

OUTREACH LINKAGES

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Continuing Professional Education: A University Responsibility

Providing broader access to the university's knowledge resources is, of course, one of MSU's Guiding Principles; facilitating such access is one of University Outreach's primary goals. We use a number of strategies to achieve that goal. Our faculty travel to other parts of the state and often beyond to teach courses



Robert L. Church, Acting Vice Provost for University Outreach

or give seminars or workshops to those unable to reside on campus. Internet, teleconferencing, and satellite technologies enable delivery of courses and degree programs in cities throughout the nation. Innovative scheduling (i.e., offering a course on an intensive basis over one, two, or three weeks as is often done in the summer, or teaching on a Fridaynight/all-day-Saturday format as in the PIM "weekend MBA" program) allows participants to pursue learning while maintaining their regular work schedule. All these strategies are designed to meet our responsibility to help people integrate advanced learning into their busy lives.

Although we usually think of these strategies as applying to the "nontraditional" student, we are also using them to serve our traditional students. This summer, for instance, the university will offer more than 200 undergraduate course sections in eleven different sites around the state so that our students can take MSU courses while living and working at home-affording them the opportunity to progress more rapidly to their degree. This spring those admitted to the class of 2002 were invited to complete the mathematics placement examination on the Internet using computers at their home or their high schools or any of MSU's 90 extension and outreach offices located in every county. This summer, before they come to campus, entering freshmen will have the opportunity to complete, via the Internet, a notfor-credit version of the Fundamentals of Mathematics course that is offered on campus as MTH 1825.

As the explosion of knowledge continues, fulfilling our responsibility to provide access will require us to use such innovative techniques more and more. This is especially true as we reach out to professionals. Purchasers of Continuing Professional Education (CPE) demand high quality services and products, with particular emphasis on cutting-edge knowledge, accessibility and efficiency of the delivery of knowledge, and applicability of new concepts and techniques to their work.

The university is well positioned to address such issues. First, as a research-intensive, knowledge generating institution, we are well able to provide up-to-date and comprehensive information. Second, as a teaching institution, we have developed, and continue to develop, techniques for assessing student learning and providing evidence that participants are actually learning, retaining, and using the knowledge. Third, as a collaborative institution, we have learned to partner with other organizations in order to customize education to fit their specific needs. Finally, as a technologically innovative institution, we have the ability to offer efficient modes of delivery (i.e., teleconferenced interactions and asynchronous exercises and projects) that accelerate the pace of learning so that the information learned can be quickly applied in the participant's organization.

The Office of the Vice Provost for University Outreach is eager to assist academic units in exploring ways that they can begin or expand their provision of CPE. This edition of Outreach Linkages includes an article on our certificate program for the CPE audience as well as descriptions of two quite diverse efforts to make advanced knowledge available to practitioners.

MSU Is Close To You

By Sandra Buike, Director, Instructional Programs, MSU-Southeast

E Contraction of the Vice Provost for University Outreach this time of year. Telephones ring and e-mail boxes are jammed as students hustle to sign up for MSU SummerStudy.* Since the early 1980s, Michigan State University undergraduates and guest students from other colleges and universities have been able to enroll in MSU undergraduate courses 'close to home' during the summer. In the last six years, we have witnessed a substantial increase in the interest of MSU students and others in continuing their studies during the summer semester. facilities. In each facility, a program/facility coordinator is on-site nightly assisting faculty and students with audiovisual equipment, supplies, room arrangements, and security.

The majority of courses are offered in the traditional face-to-face delivery format but newer technology allows several courses to be taught using the interactive digital (CODEC) technology. For example, two courses will be taught simultaneously to on-campus and off-campus undergraduate audiences, transmitted from East Lansing to Traverse City and Battle Creek. Several Virtual University



Both parents and students report the benefits of being able to study close to home, and benefits accrue to MSU as well. Students view SummerStudy as a way to work full time during the day and complete a course requirement during the evening. Parents view the summer program as a service MSU offers to students to make possible the completion of a bachelor's degree in four years. And the summer courses generate revenue for MSU departments and provide a variety of teaching experiences for MSU graduate assistants and faculty.

