

Tech Topics

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Michigan Tech's Faculty-Staff Newsletter

Published weekly by University Relations

Faculty Development Grants Available

The Center for Teaching, Learning, and Faculty Development is seeking proposals for Faculty Development Committee Grants.

All members of the MTU educational community are invited to submit proposals. Grants are made to faculty and teaching assistants to support innovative teaching methods, interdisciplinary instructional initiatives, and professional and personal development. The maximum awards are \$500 for grants that benefit an individual or small group, \$1,500 for grants that benefit a department or interdisciplinary group, and \$3,000 for grants that benefit a campus-wide constituency.

Proposals that include matching funds are looked upon favorably, but matching funds are not required. For more information, contact the center at 487-2046 or nsseely@mtu.edu. Applications and the complete RFP are also available on the Web off the center's home page, www.admin.mtu.edu/ctlfld/

The application deadline is Feb. 16, at 5:00 p.m. in the center, Academic Office G010.

Thornton Honored at MLK Banquet

Assistant Professor **Otha Thornton** (Army ROTC) received the 2000 Parting of the Waters Award at the annual Martin Luther King Banquet, held January 20 at MTU.

The annual award is given to an administrator, faculty member, or staff member who has given outstanding service to Michigan Tech students.

The event was funded in part by the Dow Chemical Corporation and organized with the help of a number of student organizations, including the Black Student Association, National Society of Black Engineers, Society of African American Men, and the Society of Intellectual Sisters.

Entertainment was provided by the Echoes from Heaven Gospel Choir and performances by undergraduates **Sherrie Smith** and **Jermaine Donaldson**. "Through Our Eyes," a dramatic presentation on prejudice, was presented by 7AM Productions of North Carolina.

Happiness walks on busy feet.

—KITTE TURMELL

MSX, MTU Form Distance Learning Partnership

Michigan Tech will soon begin offering bachelor's and master's degrees in engineering to employees of MSX International Inc. via distance learning.

The Auburn Hills-based company has 17,000 professional staff and contract personnel worldwide providing professional and technical services to industry.

"We're excited to have Michigan Tech as a strategic partner in delivering degreed engineering programs to our employees through flexible distance learning methods and technology," said Paul Wagner, MSX International vice president of human resources.

"Michigan Tech is recognized as one of the premier national engineering schools in the United States."

Starting this semester, Michigan Tech will be offering MSX employees upper-division classes leading to a BS in Engineering, with concentrations in mechanical design or manufacturing; and an MS in Mechanical

Michigan Tech Gears Up for Winter Carnival

Submitted by the News Bureau

Preparations have begun for Michigan Tech's 79th annual Winter Carnival February 3-10. The Blue Key National Honor Society coordinates the weeklong festival of snow, which involves students, faculty, alumni, and local community members.

This year's Winter Carnival theme is "Greek Myths Unfold in a Wondrous Land of Cold." Winter Carnival's traditional competitions, including broomball, ice bowling, speed skating, ice tug-o-war, snow volleyball, dog sled racing, cross country skiing, downhill skiing, and snowboarding, begin February 1 and continue through February 9.

The coronation of the Winter Carnival Queen kicks off the week's festivities on Saturday, February 3. The queen is chosen based on a talent competition and series of interviews and will reign over the week's events.

The All-Nighter, a highlight of Winter Carnival, begins Wednesday, February 7, at 4:00 p.m. It marks the beginning of the one-nighter snow statue construction and the last chance for putting finishing touches on the larger statues, which students began constructing on January 15. These elaborate designs of snow and ice often extend several

Engineering. Starting in June, the programs will be open to the public. The University has a history of providing similar degree programs for employees at General Motors, Ford, and other corporate clients.

Most courses will be taught through the ME-EM department, but electrical engineering and materials science and engineering classes will also be offered. Students enrolled in the BS program take the required lower-division classes at nearby colleges or receive credit for courses taken in the past.

"Michigan Tech is very pleased to be partnering with MSX International on this distance-learning program, as well as providing co-op students at the company's new office in Houghton," President **Curt Tompkins** said.

