Special Edition

Archives

Spring 1998

inside OAKLAND

A newsletter for Oakland University colleagues

Advancing biomedical research

Faculty and staff learn together

Oakland calls on the academic and administrative communities annually to submit proposals for projects that will advance the university's strategic plan. Approved initiatives then are supported by one of two funds — the Strategic Plan Fund or the Technology Fund.

The response each year is an example of the creativity of Oakland's faculty and staff and the pride they have in the university's accomplishments and potential.

This *Inside Oakland* special edition provides a brief overview of the projects that were funded in 1996-97, and their outcomes. Together, they provide an overview for how OU faculty and staff are "Learning Together."

Center elevates Oakland's position as a national leader

Oakland University's new Center for Biomedical Research, awarded a two-year, $282,000 grant, holds promise for advancing biomedical research and education.

"This is truly a strategic proposal," says David J. Downing, dean, College of Arts and Sciences. "This is a critically important initiative for the college and the university, one which will support our considerable expertise and strength in the area of biomedical sciences."

OU's biomedical research is recognized as an area of academic excellence and a university strength. Faculty research in Biological Sciences, Chemistry and Physics departments, as well as the Eye Research Institute, is internationally recognized.

The new center further strengthens and advances those efforts. By fostering collaborative research and education, it enhances Oakland's ability to recruit and retain outstanding biomedical scientists. The center also brings together researchers currently scattered throughout the university, while expanding and replacing Oakland's Institute for Biochemistry and Biotechnology.

Strategic Plan Fund

"The Center for Biomedical Research now allows us to develop nationally eminent levels of quality biomedical research and education at OU and allied institutions," Downing says.

The center accomplishes this by recruiting exceptional scientists and facilitating collaborative biomedical research projects. It also develops gift, grant and contract support for biomedical research programs, graduate and undergraduate training, and core facilities and equipment.

Among its other goals are to enhance:

- graduate education
- undergraduate research
- awareness of biomedical research at Oakland
- community outreach activities

The initiative adds a specialization in Biochemical Communication to the Biomedical Sciences Ph.D. program, while increasing the number and quality of predoctoral students in the Biomedical Sciences program.

Professors Virinder Moudgil, Denis Callewaert, Beverly Berger (seated), and Michael Sevilla (seated) are challenged with advancing biomedical research and education at Oakland.

Funding provides powerful new workstations

Engineering and computer science seniors will take much of what they learn during their four-year program and incorporate it into one major project, thanks to a $89,000 grant from the OU Technology Fund.

Engineering and computer science seniors will gain broader design experience through the initiative "Senior Project Labs," funded by a grant of $89,000 for 1997-1998.

Technology Fund

The program provides equipment for the capstone experience in all three departments of the Oakland University School of Engineering and Computer Science (SECS), while strengthening the realm of student experiences in preparation for the corporate work world.

The initiative will also help ensure continued accreditation for the engineering and computer science programs at Oakland.

"Our accrediting agencies asked us to develop a design course that takes much of what students learn in their four-year program and incorporates it into one major project," SECS Dean Michael P. Polis says.

"Each program has created a capstone design class that will culminate their engineering education by combining the broad elements of education into a major design project."

Funding for the initiative will equip the school with powerful workstations and other equipment, allowing students to perform the intensive computations needed for design problems.

Oakland upgrades computer systems

Technology systems in Finance and Administration were revamped, with approval of a two-year, $195,000 award.

The upgrades include:

- a new computerized work order system that allows for managing preventive maintenance and a spare parts inventory
- computers in the Purchasing Department, including a network and optical disk imaging system
- capital planning and design software that improves management records and electronic class scheduling
- mailroom improvements

such as computer networking, software to reduce shipping and postage costs, and a mailer inserting system to automate services

The proposal also provided the Employee Relations Department with access to the Internet and university network.

"This will enhance communication within and outside ERD," says Paul E. Bissonnette, then vice president for Finance and Administration. "This also moves the department one step closer to being able to use and exploit the potential of the Internet, especially the World Wide Web."

