of Manual Material"—ROTC Graduate Student Center
8:00 p.m.—University Theatre: *Crimes of the Heart*—Walker Theatre
- 18 **Saturday**
3:00 p.m.—David Little, Linda Thrasher, "If I Loved You—A Program of American Theatre Music"—Walker Theatre
8:00 p.m.—University Theatre: *Crimes of the Heart*—Walker Theatre
- 19 **Sunday**
8:00 p.m.—Wind Symphony "Blast of Band" concert—Finnish-American Heritage Center
- 20 **Monday**
6:00 p.m.—A Financial Workshop for Women—Memorial Union Ballroom A
- 21 **Tuesday**
1:00 p.m.—Teleconference, "The Changing American College Student: Implications for the Freshman Year and Beyond"—EERC B11
2:00 p.m.—A Financial Workshop for Women—ROTC Graduate Student Center
6:30 p.m.—Film: *Fern Gully*—Fisher 135
8:00 p.m.—Film: *Local Hero*—Fisher 135
- 22 **Wednesday**
4:00 p.m.—Tech Tea: Troy Moore on sexual assault awareness—Memorial Union Alumni Lounge
8:30 p.m.—Film: *Microcosmos*—Fisher 135
- 23 **Thursday**
all day—Take Our Daughters to Work Day
6:30 p.m.—Film: *Soylent Green*—Fisher 135
8:00 p.m.—University Theatre: *Crimes of the Heart*—Walker Theatre
- 24 **Friday**
3:00 p.m.—Karl Yoder, "Nanoindentation: Exploring Mechanical Properties of the Very Small"—M&M 610
8:00 p.m.—University Theatre: *Crimes of the Heart*—Walker Theatre
- 25 **Saturday**
8:00 p.m.—University Theatre: *Crimes of the Heart*—Walker Theatre
8:00 p.m.—Mump and Smoot: Clowns of Horror—Fisher 135
- 27 **Monday**
8:00 p.m.—John R. A. Benson, "Dynamic Computer Graphics"—Fisher 135