

## Excellence to the Mth power Godbole named best college math teacher in Michigan

By **Kalpna Godbole's** calculations, the honor came a little early.

"It was the last thing on my mind," she said. "I have so many more things I want to accomplish, I figured that if I were to get it at all, it would be later in my career."

Apparently, some people thought Godbole has accomplished plenty during the last fifteen years. A lecturer and director of first-year programs in the mathematical sciences

department, she has received the annual Distinguished College or University Teaching of Mathematics Award given by the Michigan section of the Mathematical Association of America. Nominated by her department, she was chosen from among the top college and university math teachers in the state.

"I was ecstatic," she said. "And on the other hand, it's a very humbling experience."

Godbole has long been ranked among the top teachers in the Department of Mathematical Sciences, being nominated for the department's Distinguished Teaching Award for last five years and winning three times. In addition, she has been nominated twice for the MTU Distinguished Teaching Award. She will receive the Michigan MAA award in May, and the honor qualifies her for consideration for the organization's national teaching award.

"She goes the extra mile for the students, and they respond in kind," Department Chair **Alphonse Baartmans** said. "She receives very high student ratings, and, on average, her students perform well above the norm on common tests and common finals."

In addition to her classroom skills, Godbole is heavily involved in outreach. "She's the ambassador for the department," Baartmans said. In addition to overseeing first-year programs, she is active in the Minorities in Engineering and Women in Engineering programs for high school stu-

dents. She spearheads the MaCH-1 program, which gives entering students an opportunity to bone up on their math during the summer before they officially enroll as freshmen. For local high school stu-

dents, she helped organize the Girls Enjoying Mathematics Workshop and the Mathematics Enrichment Program.

These accomplishments depend on the backing of her family, Godbole stresses.

"Without the support of my wonderful husband [Associate Dean of Sciences and Arts **Anant Godbole**], it wouldn't be possible," she said. "And my poor kids! Whenever I leave to attend an outreach program, they give me that there-goes-Mom-again look. They have been great, really understanding." And she also expressed her gratitude toward members of her department, especially Baartmans, for supporting both her and nomination and her career at MTU.

Godbole says she didn't start her career at MTU as an outstanding teacher. "I was such a baby when I came here—I knew nothing about teaching," she said. "Back in those days, they gave you a textbook and said here's the room, here's the time, go teach."

(Continued on page 5)

*Kal is an extraordinary teacher who can convince almost all of the ~150 students in college algebra, precalculus, or engineering statistics that not only is the material vital to their future careers, but also relevant to everyday experience.*

## Local restaurant owner donates land to MTU

Submitted by the News Bureau

Shing Huang, owner of the Ming Garden Restaurant in Houghton, has donated forty acres of land to Michigan Tech. The parcel is located in Portage Township adjacent to the University-owned Portage Golf Course.

**Kimera Maxwell**, executive director of development and the Michigan Tech Fund, said the property gift allows the University a great deal of flexibility and options in long-term planning as it relates to preserving and maintaining the institution's holdings.

"We're very grateful to Mrs. Huang and her husband, Dr. Ming Huang, a local physician, for their great show of generosity," said Maxwell. "Support for Michigan Tech comes in many forms, and this gift of land is a great way to help the University ensure the integrity of its current physical plant as well as have increased options for planning for the future."

"We're especially grateful to have leading members of the business and medical areas of the community step forward with this gift at a time when the University is making its plans for the twenty-first century."

"We are pleased to be able to make this gift to Michigan Tech," said Mrs. Huang. "We have enjoyed getting to know many members of the University family and have been pleased with the leadership at Michigan Tech. We wanted to show our support and appreciation for the role the University plays in our community. This was a good opportunity for us to do so."

## Morrison to give chem engg talk January 28

Guest lecturer Philip Morrison Jr. will give a talk, "In Situ Fourier Transform Infrared (FTIR) Characterization of the Flame Synthesis of TiO<sub>2</sub> Particles," on Thursday, January 28, at 2:00 p.m., in Chemical Sciences 201. All members of the University community are invited.

Morrison is an assistant professor of chemical engineering at Case Western Reserve University.

## Board approves MPSERS severance pay phase-out

The Board of Control agreed January 22 to an administration plan that will end the MPSERS severance pay program within the next 2-1/2 years.