The 1998 SummerStudy Program offers more than 200 undergraduate courses across Michigan. This year, the number of off-campus summer locations has been increased to 13: Battle Creek, Birmingham, Farmington Hills, Flint, Grand Rapids, Ionia, Kalamazoo, Midland, Novi, Sterling Heights, Traverse City, Troy, and West Bloomfield. Most courses are taught in community high school (Internet) courses are also an option for summer students.

Technology also enables us to offer campus resources and services. Students may access MSU library resources via computer and telephone, a service of Library Outreach. Copies of journal and magazine articles as well as books are mailed to students' homes. Several course locations allow access to MSU computer labs in MSU off-campus facilities. In other areas, computer facilities comparable to MSU computer labs on campus are rented from community partners and made available to students. Students may buy textbooks for summer courses by dialing 1-800-808-BOOK and placing a credit card order with Follett DirectNet, a service



Sandy Buike counsels students on summer classes.

division of the Follett Book Company and the MSU Bookstore, or by calling the Student Bookstore (SBS) at 1-800-968-1111. Books are mailed to their summer addresses.

The development of the statewide SummerStudy plan is the work of MSU-Southeast, working in close collaboration with campus departments and colleges. MSU's colleges and departments offer a variety of courses statewide such as accounting, humanities, physics, resource development, social sciences, English, foreign languages, history, statistics, and many more. Most of the courses offered are required as part of the undergraduate student's degree program.

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^{*}SummerStudy refers to MSU's off-campus undergraduate summer school programs available across Michigan.

Red Cedar Writing Project Upgrades Teacher Skills

An interview with Janet Swenson, Ph.D., by Patricia Miller



Flint-area teachers concentrate on writing exercises. From left: Renetha Rumph, Sharon Courneya.

earning to write clearly and expressively is a lifelong process and continuing revelation. Today's onslaught of available information provides ready material for writers, but it doesn't make the task of distilling interesting and significant information any easier. Only the integrative and creative mind of the writer can accomplish this task. MSU works with teachers to refine their own writing skills in order to improve the writing skills of their students.

Michigan State University's Red Cedar Writing Project (RCWP) works with teachers each summer in three institutes. The first is the keystone: an invitational institute for teachers selected from a competitive application process. The second is an institute with open enrollment for anyone. The third is an advanced program for teachers who have completed the invitational institute. Each institute follows a basic model to achieve excellence in writing instruction.

Each summer, teachers gather on campus for four weeks to share their own writing and critique "promising practices" in composition education, to discuss recent research, and to develop classroom research projects. RCWP Director, Professor Janet Swenson, says, "Teaching well today is more complex than ever.

Teachers are expected to prepare students for state and national testing and still respond to diverse and often conflicting calls for education reform. The institute becomes a hothouse for teachers to grow their own practice as it is informed by interactions with other outstanding teacher researchers."

RCWP teachers also participate in Project Outreach funded by the DeWitt Wallace Foundation through the National Writing Project (NWP). Project Outreach has three objectives: to increase professional development assistance to teachers in low-income school districts, to improve the quality and relevance of that inservice, and to increase the number of teachers in leadership positions who represent racial, ethnic, or linguistic diversity. Swenson is one of four national coordinators of Project Outreach, a teacher network of 18 NWP sites conducting research in such diverse settings as Albuquerque, New Mexico; Juneau, Alaska; and Savannah, Georgia.

To initiate their Project Outreach action research, RCWP hosted "Professional Conversations" in Flint and Detroit so teachers could inform the research team about urban district concerns and interests. These conversations resulted in a special summer institute in 1997 on issues in urban teaching. Out of that experience grew a "Teachers on the Boundaries" group that is still active. The RCWP team has also responded to what they learned from the Professional Conversations by working with urban teachers to develop "Community Connections," writing projects in urban schools composed of ten teachers and ten parents, all writing about children's issues.