Strategic Plan Fund

Funding for a Quality Learning Environment

QUOTABLE

- **"Mathematics students are usually looking for immediate solutions. They want help with current problems. But if they don't have a good understanding of the previous material, they become frustrated. The plan was to reach them before they became so discouraged." — Lynn Hockenberger, director Learning Resources**

- **"We are now attracting an astonishing number of students into the BA in performing arts curriculum, generating larger audiences and a broad base of community support." — Carol Halsted, chair, Department of Music, Theatre and Dance**

- **"First-semester students share the same classes with other new students, and our hope is they will find the experience friendlier and more welcoming. We also think they'll find it easier to make lasting friendships." — Marilyn Broderick, assistant director, New Student Programs**

Eye Research Institute welcomes new director

Janet Blanks shares her vision

Oakland University's Eye Research Institute, already receiving significant media attention locally and regionally, is taking another aggressive step toward national prominence and recognition with the recruitment of Janet Blanks as director.

Blanks succeeds Venkat Reddy, who founded the institute in 1968 with Everett Kinsey. The institute is one of the few eye research centers in the United States that is not affiliated with a medical school.

Before coming to Oakland, Blanks directed the Doheny Eye Institute's Electron Microscopy Laboratory in the University of Southern California's School of Medicine. She was also a professor in that school's Departments of Ophthalmology and Anatomy & Cell Biology. Blanks' goals include securing funding from private eye foundations and strengthening the relationship between the institute and Beaumont Hospital.

Supported by a $100,000 start-up award, ERI used the money to provide funding for equipment, office space, laboratory renovation and the director search.

OU eye research quality is supported through numerous scientific publications in peer journals and books, presentations at national and international meetings, invited presence at seminars, and participation on grant review panels and editorial boards of leading eye journals.

Janet Blanks conducts research in the Eye Research Institute (ERI) which, because of support from the Strategic Fund Implementation Fund, is taking another aggressive step toward national prominence and recognition. Blanks is the new ERI director.

It's no act — Studio Theatre set for new seats

Learning takes center stage with support of the Studio Theatre Restoration Project, funded by a $30,000 award.

The initiative will provide the resources to replace the platform-style chairs with adjustable, folding seats.

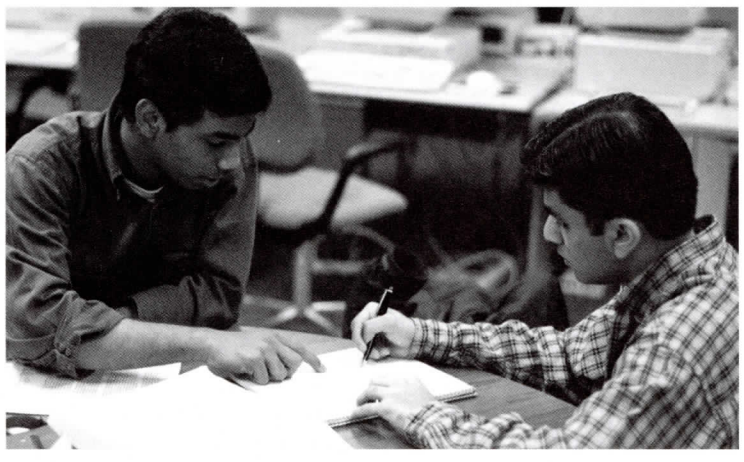
Varner Hall's Studio Theatre was built 30 years ago, featuring acting and rehearsal rooms and an intimate 200-seat theatre. Since then, it has become home to students and professional directors alike, becoming a theatrical "gem" for the university and surrounding community.

"Many of the theatre and dance students who have graced the stage over the years are now successful producers, actors and arts administrators," says Carol Halsted, chair, Department of Music, Theatre and Dance. "We are now attracting an astonishing number of students into the BA in performing arts curriculum, generating larger audiences and a broad base of community support."

Three decades of musical, comedic and dramatic performances have taken their toll on the theatre, however. The seats have fared the worst, she says.

"These new seats will allow for flexible audience configurations and better sightlines," says Halsted. "Most importantly, restoration of the Studio Theatre reinforces and promotes student artistic achievement, an important strategy."

The department used the original award to raise matching funds of $30,000.



Taraq Ahmed (right) receives assistance in calculus from another student in the Academic Skills Center.

Tutoring program focuses on math students

Oakland University mathematics students received special tutoring last year, thanks to the Academic Skills Center's proposal, "Review Tutoring," awarded a $2,500 grant.