MSX opened a new Houghton office in the UPPCO building last summer to service Ford Motor Company-related engineering and design projects. The business employs MTU undergraduates in co-op positions.

stories high. During the All-Nighter, various MTU groups and organizations provide food and entertainment throughout the campus. Statue judging takes place Thursday morning. Also on Thursday, the stage revue competition will be held at 4:00 p.m. and 8:00 p.m. at the Rozsa Center for the Performing

Arts. It features eight original skits, written and performed by various MTU student organizations.

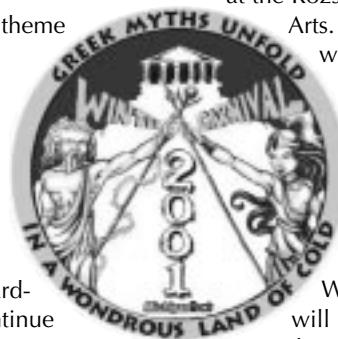
The hockey team will face Minnesota-Duluth in the MacInnes Cup Series Friday at 7:00 p.m. and Saturday at 5:00 p.m. at the SDC

An awards ceremony for all Winter Carnival competitions will be held Saturday afternoon.

Saturday evening, a fireworks display will be set off at Mont Ripley at 8:45 p.m., followed by the Sno-Ball, a semi-formal dance featuring live music in the Memorial Union Ballroom.

The MTU fine arts department will present Shakespeare's *A Midsummer Night's Dream*, with shows February 1-2 and February 9-11.

For more information about Winter Carnival, including live streaming video of statue construction from one of MTU's new StatueCams, log on to www.mtu.edu/carnival/2001. You may also contact Blue Key at 487-2818.



Quality Tips from CPDQI

Free Management Library

Submitted by Becky Christianson, director, Center for Professional Development and Quality Improvement

The Center for Professional Development and Quality Improvement (CPDQI) supports excellence at MTU by providing opportunities for learning, quality improvement, and knowledge exchange. Since it was formed eight years ago, the center has offered more than 120 workshops and has developed a library of books, videos, and audio tapes on a variety of subjects, including supervisory skills, time and stress management, leadership development, and effective interviewing skills. Over the next few months, some of the resources that we have available for campus use will be highlighted in *Tech Topics*.

Information from a number of Internet sites has been incorporated in the sessions offered by the center. One such site that is quite comprehensive is "The Free Management Library" at <http://www.managementhelp.org/>. Some of the topics include business planning, interpersonal and writing communications, customer satisfaction and service, group skills, leadership and management development, organizational change, strategic planning, and supervision.

Many departments have used the center for strategic-planning or team-building sessions. To make an appointment, or for information about contents of our library, contact Becky Christianson or Sharon Tyrell at 487-2416. Materials can be picked up at the center, located at 224 Blanche Street, or sent and returned through campus mail.

Student Poem Wins MLK Essay Contest

Undergraduate **Sally Brunk** has won the Dr. Martin Luther King Jr. Essay Contest for her poem "Remember Him." Brunk is a junior in liberal arts with a concentration in English and lives in Baraga. The prize carries a \$100 award. You can read "Remember Him" at www.edopp.mtu.edu/outreach/aa/contest_winner.htm

MichiganTech

Bill Curnow, executive director, University Relations
Marcia Goodrich, *Tech Topics* editor
Tech Topics Web site: www.mtu.edu/level3/ttpics.html

To get *Tech Topics* via e-mail, send a message to MAJORDOMO@MTU.EDU saying `SUBSCRIBE TECH-TOPICS-L`. Information to be included in *Tech Topics* should be submitted to the *Tech Topics* editor in one of the following ways:

- By e-mail to ttpics@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.

SOLO: A Model for Programmatic Assessment

Center for Teaching, Learning, and Faculty Development By William Kennedy, director



Cognitive psychologist John Biggs suggests that one common problem with most degree-level assessment programs is that they use the wrong tools to measure the wrong things. Biggs contends that the net effect of most assessment programs may be to encourage lower-order learning and "teaching to the test," thus lowering the quality of the educational experience. According to our emerging strategic plan, MTU's mission is educate students who can create the future; a goal that goes well beyond educating students who can perform well in their disciplines. If our vision is to foster our students' inclination and capacity for creativity, invention, and innovation, then our programmatic assessment efforts should measure growth toward this overarching goal.