Swenson says, "We are really excited about the successful Community Connections writing projects in Detroit and Lansing. The teachers and parents asked for follow-up workshops. We think we can develop an array of models for ways to use writing in low-income school districts to develop stronger bonds between those working inside the schools and those in the broader community. And, in the process, teachers can improve the education students receive."

Urban Planners Help Rebuild Detroit

An interview with June Thomas, Ph.D. by Patricia Miller

Urban planning has its roots in ancient societies who made decisions about what part of the stream to use for drinking water and where the "wastewater" would be disposed. It's a long journey from those days to planning the revitalization of a major city such as Detroit. Planning has been going on for years, but the lure of an empowerment zone grant spurred multifaceted action by faculty, students, citizens, and officials.

Urban planning classes conduct studies that focus on historic preservation, downtown redevelopment, neighborhood revitalization, and land use/zoning. Now, MSU's Urban and Regional Planning Program (URP), housed in the Department of Geography, College of Social Science, has made important contributions to rebuilding Detroit. URP previously focused on assisting smaller cities, but professor June Thomas, now URP director, made new contacts through her work with the empowerment zone application progress that moved URP into action in Detroit.

Detroit's Planning Director and MSU Alumna Gloria Robinson picked June Thomas to serve as Strategic Planning Team Manager for Detroit's empowerment zone application during spring semester of Thomas's sabbatical year, 1993-94. The final application "won" \$100 million in federal grants, plus another \$1.9 billion dollars in matching commitments from local businesses and financial institutions, for efforts to rebuild the economy, finance programs for healthy and safe families, and improve the city's neighborhoods. A ten-year effort, the empowerment zone will attempt to revamp an 18.3 square mile area of Detroit; only six U.S. urban cities received federal empowerment zone designation during that first round of funding. government representatives work together during the application process."

After the application won in late 1994, Thomas and MSU moved to the role of support players under the auspices of the Community Outreach Partnership Center, a collaborative university effort largely funded by HUD. Professor Rex LaMore was instrumental in helping to create the HUD program that funded that grant and served with Thomas as coprincipal investigator for MSU's component.

Since that time, URP faculty members have participated in projects staffed by urban planning fieldwork classes and focused on assisting specific areas of Detroit. Professors Thomas, Miriam Rutz, Zenia Kotval, John Metzger, and LaMore are some of the faculty who have guided such projects as:

• neighborhood plans for community-based organizations, some of which have used data gathered by students to successfully apply for grants that funded neighborhood revitalization

- two land use studies of southwest Detroit
- studies concerning commercial and economic development
- ideas for rebuilding Bowen Library, a fire-damaged institution of importance to southwest Detroiters

Summer Outreach Activities in URP

•Professor Miriam Rutz is continuing to work with citizens in Iron County, MI. Her historic preservation planning students, in concert with involved citizens, prepared a preservation plan that was approved by the community. One recommendation was for a 30-mile-long looped driving tour past 26 historic sites. Community visioning workshops will be held this summer to design and place signs.

•Rutz has directed the planting of the Capitol Gardens at the Michigan Statehouse for the 5th consecutive year. She and two MSU students planned the gardens and will direct volunteers in planting them. The design themes are from the Victorian era when gardening was a form of art. The landscape incorporates carpet bedding and herbaceous borders in a color palette that moves from red through creams, pinks and lavenders to blue.

Dortmund professors, MSU and German students created plans for land use reconfiguration for the industrial section of Detroit that greatly impressed city officials and community representatives.

Since URP faculty now have direct ties with Detroit city government officials and community groups, their efforts to apply urban planning knowledge to central city challenges will surely grow and evolve. Faculty have expanded their interests to include the state's urban policy initiative. Thomas has worked with the Michigan House Bi-Partisan Urban Caucus, through her course in Urban Policy Analysis, to provide focused research on state urban policies. Students selected topics of interest to legislators such as brownfield development, community economic development, growth management, neighborhood revitalization, and revenue sharing; and 19 students presented their findings to state legislators in April 1998.