The program was created in cooperation with the Department of Mathematical Sciences for students unable to keep up with class progress.

"Mathematics students are usually looking for immediate solutions," says Lynn Hockenberger, director, Learning Resources. "They want help with current problems. But if they don't have a good understanding of the previous material, they become frustrated. The plan was to reach them before they became so discouraged."

The sessions were designed to review material covered on previous exams, which helped students understand concepts already discussed in class. It was offered to students enrolled in 100-level math courses.

OU gets campus-friendly with freshmen

Cohort Registration for First Year Students is a new program supported by a $12,000 award.

The program is aimed at commuting Oakland University students to help find them assistance in forming study groups, developing friendships and acclimating to the campus environment.

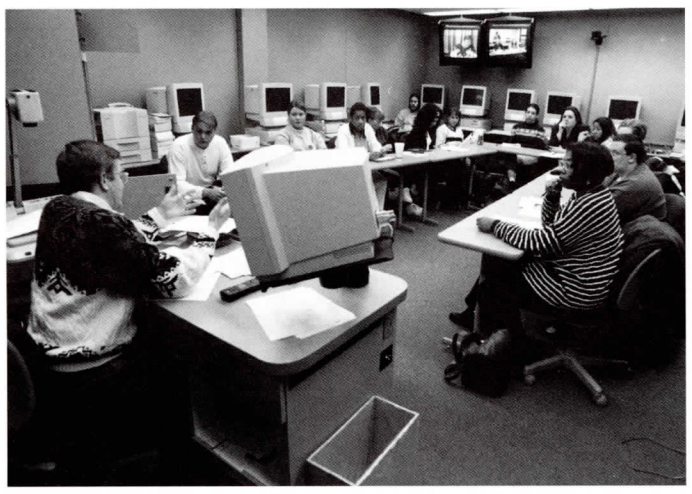
Cohort registration, or block scheduling, is a way of placing first-semester students in the same course sections for the majority of classes.

"We call the program Connections because we're helping new students make a connection with Oakland," says Marilyn Broderick, assistant director, New Student Programs. "First-semester students share the same classes with other new students, and our hope is they will find the experience friendlier and more welcoming. We also think they'll find it easier to make lasting friendships."

Four pilot groups, each with 25 students, began as cohort groups in fall 1997. These include students who are undecided or majoring in engineering, business or psychology. Participating students also attend a one-hour weekly seminar that helps them form study groups and peer relationships. A student trained as an orientation group leader and a supplemental instructor leader or tutor facilitate the sessions.

"We're giving all new students the opportunity to participate in a cohort group, with a special emphasis on commuter students," Broderick says.

Cohort registration helps first-yea students adjust to the college environment.



Distance Learning technology allows OU students to share class time with students in Traverse City. Professor Ronald Sudol (above) teaches with the help of interactive video, television monitors, computers and even fax machines.

Initiative combines the Internet and interactive video

Off-site students are becoming active learners through classrooms and labs that combine the Internet and interactive video.

The initiative, "Distance Learning Combining the Internet and Interactive Video," extends the reach of past distance learning efforts, which focused primarily on interactive video to sites such as Northwestern Michigan College.

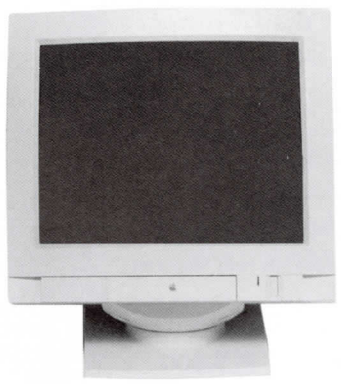
The project was funded for $258,000 over two years.

"Distance learning has always been largely dependent on the skill of the instructor. Interactive computers push students to be active learners, but human interaction at remote sites is restricted," says David J. Downing, dean, College of Arts and Sciences.

"The most effective approach is classrooms and labs that combine these two instructional methods. Oakland is in an excellent position to pioneer such multi-faceted teaching-learning environments.

"This initiative provides a unique and compelling learning environment for our students and external communities."

Downing cites several reasons for including computer communication in distance learning courses:



- students learn more effectively when they write about the subject they are studying, rather than just reading about it
- students enjoy using computers and often are more interested in attending computer classrooms
- computers encourage interaction from shy students
- information access now is largely computer-based

"Oakland has wisely emphasized computer access to research materials. This proposal expanded on that," Downing says. "Besides, distance education should take advantage of the fun and focusing that is experienced by computer users."