Biggs believes that most learning models are superficial and overly mechanistic. Real learning, according to Biggs, is a transformational experience: learners change in predictable and measurable ways throughout the learning process. Through learning, students come to understand and interact with the world and differently and express themselves in characteristically different ways. Biggs argues that identifying how and why learners have changed is one potentially profitable venue for programmatic assessment programs.

Biggs has proposed a learning taxonomy consistent with these views. His SOLO (Structure of the Observed Learning Outcome) model identifies five stages of competence that students typically experience as they learn. The first three stages of the model are quantitative, focusing on the students' acquisition of increasingly sophisticated and powerful concepts and procedures associated with the body of knowledge. Students begin at the prestructural level, where learning may seem largely irrelevant

and unrelated to other ideas that they have previously employed. Students next progress to a unistructural level, where one relevant aspect or tool takes root and can be gainfully employed by the student. Then, students commonly move onto a multi-structural level of understanding, where they see the value of collecting additional tools to perform a wider range of discrete disciplinary tasks.

Levels four and five involve qualitative change. In level four, the relational level, students begin to become aware of the relationships between the concepts and protocols that they have previously mastered as discrete things. They can perform tasks like comparing and contrasting alternate explanations, explaining likely causes, analyzing situations and discussing the pros and cons of various strategies, and relating and applying what they have learned to new and unexpected challenges within the disciplinary framework. Eventually, students see that the structures they have mastered within the discipline are analogous and applicable to diverse challenges in domains outside their discipline. Biggs calls level five the "extended abstract" level of mastery.

Using Biggs' concepts, students who attain the most developed (highest level) kind of thinking in the context of their discipline might be averaged into the assessment as instances of A-level development. Student performances that exhibit what faculty consider barely minimal acceptable levels of development become Ds. B-level performances might be those that give some evidence of more abstract reasoning, while C students might demonstrate sufficient mastery of discrete ideas and concepts but little or no evidence of the qualitative shift associated with levels four and five.

Well-designed assessment tools that reveal our graduating students' levels of intellectual progress could then help determine which areas of curricular stimulation need to be rethought or improved. Biggs argues that this kind of holistic eval-

uation of Darwinian evolutionary theory and the philosophy of naturalism.

"By asking the right questions, Phil Johnson brilliantly exposes the fault lines of the reigning Darwinian orthodoxy and challenges its disciples who preach philosophical naturalism under the guise of science," said Charles Colson, author of *How Now Shall We Live?* "The Wedge is a must read. Witty, engaging and insightful, it cuts to the heart of the most crucial issue of our day." Johnson's lecture is free and open to the public. For more information, please contact John Jaszczak, jaszczak@mtu.edu.

Darwin Critic Here January 28

Phillip E. Johnson, author of *Darwin on Trial* and *The Wedge of Truth*, will give a lecture on intelligent design on Sunday, January 28, at 4:00 p.m. in Fisher 135.

Johnson is a graduate of Harvard and the University of Chicago Law School. He served as law clerk for United State Supreme Court Chief Justice Earl Warren and has taught law at UC Berkeley for more than thirty years. He has become a leading spokesperson for the intelligent design movement, which argues that it is possible to find evidence for design in the universe. His books *Darwin on Trial*, and, more recently, *The Wedge of Truth*, cri-

ticque Darwinian evolutionary theory and the philosophy of naturalism.

Johnson's lecture is free and open to the public. For more information, please contact John Jaszczak, jaszczak@mtu.edu.

Karol Pelc: Surviving the Holocaust

(Editor's note: The following is reprinted by permission of the U.P. Catholic. It appeared in the January 5 edition as part of a three-part series featuring local Catholics who survived the Holocaust in Poland.)

Professor **Karol Pelc** notes the date on the calendar. "September first," he says. "Sixty-one years to the day, when World War II started in Poland.

"At that date, my future was determined," he muses, settling into a chair in his well-worn office in the School of Business and Economics. "Everything changed. Suddenly, everything was broken."

Pelc was four years old when the German blitzkrieg swept over his native Poland. Less than three weeks later, the Soviets also invaded. "My father was taken into the army, and I never saw him after that," he says. "He died in a Russian camp, shot as a POW."

Auschwitz. Dachau. Treblinka. These icons to evil are bound forever in the public mind to the Nazi's final solution, the extermination of the Jewish people. Half of the six million Jews murdered in the death camps were from Poland. Yet they were not the Nazis' only targets.