Functioning as part of a team that included six full-time staff working under the direction of an 18 person coordinating council, Thomas coordinated the planning activities of six citizen-based task forces. She also guided the planning process that helped create more than 80 programs and wrote portions of the application and its strategic plan. Thomas says, "It was a real privilege and an honor to play a role in this important initiative. The kudos that the city of Detroit received for its first-rate strategic plan more than offset the work involved! And it was particularly gratifying to see community groups and During 1997-98, Metzger helped facilitate a series of community visioning and education workshops organized by Southwest Detroit Environmental Vision. He was instrumental in winning a Michigan Environmental Council grant that financed an URP student intern, and he co-wrote the project's final report. That project generated focused recommendations for improving life in southwest Detroit, particularly in the areas of housing, employment, and environmental improvement.

URP has involved exchange students from the University of Dortmund, Germany, in the effort to help revision Detroit. During fall 1997, Rutz led ten MSU planning students in studies of the environment and potential land reuse in southwest Detroit. Rutz then took the students to Germany to see how the German people address similar industrial brownfield sites. During spring semester 1998, more than a dozen German urban planning students visited this country and participated in a design charette that took place in southwest Detroit. In an intense period of less than a week, guided by Rutz and two

Thomas says, "Linking outreach and community service, in a field such as urban and regional planning but in other 'applied research' fields as well, makes all the sense in the world. Students learn much more about society and their future occupations than they could from textbooks and lectures alone. Faculty gain a sense of purpose and service, as well as direction for their own research. The best urban researcher/scholars connect directly with the challenges urban people face." Echanges in today's marketplace and work environment. Knowledge is replacing capital and natural resources as the competitive advantage of the future. Technology is leveling the playing field between large

global organizations and small community-based organizations. In this environment, managers quickly learn that investments in their employees' learning will make a difference—and set them apart from their competition. They are looking for customized educational programs, particularly certificate programs, to help them make that difference.

Michigan State University is offering certificate programs in everything from educational technology to epidemiology, school social work to environmental policy, and beam physics to program evaluation.

"The research taking place on MSU's campus is the source of today's new knowledge," says Robert Church, acting vice provost for university outreach. "The University Outreach staff is focusing its efforts to help organizations tap into the resources of the university and the latest knowledge available. It's our goal to bring this knowledge to the workplace through advanced certificate programs."

A certificate program is defined as requiring the completion of an organized program of study, usually beyond the baccalaureate or master's degree. Many certificate programs comprise credit courses; many of these can be incorporated into a graduate degree program. Other programs are offered on a noncredit basis. "It's important to maintain a level of flexibility for our customers (both participants and their employers) while maintaining the educational quality and MSU's standard of excellence," says Marcella Stewart, director of educational ventures in the office of the vice provost for university outreach. Stewart explains that MSU is able to tailor an existing educational program or build new programs to meet an organization's learning objectives in a specialized field.

Outreach Partnerships, for example, developed a certificate program in client-centered outcome-based evaluation in collaboration with United Way of Michigan. The participants in this certificate program, called CHECKPOINTS, learn the fundamentals of evaluation design and implementation and are asked to examine their own organizational climate and program

Certificate Programs Provide New Knowledge for Professionals

By Stephanie Motschenbacher

purpose. This certificate is offered with training options—permitting organizations to select the level of training that is most appropriate for the individual learner. Participants who enroll in six daylong sessions earn a regular certificate. Those enrolling for 13 daylong sessions receive a certificate as a CHECKPOINTS evaluation trainer.

MSU's certificate programs are made available to working adults through a variety of instructional delivery modes including face-to-face, teleconferencing, and the Internet.