Currently, MPSERS employees receive 2 percent of their current salary times years of service at MTU at retirement if they have accumulated 80 points (age plus years of service). The Board voted to end the severance pay benefit as of June 30, 1999. However, eligible MPSERS employees can still receive the benefit if they retire no later than June 30, 2001, as long as they notify the University by June 30, 1999, of their intention to retire. Human Resources will be sending information on the issue to all MPSERS employees.

The severance-pay benefit was originally designed to equalize the TIAA-CREF and MPSERS retirement packages when the TIAA-CREF retirement health-care benefit was adopted. Since then, the cost of funding MPSERS has increased dramatically while the TIAA-CREF retirement health-care benefit is being phased out.

*The heart has a long memory.*

—DEBBIE FRANTI, LAST SATURDAY IN CALUMET

## Local microbiologists organizing "twig" of society's state branch

Local microbiologists are organizing a local chapter, or "twig," of the Michigan Branch of the American Society for Microbiology.

"The Michigan branch meets in Saginaw, Detroit, and Lansing, but there are a lot of microbiologists up here," Associate Professor **Susan Bagley** (biological sciences) said. "We thought, why not have something in the U.P.?"

The Twig organizers are associated with Michigan Tech, Northern Michigan University, Marquette General Hospital, and the Michigan Department of Community Health, but all U.P. microbiologists are invited to participate, including students.

"The Twig will provide networking opportunities for anyone interested in microbiology—teachers, clinicians, students, engineers, research scientists, etc.," Bagley said. Microbiologists from industry—such as pulp and paper mills—and environmental businesses and organizations are welcome, along with clinical and medical microbiologists. Networking can be very useful, she said. "Who knows who has the equipment you might need, or who might be able to help with an ongoing problem?"

Twig organizers expect to provide continuing education and give students a chance to find out more about different aspects of their intended profession. In addition, the organization can provide a forum for prospective employers and employees to get to know each other.

"And we are fairly isolated up here, so the Twig will give microbiologists a much-needed chance to get together and talk with others in the field," Bagley said.

For more information on the Upper Peninsula Section of the Michigan Branch of the ASM, contact Bagley (stbagley@mtu.edu, 487-2385) or William Sottile, Upper Peninsula director for the Michigan Department of Community Health (sottilew@state.mi.us, 482-3011).

## MichiganTech

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

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 [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.

## New logos for old! Don't forget to update your documents

Michigan Tech's new logo has been popping up all over campus, replacing the old MTU parallelogram with a much clearer image of the University. However, during this turnover period, the old logo has been sneaking into a few new publications where it doesn't belong. Here's what you can do to help.

If you are planning to reprint an old publication, check it for the old logo and replace it. For the sake of thrift and common sense, the University doesn't require departments to throw out documents that have the old logo on them. But departments shouldn't enact extraordinary measures to extend the life of the old logo, either.

Therefore, don't make copies of documents bearing the old logo, either on your department copiers or through print shops. University Relations is providing departments with the new letterhead design at no cost. So, as you run out, you can replace old letterhead just for the price of the printing.

For more information on logo use, or to get an electronic image of the logo, contact Arlene Johnson in Design and Publication Services at [ajohnson@mtu.edu](mailto:ajohnson@mtu.edu) or 487-2360.

Center for Teaching, Learning,  
and Faculty Development



### Teaching Tips

## Learning from a student's perspective

By William Kennedy, director

Paul Ramsden argues in *Learning to Teach in Higher*

*Education* that real, substantial learning is about "changing the ways in which learners understand the concepts and methods that are characteristic of the discipline or profession they are studying."\* Ramsden, professor at the Institute of Higher Education in Brisbane, builds his case on a differentiation between deep and surface student learning. He concludes "large numbers of students appear to be learning an imitation of at least some of the disciplines they are studying, a counterfeit amalgam of terminology, algorithms, unrelated facts, 'right answers,' and manipulative skills that enable them to survive the process of assessment."\* Deep learning, on the other hand, is achieved through a student's intention to truly understand and meaningfully conceptualize their area of study and not simply to pass course requirements. In order to move toward deep learning, Ramsden holds that we must carefully examine learning from a student's perspective.

A central proposition of Ramsden's work is that students adapt to what they perceive their teachers expect of them. Talking to students about the importance of deep learning doesn't help if, in their perceptions, class requirements actually emphasize surface learning. Thus, the true intentions of an educational system can be gleaned by carefully examining its assessment procedures. Benjamin Bloom's early work and many others examining the content of college examinations have persistently demonstrated that, though we talk a great deal about higher-order learning and critical thinking, our assessment instruments and procedures tend to emphasize lower-order achievement (memorization of facts,

theories). The point? If you want deep learning, you must develop assessment tools to evaluate the degree of deep learning and reward students for the effort.