In countless Polish cities and towns, from Warsaw to nameless hamlets, the Nazis carried out a campaign of terror against the non-Jewish population. Most of them were Catholic, but the fact of their common Christianity had no relevance. According to Nazi beliefs, Poles were subhuman, fit only for manual labor in service to the master race. And, in due time, if their documented strategies are to be believed, the Nazis planned to send all the Poles to the same death camps that were even then swallowing up the Jews. Many thousands did not survive.

"Of the educated classes in Poland, something like 70 percent were killed," Pelc said. "Chunks of Poland were 'ethnically cleansed'—everyone who was able was rounded up and taken as slave labor for the German war machine."

In 1939, everyone thought the war would be over soon. It wasn't. Pelc's mother placed him with relatives in another town for two years, until she could find a stable job in the city of Czestochowa, famous for its monastery and shrine to the Black Madonna.

Then six years old, Pelc would ordinarily have started school. But under the German occupation, all classes were eliminated except for those dealing with manual labor, he said. "It was just elementary physical work, like how to hammer a nail. They were training people to be laborers. . . They were trying to create a sense that we were an underclass. You are nothing, just a slave, and you have to follow orders."

Despite the law, Pelc was sent to an underground school, which he attended until the end of the occupation. "The classes were in total secrecy," he says. "There were six or

eight students, and we met with the teacher in somebody's home."

There was some risk in this. "Any teacher involved would be sentenced to death, and the same thing would happen to the family that provided the room," Pelc recalls. "We had meetings in different places, and we never knew in advance where we would meet, to prevent leaks."

At the age of eight, Pelc started to learn piano. "I remember when my teacher gave me one or two pages of Chopin and said to be very careful," he says. "One fact that is not well known, but which is known by every Pole, is that it was forbidden to play Chopin. So for me it was a duty to learn, an act of insurrection."

Students learned to play dumb if they were questioned by Germans on the street, to say they were going to play with their friends. Pelc had already refined this skill—German officers had bivouacked at his relatives' home, and even as a four-year-old he had learned to keep his mouth shut. Older cousins served in the underground Polish Home Army, and the family shuttled provisions to soldiers hidden in the forest.

"Since then, I've learned to keep things confidential, because the life of your family can depend on it," he says.

At the age of nine, Pelc became an altar boy. "I was expected to serve at the early morning service, at about 6:30," he says. "I had to walk from my home, about one mile to the chapel, through the empty streets, and during Advent it was dark.

"I met this German patrol in the same place, every day. They never stopped me, but every time I would be afraid. I knew that they were a foreign force, and they were killing us."

Roundups in the streets seemed to happen almost daily. "If you were young and strong, there was always a chance you could be taken for slave labor," Pelc remembers. "I was afraid my mother would be taken, and there were always rumors. The Gestapo would surround a neighborhood, take some and leave others. The idea was to create fear."

One day, when Pelc was returning home from his underground class, he was stopped by German police and forced to go down another street. "They were collecting a crowd," he says. "They were pushing people to a place of execution."

The Germans took Polish hostages to kill in retaliation for attacks on their military forces, and just such an execution was then

under way.

"Twenty men were standing under the wall," he said. "Because I was small, they put me in front of the crowd to see it." From ten feet away, he watched the men being shot. "It was terrible, the bodies falling, and I was scared to death," he remembers, looking back more than fifty years. "But I had to, or I would have been shot, too. That's the terror that comes from physical domination."

In 1943, the Germans began emptying the Jewish ghettos. Many residents went to their deaths, while others were diverted to work as forced labor. One such couple had a young daughter, and sympathetic Poles contacted Pelc's mother and asked if she could take the child. "Otherwise, she could be sent to the camps," he says. His mother said yes, she would take care of her.

"Irene was introduced as the daughter of a cousin from another town, and she called my mother Aunt Kamilla," Pelc says.

It was something of a stretch, particularly in those times. "Irene was three-and-a-half years old, very beautiful, and had a very typical Jewish face," he said, with her big, brown eyes, prominent nose, and dark hair.

Fortunately, the Pelc's also had dark hair, so the deception, if not seamless, certainly bordered on the believable.