The College of Education offers a certificate program in Educational Technology face-to-face designed to help teachers expand their ability to use technology in the classroom. This certificate program is made available in numerous sites across the state. Though targeted at Michigan's teachers, the program has expanded to teachers in Mexico City and Valbonne, France. "We know that by offering the program in communities, more teachers will have access to the program. It provides an excellent opportunity for teachers to learn in their own environment using local and school computer labs," said Joseph Codde, faculty specialist, College of Education. Throughout the program, teachers develop portfolios that demonstrate their skills and abilities in educational technology. The credits they earn are applicable to their professional licensure requirements and the new master's degree program in educational technology.

Using technology, Michigan State University has expanded its offerings to working professionals in other fields including physicists, doctors, telecommunications professionals, and school social workers. "Distance education technologies such as interactive television and the Internet present tremendous opportunities to reach adult learners," says Church.

The Department of Epidemiology's certificate in clinical epidemiology and biostatistics is a prime example of how MSU is using interactive distance education technology. This certificate was designed for health professionals interested in furthering their ability to work with quantitative health data in their own practice or community. Participants in the program gain a better understanding of disease prevention, management, and control in both clinical and public health settings. The courses are broadcast via interactive television to MSU's six

community medical sites in Lansing, Kalamazoo, Saginaw, Grand Rapids, Escanaba, and Flint. Live lectures are transmitted to each of these sites using PICTURETEL, a distance education technology system.

The School of Social Work has designed a three-course sequence in school social work utilizing the Internet to deliver the program. Social work professionals who already have a MSW, as well as MSW students, who wish to be employed in a school setting, may complete the three state-required competency areas without leaving their current commitments. After students fulfill these competency requirements, they are certified by the State of Michigan. "Other states have similar requirements for school social workers," says Rena Harold, professor of social work. "We are looking at the Internet and the tools it makes available to faculty as a means to deliver materials that are specific to the state where a student intends to practice school social work," she says.

The success of MSU's certificate programs can be attributed to the integration of program planning and marketing. University Outreach is supporting departments and units in this customer driven process with members from its instruction and marketing teams. The Office of the Vice Provost for University Outreach will accept a program proposal as a request for marketing assistance.

Church says, "We believe that many programs require formal market research, and it's our intention to offer leadership for the proposed market research. The results of our research will become the guide for a certificate program marketing strategy and plan." Program proposal forms can be obtained from individual college outreach offices. If you would like assistance with your proposal, please contact Marcella Stewart at 353-0143. Completed proposals should be submitted to the Office of the Vice Provost for University Outreach by June 1, 1998, for programs to start in Spring/Summer 1999; October 5, 1998 for programs to start in Summer/Fall 1999; and March 1, 1999, for programs to start in Spring/Summer 2000.

MSU is Close...

(Continued from pg. 1)

A constant partner this year has been the Office of Enrollment Services. The Summer Schedule of Courses contained all SummerStudy courses within the department listings in the book, making it easier for MSU students to locate off-campus courses. This year, students who enrolled in an off-campus summer course will receive a letter confirming their enrollment; information about their course including location, meeting times, travel maps, textbook ordering; and where to go for information about dropping courses and tuition refunds.

Several marketing and promotional efforts led to the success of SummerStudy. Over the 1997 Thanksgiving break, a brochure was mailed to 26,000+ MSU undergraduates announcing SummerStudy courses. This began a series of communications with the students about SummerStudy courses available near their homes, including packets of course information and a reminder postcard. The brochure was also mailed to 54,000 students from other Michigan colleges and universities, followed by advertisements in school newspapers.