Another key element in encouraging students to experience deep learning is effective instruction. Effective instruction, in this sense, goes well beyond whether or not the instructor is enthusiastic or entertaining. Rather, Ramsden reviews research findings that suggest the relationship between the student and professor may be key. He associates deep learning with a recurring factor variously labeled "student-centeredness," "respect for students," or "rapport," along with related aspects of teaching such as "the ability to explain things clearly, explain requirements fully, provide a reasonable workload, and encourage student independence."\* Ramsden also explores the effects of curricular structures, departmental goals, and the ethos of the entire institution as having effects on the quality of student learning. These overarching influences also create different contexts for learning.

In summary, Ramsden argues that surface approaches to student learning are encouraged by (1) assessment methods emphasizing recall or trivial application of procedural knowledge; (2) conflicting messages about stated goals and actual rewards; (3) curricula that are jam-packed with more and more material; and (4) less "quality interaction" between faculty and students. Conversely, deep learning can be encouraged by (1) using teaching and assessment methods that focus on active learning; (2) stimulating and considerate teaching; (3) developing carefully thought-out and clearly stated academic expectations; and (4) creating opportunities for students to exercise responsible choice in the method and content of their studies.

\* Paul Ramsden, *Learning to Teach in Higher Education* (Rutledge, NY, 1992)

## Computer classes

The following classes will be offered through dL Computer Consultants. Cost of the workshops is \$60 for half-day, \$115 for full-day sessions. Sessions are limited to six participants. Custom classes can be scheduled for at least three participants. For more information or to register, contact Becky Christianson, Center for Professional Development and Quality Improvement, at 487-2416 or rwchrist@mtu.edu

If you have registered for a course and cannot attend, you must cancel forty-eight hours in advance or you will be billed full price for the course. You will have the option of attending the same class the following month at no additional charge.

- Access, Level 1, Tuesday, February 9, 9 a.m.–noon
- Access, Level 2, Thursday, February 11, 9:00 a.m.–noon
- Access, Level 3, Thursday, February 18, 9:00 a.m.–noon
- Access, Application Development, Thursday, February 25, 9:00 a.m.–4:00 p.m.
- Excel, Charts, Wednesday, February 10, 1:00–4:00 p.m.
- Excel, Level 1, Friday, February 12, 9:00 a.m.–noon
- Excel, Level 2, Friday, February 12, 1:00–4:00 p.m.
- HTML, Tuesday, February 23, 9:00 a.m.–4:00 p.m.
- Intro to the Internet, Tuesday, February 9, 7:00–9:00 p.m.
- Intro to the Internet, Saturday, February 13, 9:00–11:00 a.m.
- Intro to the Internet, Wednesday, February 17, 7:00–9:00 p.m.
- Intro to the Internet, Saturday, February 20, 9:00–11:00 a.m.
- PageMaker, Wednesday, February 17, 9:00 a.m.–4:00 p.m.
- PowerPoint, Thursday, February 4, 9:00 a.m.–4:00 p.m.
- Publisher, Tuesday, February 16, 1:00–4:00 p.m.
- QuickBooks, Thursday, February 18, 1:00–4:00 p.m.
- TurboTax, Tuesday, February 23, 1:00–4:00 p.m.
- Windows 95, 98, or NT, Level 1, Friday, February 5, 9:00 a.m.–noon
- Windows 95, 98, or NT, Level 1, Friday, February 26, 9:00 a.m.–noon
- Windows 95, 98, or NT, Level 2, Friday, February 5, 1:00–4:00 p.m.
- Windows 95, 98, or NT, Level 2, Friday, February 26, 1:00–4:00 p.m.
- Word, Level 1, Friday, February 19, 9:00 a.m.–noon
- Word, Level 2, Friday, February 19, 1:00–4:00 p.m.
- WordPerfect, Level 1, Tuesday, February 16, 9:00 a.m.–noon

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by clicking on "Tech Topics."

## Local-history grants available for archives users

The University Archives and Copper Country Historical Collections is offering Local History Grants for the 1998–99 academic year. Grants will be in the range of \$50–\$150 and support local projects that use the Archives collections. Grant funding is provided by the Friends of the Van Pelt Library.