The initiative provides Oakland with a model educational delivery system that others will emulate, Downing adds.

The program was based in Wilson Hall, where a room was equipped as a multifaceted distance learning environment and seminar-style seating, surrounded by 15 networked computers.

Interactive video equipment was also installed, serving diverse teaching and learning styles and situations.

The room also is being used for Internet and video-conferencing.

Topics have included communications, advanced and technical writing, journalism and the modern languages.

Distance learning initiative reaches overseas

One of Oakland University's farthest-reaching initiatives was the Mercury Project, which established a North American consortium of universities for distance learning projects in cooperation with the Fédération Interuniversitaire de l'Enseignement a Distance-France (FIED) and the Université d'Orléans.

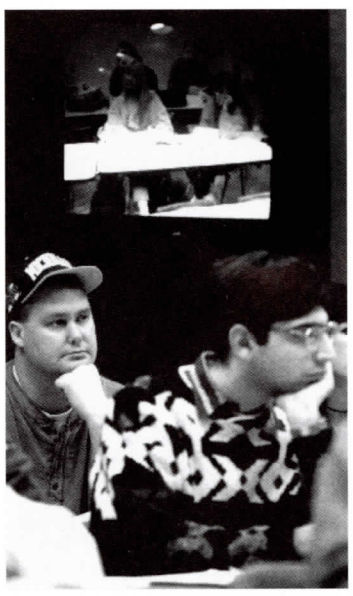
The consortium, funded by a $6,000 grant, is facilitating distance learning projects among English and French-speaking universities in the United States, Canada and France. It is headquartered at OU.

"We will seek to affiliate with a professional organization such as the American Association of Teachers of France," says David Jaymes, professor of French and chair of Modern Languages and Literatures. "The consortium is focusing on university-level foreign language programs, allowing live visual and aural access to the languages and cultures. We hope to involve other disciplines and in time, programs may even be extended to elementary and secondary schools, with universities serving as centers for the teaching."

The consortium allows small groups of universities to exchange lectures, readings, demonstrations, presentations and performances by writers, artists, scholars, researchers and other experts.

The universities can share courses in any academic discipline, and develop projects jointly among students, classes and colleagues in various countries.

Woven throughout all projects will be interaction via the video-teleconference.



The Mercury Project brings together students from different countires to exchange lectures, readings, demonstrations, presentations and performances by writers, artists, scholars, researchers and other experts.

Program matches technology and teaching

Oakland University students and faculty joined together to develop innovative uses for technology in the School of Education and Human Services initiative "Testing the Dream."

The program, granted funding of $105,000, provides hardware, software and support for integrating interactive multimedia, the Internet and distance learning technology into classrooms, creating effective learning environments.

Six workshops have introduced faculty to software applications such as PowerPoint, Astound and HyperStudio. Extensive tutorial training materials were developed for workshop and independent use.

"This program expands the use of interactive technology by faculty, staff and students," SEHS Dean Mary L. Otto says. "It is increasing faculty knowledge of the instructional and research uses of interactive technologies, and enhancing learning experiences for our students."

The proposal provides a "jump start" for using technology to teach education, counseling and human services courses, building on the talents of students already enrolled in the Instructional Systems Technology program.

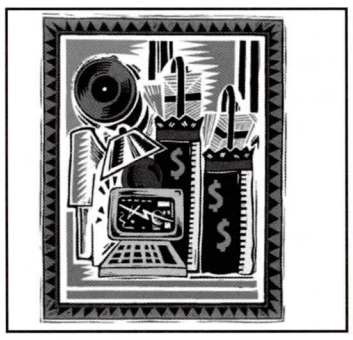
Students gain experience with DNA sequencing

Oakland University is adding new technology to the student experience and strengthening the teaching excellence within the biological sciences through the initiative "Acquisition of Equipment: Molecular Modeling and DNA Sequencer," supported by a $60,000 grant for 1997-1998.

The funding enables Oakland to add innovative technology in molecular modeling, DNA sequencing and cellular ultrastructure analysis. Among the courses that will benefit are introductory biology, genetics, cell biology, histology, microbiology and biochemistry.