Environmental Engineering Students Design Real-World Cleanup Technologies

An interview with Susan Masten, Ph.D., by Patricia Miller

Hazardous waste cleanup and disposal rank high as concerns faced by environmental engineering students preparing for careers as consultants, academic experts, or government regulators. Developing cost-effective and timely solutions involves much more than understanding chemical engineering, waste disposal techniques, or stacks of U.S. EPA regulatory guidelines. Dr. Susan Masten, associate professor of environmental engineering, knows first hand that students must learn to "think outside of the classroom, not only looking at science and technology, but at the economic and regulatory aspects of a polluted site and the societal concerns for community health." Dr. Mackenzie Davis, Civil and Environmental Engineering, and Masten advised the MSU students who have participated in the Waste Management Education and Research Consortium (WERC) contest, held each spring in Las Cruces,

(Continued on pg. 4)



Engineering students learn design in the classroom, but moving into the community gives them the holistic perspective that graduate engineers need to be effective and establish trust with community leaders. Masten says, "Engineering students often believe that once they're in the 'real world' they'll work solely with other engineers, not needing to step beyond the technical aspects of a problem. This is far from the truth. Complex environmental problems require that engineers learn to communicate with scientists in other technical disciplines, social scientists, policy makers and regulators, and the public. If they don't learn to communicate, the effectiveness of their project is diminished."

Faculty adviser Susan Masten, right, leads the WERC Team.

Buike says, "SummerStudy is the best example of on-campus and off-campus staff and community partners working together. The creation of SummerStudy is like a well-timed dance. And nothing is more satisfying for me than to arrive on the first day of summer classes and watch the pieces flow together, representing months of work and human energy as our work culminates in 'MSU is Close to You!' across the state."

GREAT LAKES JOURNALISTS RECEIVE INTENSIVE ENVIRONMENTAL TRAINING

By Patricia Miller

Environmental scientists are gradually constructing a complicated picture that portrays both the fine details and the broader implications of the effects of hazardous wastes in the environment. This newer information must be disseminated accurately and in understandable language to the public so they can make the best possible decisions about matters that affect both individual human health and the global environment. One prime method to accomplish this task is to educate practicing environmental journalists in the art of translating emerging environmental knowledge into everyday language.

The Great Lakes Environmental Journalism Training Institute at Michigan State University helps educate print and broadcast journalists in key areas of environmental knowledge to foster timely and accurate reporting of environmental issues. The Great Lakes region is an environmentally sensitive area that contains the world's largest supply of fresh water and supports an enormous and complex ecosystem for recreation and preservation. What better place to pursue the timely and critical process of educating journalists who work in this field?

Jim Detjen, Knight Professor of Journalism who founded the Environmental Journalism Program at MSU, directs the institute. He works on this project with Professor Michael Kamrin, Institute of Environmental Toxicology, with funding from an outreach grant from the NIEHS/EPA Superfund Basic Research Program. The institute has also been supported by grants from the George Gund and Helmut Stern Foundations.

In its third year of operation, the four-day institute is held in early summer. About 25 journalists will study the fate of chemicals in the environment, cleanup programs, the roles of federal and state agencies, the effects of pesticides and other chemicals

Environmental Engineering...

(Continued from pg. 3)

New Mexico, the only national competition for environmental engineers. About 30 teams participate in the contest and MSU competes right at the top: the first year (1993) they took third place; they won first place in 1994 and 1995. The 1996 and 1997 teams took third place. Winning is great, of course, and the cash prizes help the next year's team finance their trip. Students tackle a real-life environmental problem and are judged on how well that task is completed as well as on formal presentations of their methods and solutions.

As support grew, the team benefited from collaboration with faculty from the Eli Broad School of Business and Management, the departments of Geology, Agricultural Engineering, Crop and Soil Science, the Cyclotron, and the Office of Radiation, Chemical, and Biological Safety (ORCBS). Teams included students from other departments, including Communications, Resource Development, and Crop and Soil Sciences. on fish, wildlife, and humans. They also receive instruction on the use of computer-assisted reporting, techniques for environmental reporting, and tips on investigative reporting. Reporters pay a registration fee and their own travel; the institute covers room and board, all materials, tours, and other expenses.

Detjen says, "Much of what the public knows about the environment comes from the mass media. Yet, reporters at many news organizations are poorly trained about science and the environment. Our goal is to bridge this gap and to help improve the quality and accuracy of environmental reporting."