The grants will support projects done on behalf of a local, nonprofit organization or governmental agency, such as a local historical society, museum, educational institution, or municipal organization. Projects must have a public history component, such as creation of a pamphlet or exhibit, use in a classroom or interpretive program, or other projects that share historical information with

the general public. Grants are intended to assist local agencies in developing new programs, underwrite photographic duplication, or act as matching monies for projects undertaken by qualifying agencies.

Research areas include the six counties of Michigan's western Upper Peninsula; industrial history, particularly copper mining and its related industries; social history, including workforce issues, immigration and ethnicity; urban and community development along the Keweenaw Peninsula; transportation; and the environment.

Review of applications begins February 15. For more information and an application form, contact Erik Nordberg at 487-2505.

## Habitat for Humanity Shack Sit February 1–4

The Michigan Tech chapter of Habitat for Humanity will be holding its annual Shack Sit Monday-Thursday, February 1–4. Its goal is to raise campus and community awareness of the need for affordable housing.

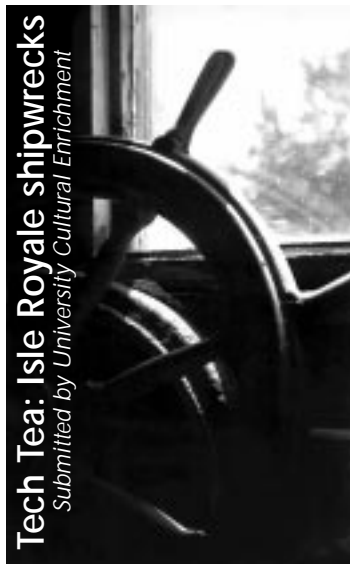
Members will sit in a roughly constructed shack on the MTU campus for a total of forty-four hours over the four-day period. Pledges have been taken by members for the number of hours they sit, and donations will be accepted at the shack site near the Memorial Union.

The Michigan Tech chapter is part of Habitat for Humanity International, which seeks to eliminate poverty housing from the world and to make decent shelter a matter of conscience and action.

Proceeds from this year's sit will go toward the chapter's spring break trip to Meridian, Mississippi, as part of Habitat for Humanity's Collegiate Challenge. They will work with the Lauderdale County Habitat affiliate on building projects. For more information, call 482-9290.

## On the road

Associate Professor **Kee Moon** (ME-EM) presented a paper, "A General Algorithm for Phase Shifting Interferometry Using Lissajous Figure," coauthored by ME-EM PhD graduate **Yiding Wang** (Hutchison Technology, Inc.), at the American Society of Precision Engineering (ASPE) Conference held October 24–29 in St. Louis, Missouri. Graduate student **Weimin Qu** (ME-EM) presented a paper, "The Effect of Modulation on Single Scratch of Glass," coauthored by Assistant Professor **Michele Miller** (ME-EM).



## Tech Tea: Isle Royale shipwrecks

*Submitted by University Cultural Enrichment*

Liz Valencia, cultural resource manager at Isle Royale National Park, will present a slide program on Isle Royale shipwrecks at Tech Tea Time on Wednesday, February 3, at 4:00 p.m. in the Memorial Union Alumni Lounge. Valencia is involved in shipwreck management from land, as well as in the hands-on aspects as a member of the park scuba team. Her program will include stories about the major wrecks within the boundaries of Isle Royale National Park, along with some stories of other mishaps. She'll also feature some of the recreational scuba diving opportunities in the park. Tech Tea Time is open to all, and there is no admission charge.

"Treacherous reefs and the unpredictable, icy-cold waters of Lake Superior around Isle Royale have claimed a number of ships over the last century," says Valencia.

"Although silenced now, the shipwrecks evoke stories of great tragedy and loss of life and property, as with the

*Algoma* wreck in which forty-five passengers and crew were lost. But disaster sometimes stimulates feats of heroism, such as brave James McCallum, a deckhand on the *Monarch*, who managed to get ashore in a blinding snowstorm to secure a line that would save all but one on board the ship." There are ten major shipwrecks within Isle Royale National Park and numerous other smaller sunken vessels, strandings, and accidents.

For more information, call University Cultural Enrichment, 487-2844.

## News you can use

### Five steps to master stress

To handle stress effectively, you need to be physically prepared to meet the challenges you encounter every day. Are you?