To help assure her safety, Kamilla Pelc asked a priest to forge Irene's birth certificate. "He risked his life to do this," he said. "Anyone who helped the Jews was punished by the death penalty—Poland is the only country in Europe where the Germans had such a law.

"So my mother was risking her life, my life, and the neighbors'," he said. "We lived in a courtyard, with twenty families all looking at each other. They all could have been held responsible for not reporting Irene. Forty people risked their lives."

Several years ago, Pelc's wife, Ryszarda, began pressing him to have his mother declared "Righteous among the Nations" by the state of Israel, a designation reserved for those who risked and often lost their lives helping Jews during the Holocaust. At first, he was reticent.

"My mother didn't do it for an award," he notes. "She did it because of her religious faith, that she should help people and love your neighbor as yourself. But my wife thought we should do it to document what she and other people did on behalf of the Jews in Poland, and now, I think she was right."

In 1999, six years

There was some risk in this. "Any teacher involved would be sentenced to death."

Continued on page 4

Tech Tea: Volunteers Making a Difference

Submitted by University Cultural Enrichment

What is it like to be alone and scared? Worried about the challenges that the winter will bring, about the safety of your life and that of your family? What is it like to struggle to live in a house with no heat and dangerous wiring? What is it like to be a kid who really wants that swimming merit badge, but can't find anywhere to get it?

Whether it is Habitat for Humanity building a house for those who can't afford a safe one, the Barbara Kettle Gundlach Shelter home offering a safe place for women and families in abusive situations, or Alpha Phi Omega fraternity manning the SDC pool for Scouts, there are dedicated volunteers in our campus and local communities ready, willing, and able to help. Representatives of these organizations, just three out of many in our community, will talk about their work and its rewards at Tech Tea Time on Wednesday, January 31, at 4:00 p.m. in the Memorial Union Alumni Lounge. The event is free and open to the public.

There are now two local chapters of Habitat for Humanity, a national nonprofit organization that "seeks to eliminate poverty housing and homelessness around the world, and to make a decent shelter a matter of conscience and action." The MTU Chapter's roots go back to 1993 when students participated in a Collegiate Challenge, an alternative spring break in which students helped with house building in hurricane-ravaged Dulac, Louisiana. Last summer, the chapter completed construction of their first low-cost, energy-efficient house in South Range, and they continue to participate in the Collegiate Challenge each spring.

Volunteers at the Barbara Kettle Gundlach shelter help women and children in troubled family situations. They serve as empathetic listeners and have a number of support people to help and advise when needed. The organization is committed to ending all forms of violence in personal relationships and within the community, recognizing that violence at home is a crime impacting the whole community's health.

Since 1947, Alpha Phi Omega National Service Fraternity has engaged in projects that serve young people, the campus, and the community. Members work with local Scout troops and on the APO Student Directory; they shovel snow for seniors, take care of cemetery clean-ups, and perform a host of other services.

This Tech Tea Time should be of interest to potential volunteers and anyone who wants to learn more about the community. Tech Tea Time is presented by University Cultural Enrichment. Call 487-2844 for further information or to propose a future presentation.

Midsummer Night's Dream Comes to the Rozsa

Submitted by the Department of Fine Arts

For Winter Carnival, the Department of Fine Arts is staging one of the most popular entertainments of all time, Shakespeare's play *A Midsummer Night's Dream*, on the Rozsa Center's Klungness Stage, and they're pulling out all the stops. "This is a wonderful show, with spectacular set, lights, sound, music, dancing, costumes, and a great cast. We can't wait to show the community what Michigan Tech students can do in this state-of-the-art theater," says fine arts chair **Milton Olsson**.

Five performances are scheduled: Thursday and Friday, February 1–2, plus Friday and Saturday, February 9–10, at 8:00 p.m., and a matinee on Sunday, February 11, at 3:00 p.m. Associate Professor **Debra Bruch** (Fine Arts) is the director and overall designer of the production.