"This provides students with access to the modern equipment used both at leading universities and institutions where our students will serve future internships or be employed," said Virinder K. Moudgil, chairman, Department of Biological Sciences.

Moudgil also said the new equipment and technology will provide students with new methods of learning contemporary biology, while making labs safer by minimizing student, faculty and staff exposure to hazardous chemicals and radioisotopes.



Technology Fund

Funding for a Quality Learning Environment

QUOTABLE

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Satellite copy and mail center planned for Oakland Center

Oakland is using an old idea to start a new business — a centrally located storefront that will provide mail and photocopy services for students, faculty and campus visitors.

Strategic Plan Fund

The 1997-1998 project, "Copy and Mail Satellite," is partially funded by $50,000 from the Strategic Plan Fund and Technology Fund, and is the university's response to student groups, which have indicated a desire for a satellite copy facility. The new center, expected to open later this year, will provide self-service and staff-assisted photocopying, color copies and related services such as binding, lamination, fax, stamps, packaging and notary.

The center will provide UPS and Federal Express shipping, as well as a campuswide courier service. Personal computer stations will be available for desktop publishing.

The center will serve as a drop-off site for university mail. In addition, self-service copiers and stamp machines will be accessible after hours.

"We want to become more involved with our students and have a stronger feeling of being an important member of the university community," says Sue Smith, director of University Services.

Voyager network expands Kresge Library's services

OU students will gain easier on-line access to books, periodicals and other resources later this year when the Kresge Library unveils its new automated network. The library has purchased a new system, called Voyager, from Endeavor Information System, Inc.

Technology Fund

Funded by a grant of $623,200 over two years, Voyager will replace the NOTIS library automated system used by Kresge since 1986.

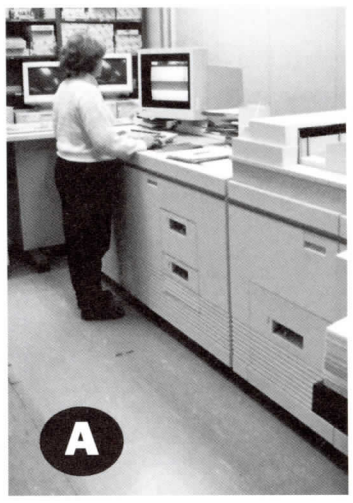
Housed at Wayne State University, NOTIS is shared by a consortium of nearly two dozen area libraries.

"The network offers searching capabilities we don't have now. Our users will be able to search more than one database at a time and access Web resources such as on-line journals," says Suzanne Frankie, dean, Kresge Library. "Users can place holds on materials and check the status of their accounts, all on-line. They can access the catalogs of systems throughout the world."

The network is expected to be completed by September 1, 1998, and can be accessed from the office or home.

Oakland plans innovative projects for 1997-98

Oakland University's Strategic Plan Fund and Technology Fund will support 15 projects this year. Here's a look at those initiatives.

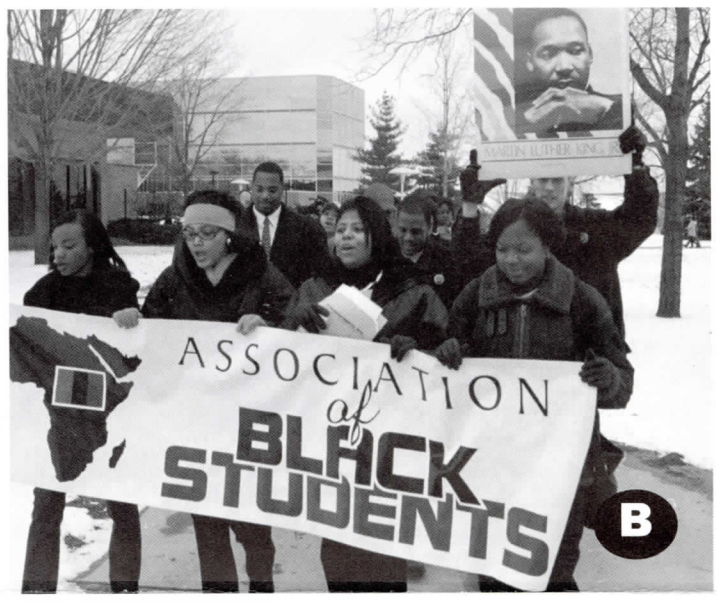

A

1997-98 Strategic Plan Fund Sponsored Projects — $224,500

Acquisition of Equipment: Molecular Modeling and DNA Sequencer **$60,000**
Secures a DNA sequencer with campuswide access, giving students direct involvement in experimentation and research while strengthening the teaching excellence within the biological sciences.