#### 1. Do you smoke?

Smoking doesn't calm you down. And the long-term effects of smoking are physical stressors you don't need.

#### 2. Do you get enough sleep?

Sleep is one of the best stress reducers around. It's the ideal time to recharge your batteries, both physically and mentally.

#### 3. Do you eat nutritionally balanced meals?

Poor eating habits can affect your energy level and your ability to handle stress. Eat a variety of nutritious foods, and limit the amount of fat, salt, and caffeine in your diet.

#### 4. Do you minimize your exposure to loud noise?

Prolonged, excessive exposure to noise can be stressful. So turn down the volume control on the TV and the stereo and wear ear protection—on the job and off—when necessary.

#### 5. Do you exercise?

When your body is responding to stress, it prepares to fight life-threatening situations or to flee from them. Help release that stress energy by walking, running, biking, or any other aerobic exercise. Of course, before you begin any exercise program, talk to your physician. They can help you determine the best exercise plan for your level of health and fitness.

## In print

Professor **James Riehl**, doctoral student **Christine Maupin** (chemistry), David Parker, and J. A. Gareth Williams (University of Durham) published an article, "Circularly Polarized Luminescence from Chiral Octadentate Complexes of Yb(III) in the Near-Infrared," in the *Journal of American Chemical Society*, Vol. 120, 1998. Riehl, Maupin, and Parker, along with Rachel Dickens, Judith Howard, and Janet Moloney, (University of Durham), Robert Peacock (University of Glasgow), and Giuliano Siligardi (King's College London), published an article, "Ground and Excited State Chiroptical Properties of Enantiopure Macrocyclic Tetranaphthyl Lanthanide Complexes: Controlled Modulation of the Frequency and Polarization of Emitted Light," in *New Journal Chemistry*, 1998.

Assistant Professor **Jeff Burl** (electrical engineering) has published a textbook, *Linear Optimal Control: H2 and H Methods*, which covers the analysis of control systems, H2 (linear quadratic Gaussian) optimal design, and H(infinity) optimal design. Professor Roberto Cristi from the Naval Postgraduate School states that Burl's book "is the only book on the market which is both pedagogically appealing and up to date."

Associate Professor **Barry Solomon** and Assistant Professor **Hugh Gorman** (social sciences) published a paper, "State-Level Air Emissions Trading: The Michigan and Illinois Models," in the *Journal of the Air and Waste Management Association*, Vol. 48, December 1998. Solomon also reviewed the book *Clean*

and *Competitive: Motivating Environmental Performance in Industry*, in the October 1998 issue of *Local Environment*.

Associate Professor **Sonia Goltz** and Instructor **James Northey** (SBE) published a paper, "Simulating the Variability of Actual Outcomes," in *Behavior Research Methods, Instruments, & Computers*, Vol. 30, No. 4 (1998).

Assistant Professor **Pat Heiden**, doctoral candidate **Yong Liu** (chemistry), Professor **Peter Laks** (SFWP), and master's graduate **L. Yan** (chemistry) published, "Use of Nanoparticles for the Controlled Release of Biocides in Pressure-Treated Solid Wood," in *Polymer Preprints*, 1997, Vol. 38, No. 2. Heiden, master's candidate **Qinghua Weng**, doctoral candidate **Xin Ni** (chemistry), and master's graduates **Jingjing Xu** and **Ashok Gopala** published, "Use of Oligomers as Non-Volatile Reaction Media," in *Polymer*, Vol. 39, No. 25. Heiden, Gopala, master's graduate **Haosun Wu** (chemistry), and Frank Harris (University of Akron) published, "Investigation of Readily Processable Thermoplastic-Toughened Thermosets. Part 1. BMIs Toughened via a Reactive Solvent Approach," in the *Journal of Applied Polymer Science*, Vol. 69 (1998). Heiden, Wu, and Harris published "Investigation of Readily Processable Thermoplastic-Toughened Thermosets. Part 2. Epoxy Toughened Using a Reactive Solvent Approach," in the *Journal of Applied Polymer Science*, Vol. 70, (1998). Heiden, Gopala, and Wu published "Investigation of Readily Processable Thermoplastic-Toughened Thermosets; Part 3. Toughening BMIs and Epoxy with a Comb Shaped Imide Oligomer A," in the *Journal of Applied Polymer Science*, Vol. 70 (1998).