A Midsummer Night's Dream appeals to all ages. Shakespeare created three different, intersecting worlds, most famously the woodland fairies with the impish trickster Puck, plus the rustic world of ordinary villagers and the lively lords and ladies of the Duke's court. Bottom the Weaver and his band of villagers seek privacy in the forest to practice a skit for the Duke's wedding celebration. Night falls and Puck appears, playing outrageous magical tricks on Bottom and anyone else he finds in the woods, egged on by tyrannical Oberon, king of the fairies. Four star-crossed young lovers from the Court and Titania, the fairy queen herself, fall victim to confusions both hilarious and troubling before the new day breaks and the Duke brings all to rights. Audiences marvel at the sheer magic and fun of *Midsummer*, even as they admire Shakespeare's insight into issues of justice and power in courtship and marriage.

Parlez Français Tuesdays at the Campus Cafe

Do you know a little French? Want to practice it in an informal setting? The French faculty members from the humanities department are hosting a weekly French conversation table, Le Cafe Français, each Tuesday between 2:00 and 3:00 p.m. in the back room of the Campus Cafe, in the basement of Wadsworth Hall.

Skill levels range from beginner to native speaker, and participants include students, faculty, and staff. Shy people are welcome to just come and listen! For more information, contact Heidi Bostic, hlbostic@mtu.edu. *Venez tous!*

Karol Pelc Continued from page 3

after they began the process, Pelc went to Chicago to receive the award on behalf of his late mother. Irene, who is now a sociology professor in France, provided important testimony on behalf of her "Aunt Kamilla." Miraculously, Irene not only survived the occupation but was also reunited with her parents, who were among the few lucky Jews to live through the Holocaust.

Many Polish children were not so lucky. And those who did survive were changed forever. "I consider myself to be a Holocaust survivor. There is some strength that comes from this kind of experience," Pelc said. "You know you can survive in very hard conditions."

And you receive a blessing, a certain rare and irrevocable clarity of vision.

"You know," Pelc says, "that the knowledge you've been given is the only thing they can't take away from you."

Midsummer features a cast of fifty, including John Eisbrener and Claudia Stadius as Oberon and Titania; Michael McKellar as Puck; Jeremy Rahn and Amanda Sproule as Duke Theseus and Hippolyta, Queen of the Amazons; Karen Webster, Neil Onifer, Brian Fiander, and Carolyn Larson as the young lovers; and Kevin Wilson as Bottom the Weaver. The cast includes many veteran actors, both MTU students and community members, plus some newcomers to the stage who range in age from preschool to adult.

MTU's production features sets jointly designed by Bruch and technical director **Paul Aneshansel**, with lighting by Assistant Professor **Mary Carol Friedrich**, and sound design by Charles White. Sets include the magical midnight woods which fill the stage. For scenes in the Duke's castle, a special drop, or painted canvas, reproduces an eighteenth-century Italian design that pioneered the use of perspective on stage.

Midsummer introduces the new Michigan Tech Dance Company, with choreography by Laura Aneshansel, director of the Superior School of Dance. White wrote and recorded original music. Costume design, including unique fairy costumes, is by Friedrich, with assistance in construction from student costumers and area artists. Members of the MTU chapter of the Society for Creative Anachronism have assisted with details including medieval weapons and fight choreography.

More information is available from the fine arts office, 487-2067. Tickets are available from Rozsa Center Ticketing Services (487-3200), other Michigan Tech box offices, the Calumet Theatre, and on the Web at <http://www.tickets.mtu.edu> for \$10 general, \$5 students.

Winter Driving: Get Ready for the Challenge

If icy roads are making you dread Keweenaw winters, here's a solution that doesn't involve moving to Santa Fe.

The Keweenaw Research Center is offering its KRC Winter Driving School every Saturday starting February 3 and running through the end of the winter season.

During the day-long class, you'll learn valuable tips and techniques to give you confidence when driving on snowy and ice-covered roads. You can try out your new

skills on rear-wheel drive, front-wheel drive, and four-wheel drive vehicles, provided courtesy of the driving school.

The classes are taught by professional driving instructors on a safe, enclosed course at the KRC winter test facility near the Houghton County Airport. Cost for the entire course, including time in class and behind the wheel, is only \$100—less than the deductible for most collision insurance policies. For more information or to register, call 487-2750.



February Computer Classes

Michigan Tech is offering the following classes in cooperation with dL Education. The cost is \$60 for half-day sessions, \$120 for full-day sessions. To register, send an e-mail to the Center for Professional Development and Quality Improvement at rwchrist@mtu.edu. Include the class(es) in which you want to enroll, your phone number, and account number to which the class(es) should be charged. dL Education is located in the E. L. Wright Plaza, Suite 201A at 801 N. Lincoln Drive in Hancock. The Plaza is located on Quincy Hill, just below Pat's IGA.