Copy and Mail Satellite in the Oakland Center (see A) **$50,000**
Supported by the Technology and Strategic Plan funds, it establishes a copy and mail center for student, faculty and visitor use.

Angels in America, Part I: Millennium Approaches **$45,000**
An innovative collaboration of Oakland's Department of Music, Theatre and Dance and the Meadow Brook Theatre that will present a spring 1998 production of the award-winning epic play.



B

Nonlinear Dynamics Program Workshop and Visiting Scholar Program **$15,000**
Supports an interdisciplinary research group in nonlinear dynamics, featuring lectures by visiting scholars, seminars, group discussion and student presentations.

Redesign of the Present Graduate Survey Document **$15,000**
Seeks to increase the response rate of the university's graduate survey to determine the effectiveness of the placement process and marketability of students.

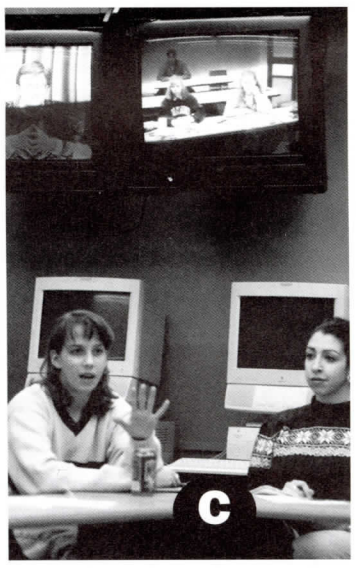
Cohort Registration for First-Year Students **$12,000**
Program continuation that provides first-year students with assistance in forming study groups, developing friendships and acclimating to the campus environment.

Establishment of OU as a National Center for the Study of Children's Written Language **$10,000**
Creates a national database of more than 18,000 compositions written by children, providing insight into children's written language skills.

The Oakland University Press **$10,000**
Funds a pilot project to explore creation of the Oakland University Press.

Evaluating Marketing Web Sites **$5,000**
Establishes a research program that will study firms, goals, their customers and outcome data to measure the effectiveness of web sites as marketing tools.

Campuswide Celebration of Dr. King's Birthday (see B) **$2,500**
Commemorates this national holiday with a celebration of the life of Dr. Martin Luther King Jr.


C

1997-98 Technology Fund Sponsored Projects — $1,053,600

Voyager Network to Expand Kresge Library's Services **$623,200**
OU students will gain greater on-line access to books, periodicals and other resources when the Kresge Library unveils its new automated network. The library will purchase the new network, called Voyager, through the Endeavor Information System.

Library Automation System **$275,300**
(Additional funds of $89,000 will be continued for 1998-99)
Funds implementation of an independent Library Management System for the Kresge Library, eliminating the need for contracting these services through external sources.

Senior Project Labs and UNIX Workstations **$89,000**
Provides quality capstone experiences in School of Engineering and Computer Science departments while strengthening the realm of student experiences in preparation for the corporate world.

Classroom Technology Equipment Upgrade (see C) **$50,000**
Integrated an additional 13 classrooms, 11 in the Science and Engineering Building and two in South Foundation Hall, into the electronic media retrieval system.

Data/Video Projection System **$16,100**
Provides a staffed central location, with extended hours, for viewing video materials in Kresge Library. The proposal includes two small study rooms, as well as a seminar room for larger groups.

Upgrade results in teaching opportunity

The Oakland University General Physics Laboratory underwent redesign and modernization through a $16,900 grant, enhancing learning opportunities for students in several programs.

Strategic Plan Fund

The upgrade allowed the department to introduce a computer-controlled experiment using liquid nitrogen, a cryogenic fluid, to teach elementary concepts in heat and thermodynamics to the department's 200 students.

The course — PHY 158 — gives students experience in common lab techniques while helping them understand the concepts taught in introductory physics lectures.