## Roundtable February 3 on new teaching technologies

Information Technology and the Center for Teaching, Learning, and Faculty Development are holding a Teaching and Learning with Technology Roundtable, "Instructional Technology: Tools for Effective Teaching," on Wednesday, February 3, at noon in Memorial Union Ballroom A.

Multimedia projectors will be demonstrated, with information provided on features, options, requirements, and costs. Discussion will focus on Chickering and Ehrmann's work, "Implementing the Seven Principles: Technology as Lever."

Initially, new technology merely duplicated existing educational offerings. This roundtable will look at incorporating communication technologies to actually improve existing efforts.

To register for this luncheon, call the center at 487-2046 or e-mail klaronge@mtu.edu by Friday, January 29.

## Auditions coming for *Man of LaMancha*

Auditions are being held for the University Theatre production of *Man of La Mancha*, set for April 15–17 and April 22–24

Auditions are Monday, Wednesday, and Thursday, February 8, 10, and 11, at 7:00–10:00 p.m. The Monday and Wednesday auditions will be in Walker Theatre; Thursday auditions will be in Walker 209.

*Man of La Mancha* will be directed by **Richard Goldstein**, with music direction by **Jeffrey Bell-Hanson** and choreography by **Laura Aneshansel**. Most roles involve singing, and persons auditioning for a singing part should bring a prepared piece. While an accompanist is not required, a piano will be available if auditioners wish to bring an accompanist.

*Man of La Mancha* is the Tony-Award-winning musical by Dale Wasserman and Mitch Leigh whose best-known song is "The Impossible Dream." Based on Miguel Cervantes' epic novel, *Don Quixote*, it tells the story of a man who won't give up his lofty ideals even in the face of life's harshest realities.

More information on *Man of La Mancha* is available from the fine arts department, 487-2067.

## New staff

**John Wuori** has joined the Wadsworth Hall staff as a food service helper. He was previously manager of Portage Landing Restaurant. He is married to Deana Paoli Wuori, has a child, C. J., and lives in Chassell. He enjoys the outdoors, football, and coaching hockey with C. J.'s developing mites team.

**Melinda Jean Roberts** has joined the McNair Hall staff as a custodian. She was previously employed at the Ojibwa Motel in housekeeping. Roberts has three children, Troy Roberts, Davina Denomie, and Allyson Denomie, and lives in Baraga.

**Robert Rowe** has joined the ME-EM department as a laboratory technical training specialist. He was previously employed by the Stanton Township Schools in transportation maintenance. Rowe is a retired U.S. Coast Guard master chief machinist, is married to Tonya Rowe, and lives in Houghton. A married daughter, Mindy, was "kidnapped by a Tech grad and lives in Utah." Daughter Amy, also married, lives in Alaska.

Teaching resources have improved vastly, but it's the students who provide the best stimulus. "Our students are really inspiring," Godbole said. "We teach the same courses day after day, year after year, so it's the students who inspire you, who keep you going."

The feeling seems to be mutual, prompting the following comments from students in one of her precalculus courses:

*Kalpna is truly concerned with our success. She really seems to care and will do anything to help us.*

*She has a great personality, and she makes the class laugh, yet she's strict and has an easy way of making us learn.*

*She is the most passionate teacher I've ever had. She truly cares about us, which makes succeeding much easier.*

Her success comes in spite of the size of her classes.

"Kal is an extraordinary teacher who can convince almost all of the ~150 students in college algebra, precalculus, or engineering statistics that not only is the material vital to their future careers, but also relevant to every-

day experience," said her colleague Associate Professor **Allan Struthers** (mathematical sciences), in nominating her for the MAA award. "In addition to a superlative individual teaching record explaining the relevance of mathematics to large classes, Kal labors tirelessly to make systemic improvements in instruction." In particular, Godbole has worked to improve graduate students' teaching abilities, and, by retooling the first-year program, to make sure incoming students enroll in the math classes that best fit their abilities.

Godbole hasn't stopped trying to be an even better teacher. "We need our students to work harder," she says. "That's the number-one struggle I have now. Teaching has received a lot of attention at Michigan Tech, and the faculty are doing more and more, but many of the students are not there.

"I bought an educational psychology book, and I'm reading it," she said. "I never thought that would happen."

Bartmans says his department—and Michigan Tech—are lucky to have Godbole on the faculty.

"She's real quality," he said. "She does so many things, and she does them all with class."