Detjen and Kamrin believe that educating journalists to produce factual, intelligible, and timely environmental information will help the public keep abreast of and better understand environmental issues. Kamrin says, "In an era when scientific and environmental issues are increasingly politicized, it's very important that the media be equipped with the resources to provide the public with the most accurate and least biased information possible."

To complement the annual institute, Kamrin and Detjen developed World Wide Web pages, devoted specifically to journalists, that contain summaries of chemical properties, environmental toxicology concepts, and links to information of specific interest to reporters such as environmental regulations.

This unique collaboration of journalism and science has proved to be an effective method of outreach to reporters responsible for educating the public about complex scientific information that is difficult to understand. Detjen, who also founded the U.S. Society of Environmental Journalists and served as its first president, says, "Journalists and scientists must work together to help educate the public about complex scientific and environmental issues. Our institute is working to help improve the communications between these two groups."

technical information and assistance to communities confronted by hazardous contamination problems.

Reflecting on her community work, Masten says, "The WERC project emerged as the outreach activity closest to my heart. It's where I take current scholarly research and bring it to students directly involved in a project. I will influence future WERC students by experiences of previous years and bring the knowledge gained to students in my other courses. It's not just the physics and the chemistry—it's how we take the technology and implement it in the field. People's health is directly affected by our technical decisions. It's a way of making the campus and the world around it one."

Summer Arts Outreach Programs

MSU's campus echoes with sounds of performance art:

■ The Community Music School holds early childhood classes that create a rich music environment for children to interact with in the



The implicit images of "U" and "O" form the University Outreach mark. The mark illustrates the vision of the Outreach staff – to link the university's resources, knowledge, and experience to organizations, communities, and citizens in a scholarly effort to address pressing sociablems,

inform public policy debate, and discover new wisdom.

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Masten emphasizes that building sensitivity and awareness of citizen needs is critical to developing engineers who understand more than the science of pollution. Working through real problems involves (1) observing how other schools approach the same tasks, present solutions, communicate complex technological terminology, and explain overlaying regulatory requirements to officials and citizens, and (2) carrying that knowledge back to the classroom.

Masten says that she has learned much about supervising student teams, evaluating team progress, and correcting dysfunctional team behaviors so that success can follow. She now comprehends, on an engineering level, the whole flow of the remedial process that includes knowing what regulators want, how to apply regulations to cleanup designs, and how to assess which technologies are likely to work in the field. This knowledge has been directly applied to her teaching methods in other courses and to her outreach work in the Technical Outreach Services for Communities (TOSC) program that provides way they feel most comfortable—actively or just observing.

■ ASummer Repertory Opera Young Artist Workshop will present three operas between May 28 and June 28.

■ The bells in Beaumont Tower will entertain residents with Carillon concerts scheduled on four July Saturdays at 4:00 PM.

■ Asummer theatre workshop for high school students in the mid-Michigan area called THEATRIX '98 will be held June 22-July 2. THEATRIX is a collaboration among the Department of Theatre, Wharton Center, Boarshead Theater and East Lansing Arts and Recreation. Over 60 students will develop acting and improvisation skills and learn combat movement skills. They will perform scenes and short bits.

■ The Summer Circle Theatre for 1998 will present Brighton Beach Memoirs, June 17-20; Fortinbras, June 24-27; and Go Back For Murder, July 1-4. All plays will be performed on the banks of the Red Cedar River.

Regional Offices

East Central-Midland Robert Ojala, Acting Director; phone: (517) 839-8540

North-Traverse City Melvin R. Matchett, Director; phone: 355-7655

Southeast-Novi, Henry Allen, Director; phone: 353-1854

Southwest-Kalamazoo Gale Arent, Director; phone: 432-2848

Upper Peninsula-Marquette Douglas R. Brahee, Director; phone: (906) 228-4830

West Central-Grand Rapids Margaret Bethel, Director; phone: 355-4997

Please visit University Outreach's web site at http://www.msu.edu/unit/outreach/ for additional information on outreach resources.

MSU is an affirmative action/equal opportunity institution.