- Access level 1, Feb. 9, 9 a.m.-noon
- Access level 2, Feb 16, 9 a.m.-noon
- Access level 3, Feb 23, 9 a.m.-noon
- Excel level 1, Feb. 15, 8:30-11:30 a.m.
- Excel level 2, Feb. 15, 12:30-3:30 p.m.
- HTML, Feb. 27, 9 a.m.-4 p.m.
- PowerPoint, Feb. 22, 8:30 a.m.-3:30 p.m.
- Publisher, Feb. 13, 8:30-11:30 a.m.
- QuickBooks, Feb. 6, 9 a.m.-4 p.m.
- Windows level 1, Feb. 1, 8:30-11:30 a.m.
- Windows level 2, Feb. 1, 12:30-3:30 p.m.
- Word level 1, Feb. 8, 8:30-11:30 a.m.
- Word level 2, Feb. 8, 12:30-3:30 p.m.
- Word level 3, Feb 20, 8:30-11:30 a.m.

Princeton Prof to Talk on George Washington Bridge

Professor Jameson Doig, of Princeton University, will give a talk, "Engineering, Esthetics, and Politics: O. H. Ammann Builds the George Washington Bridge," on Tuesday, January 30, from 3:30 to 5:00 p.m. in M&M U113. Refreshments will be served.

In the world of civil engineering, O. H. Ammann stands out as one of the greatest bridge designers of the twentieth century. His George Washington Bridge (completed in 1931), a major achievement in itself, took him from obscurity to the first rank in his profession, and it shaped bridge-building throughout the world. Ammann's creativity also expresses itself in the longest arch bridge in the world, the Bayonne; and, in the 1960s, his Verrazano-Narrows Bridge set a new record for a suspension bridge.

Yet none of this could reasonably have been predicted from Ammann's early and middle career. He entered the US in 1904,

worked as an assistant on a series of bridges, and then in 1924, as he approached 45 years of age, found himself forced out by his mentor and joining the ranks of the unemployed.

Doig will show how Ammann used his willingness to take risks, his ability to build political coalitions, and his distinctive engineering and esthetic skills to jump from working on other engineers' designs to a dominant position in the field of civil engineering.

Doig is a professor of politics and public affairs at Princeton University. His many research interests include the politics of development and transportation in the New York region. Recent publications have examined the history of the Port Authority of New York and New Jersey and the politics surrounding the construction of the George Washington Bridge. For more information, contact Mary Durfee, 487-2115, mhdurfee@mtu.edu.



January

- 28 **Sunday**
4:00 p.m.—Phillip Johnson lecture on intelligent design—Fisher 135
- 30 **Tuesday**
4:00 p.m.—Jameson Doig, "Engineering, Esthetics, and Politics: O. H. Ammann Builds the George Washington Bridge"—M&M U113
- 31 **Wednesday**
4:00 p.m.—Tech Tea: Volunteers Making a Difference—Memorial Union Alumni Lounge

February

Black History Month

- 1 **Thursday**
8:00 p.m.—*Midsummer Night's Dream*—Rozsa Center
- 2 **Friday**
8:00 p.m.—*Midsummer Night's Dream*—Rozsa Center
- 9 **Friday**
7:05 p.m.—Hockey, Minnesota-Duluth at MTU—MacInnes Student Ice Arena
8:00 p.m.—*Midsummer Night's Dream*—Rozsa Center

POSITIONS AVAILABLE AT MICHIGAN TECH

Job descriptions will be available at 1:00 p.m. on Friday, or by e-mail at JOBS@MTU.EDU.

For a complete list of job openings, visit www.admin.mtu.edu/hro/postings/index.shtml

The following positions will be posted Friday, January 26, 2001, at 1:00 p.m. through noon, Friday, February 2, 2001, in the Human Resources Office.

Pavement Enterprise Manager—Civil and Environmental Engineering
Custodian—Facilities Management (AFSCME internal posting only)

University employees are reminded to apply in writing prior to noon, Friday, February 2, 2001, 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.