## Proposals in progress

Researchers, their proposals, and their potential sponsors are

- **Song-Lin Yang** (ME-EM), "Numerical Studies of the LDI and the LDI/LPP Gas Turbine Combustor Concepts, Phase II," NASA
- **Allan Struthers** (mathematical sciences), "Collaborative Research: Studies in Nonlinear Optics," NSF
- **Chung-Jui Tsai** (IWR), "Field Trial of Transgenic Aspen Trees," USDA
- **Renfang Jiang** (mathematical sciences), "The Longest Common Subsequence," NSF
- **Walter Milligan** (MME), **Elias Aifantis** (ME-EM), and **John Williams** (chemistry), "Mechanical Instabilities in Materials," NSF
- **Vladimir Tonchev** (mathematical sciences), "Quantum Error-Correcting Codes," NSF
- **Jiquan Chen** (SFWP), "Ecological and Silvicultural Effects of Leaving Residual Trees After Harvest," USDA
- **Sonia Goltz** (SBE), "Fighting the Good Fight," American Association of University Women
- **S. D. McDowell**, **Ted Bornhorst**, and **George Robinson** (geological engineering and sciences), "X-Ray Diffractometry Applications in Geological Engineering and Geology," NSF
- **Chris Anderson** (Educational Opportunity), **Peck Cho** (ME-EM), **Kalpna Godbole** (mathematical sciences), and **Mark Plicta** (engineering), "MTU 4S—Project RISE III," Michigan Department of Education
- **Barry Kunz**, **Maija Kukla** (electrical engineering), and **Eugene Kotomia** (University of Latvia), "A Microscopic Theory of the Initial Stages of Explosion Initiation," Department of Energy
- **Kirk Schulz** and **Alan Nelson** (chemical engineering), "Preparation and Characterization of Two-Dimensional Pd/Ceria-Zirconia Model Automotive Emissions Control Catalysts," Michigan Space Grant Consortium
- **Bernard Alkire** (civil and environmental engineering), "Tribal Technical Assistance Program," Federal Highway Administration
- **Jacqueline Huntoon**, **Gregg Bluth** (geological engineering and sciences), **William Kennedy** (Center for Teaching, Learning, and Faculty Development), and **Fritz Erickson** (education), "Geology of Utah's National Parks and Monuments: Education Materials for Earth Science Courses," NSF
- **Jean Mayo** (computer science), "A Secure, Unrestricted Computer Science Systems Laboratory," NSF
- **Dana Richter** (IWR), "Mycorrhizal Mushroom Survey of Native Red Pine Stands," Michigan DNR
- **David Reed**, **Glenn Mroz**, **Martin Jurgensen** (SFWP), and **Tom Drummer** (mathematical sciences), "Defining Productive Potential of Temperate Tree Species: Nutrients and Water," USDA

## January

- 29 Friday**  
**8:00 p.m.**—University Theater: *Lettice and Lovage*—Walker Theatre
- 30 Saturday**  
**8:00 p.m.**—University Theater: *Lettice and Lovage*—Walker Theatre

## February

### BLACK HISTORY MONTH

- 3 Wednesday**  
**noon**—Teaching and Learning with Technology Roundtable—Memorial Union Ballroom A  
**4:00 p.m.**—Tech Tea: Liz Valencia, Isle Royale Shipwrecks—Memorial Union Alumni Lounge
- 4 Thursday**  
**8:00 p.m.**—University Theater: *Lettice and Lovage*—Walker Theatre
- 5 Friday**  
**7:05 p.m.**—Hockey, North Dakota at MTU—MacInnes Student Ice Arena  
**8:00 p.m.**—University Theater: *Lettice and Lovage*—Walker Theatre
- 6 Saturday**  
**5:05 p.m.**—Hockey, North Dakota at MTU—MacInnes Student Ice Arena  
**8:00 p.m.**—University Theater: *Lettice and Lovage*—Walker Theatre

## 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, January 29, 1999, at 1:00 p.m. through noon, Friday, February 5, 1999, in the Human Resources Office.

- Office and Account Assistant—Accounting Services (UAW internal posting only)
- Laboratory Technician—Mechanical Engineering-Engineering Mechanics (Temporary, part-time position)
- Research Engineer/Scientist I—Civil and Environmental Engineering (Two positions, separate job descriptions)

University employees are reminded to apply in writing prior to noon, Friday, February 5, 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.