University of Missouri

SPECTRUM

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Eight programs targeted for eminence by 1995

Eight UM programs have been identified to work toward reaching or maintaining national and international eminence. Recommendations made by President C. Peter Magrath were approved Friday by the Board of Curators.

The programs are UM-St. Louis' chemistry program; UM-Rolla's intelligent industrial systems program and materials engineering and science program; UM-Kansas City's telecommunications and computer science program; UM-Columbia's journalism, molecular biology and Food for the 21st Century programs; and UM Extension's commercial agriculture program.

"Eminence designations in these areas, which were selected from among programs previously identified for enhancement as part of the curators' long-range plan, will focus positive attention on the University and the state of which UM is a vital part," Magrath says.

The attention would come not only from the academic community but from business, industry and government.

"All the programs have a very practical orientation. Even those that involve considerable amounts of basic research are designed to produce results that can be applied to solving people's problems in agriculture, medicine, business, industry and many other fields of human endeavor."

Identifying at least 10 programs for maintenance or achievement of national and international eminence by 1995 is among the objectives of the University's long-range plan. There may be another eminence program chosen for the UMSL campus after a successor to retiring UMSL Chancellor Arnold Grobman has an opportunity to make recommendations. Magrath also said he is still considering designating basic life sciences at UMKC for eminence, pending formal organization of the School of Basic Life Sciences and further discussion about the proposed north campus development, which would rely heavily on basic life sciences.

Magrath noted, however, that the number of eminence programs ultimately designated may not total 10, but may be less or more than that total.

In developing the recommendations Magrath and his staff considered the potential of programs to benefit the state as well as their appropriateness to the University's overall mission.

Also weighed were the relationship of each program to others at the University, the likelihood of achieving national or international eminence and the possibilities for attracting additional revenue.

The designation commits the University to providing — through the budgetary process — support to those programs so that they may make progress toward reaching eminence status. Support will be reflected in annual appropriations requests to the state, annual operating budgets and private fund-raising efforts.

Cost projections for bringing the eight programs to eminence will be presented to the board at future meetings.

"I believe that the money spent to achieve or maintain eminence in these eight programs will be among the best investments Missouri can make. The programs will be a foundation of quality on which we can build an even better University," Magrath says.

On this page and inside this issue are brief summaries of the programs.

Robert W. Murray, Curators' Professor of chemistry, is a member of the chemistry department faculty at UMSL. The chemistry department was the first UMSL department to offer doctoral degree work.

UM-Rolla

INTELLIGENT INDUSTRIAL SYSTEMS

America is poised on the edge of a revolutionary new step in the development of industrial systems — the integration of the entire design and manufacturing/production process, done with the help of computers and robots. Significant advances have been made in this direction by the Japanese, among others.

UM-Rolla already has a nucleus of faculty working in manufacturing automation, machine vision, artificial intelligence and other areas related to intelligent industrial systems. Although additional faculty members are needed to attain eminence, providing time and resources to the faculty is one of the most effective ways to develop eminence.

Improved student and curricular support is also extremely important to the success of this program. Graduate research assistantships are critical to attracting and retaining the top-quality students needed.

Also essential is creation of interdisciplinary degree options at the graduate level and closer cooperation with industry to provide graduate students with practical experience.

The discipline of flexible manufacturing — manufacturing almost completely computer-controlled and, therefore, more easily modified — is part of the interdisciplinary program UMR will call intelligent industrial systems. Pictured is a UMR student working in the lab sponsored by the UMR Institute for Flexible Manufacturing and Industrial Automation.

MATERIALS ENGINEERING AND SCIENCE

Throughout history society's progress has been closely linked to exploiting naturally occurring materials or creating new ones, as is evidenced by the classification of historical periods as Stone Age, Bronze Age and Iron Age. Many modern achievements are also the direct result of discovering and developing new materials.

Missouri has long been and today remains a major source of raw materials for industry. For example, Missouri is the world's largest producer of silicon for use in electronic components. But continued progress requires that the state invest in further materials research.

UM-Rolla already has in place strong, multidisciplinary research efforts that will serve as the foundation for achieving national and international eminence in materials engineering and science. Its metallurgical engineering and ceramic engineering programs are top ranked. More than half the campus' externally funded research is concerned with some aspect of materials research, making it UMR's largest research category. UMR researchers also work closely with their peers elsewhere in the University.

Because of the support core already available, the majority of the funds needed for eminence will go to special areas that have a high potential for attracting international attention. These include high-temperature composite materials for aircraft and ceramic engine applications, telecommunication and remote sensor materials, and corrosion and wear-resistant coatings.

UM-St. Louis

CHEMISTRY

Although little more than 20 years old, the UM-St. Louis chemistry program has become a large one. Graduates of its evening master's degree program, designed for the convenience of part-time students including industrial chemists and high school teachers, are actively recruited by employers, as are its doctoral program graduates.

St. Louis has the nation's fourth largest concentration of industrial chemists, including many UMSL graduates. The area's three largest employers of chemists — Monsanto, Mallinckrodt and Petrolite — have more graduates from UMSL's chemistry program than from any other institution.

Several UMSL research efforts are funded by St. Louis firms, which are also a source of adjunct faculty members. UMSL researchers also work closely with Washington University as well as with area medical schools.

Enrollment in UMSL's chemistry program is expected to increase, nearly doubling at the graduate level by 1994.

(More eminence programs, inside)

Magrath outlines ongoing planning process

UM President C. Peter Magrath, in a report to the Board of Curators last week, announced his plans for more closely integrating the budget development processes with the University's long-range planning process.

Budget development includes preparation of the annual appropriations requests to the state and of the annual operating budget.

"I think it critically important that the board be involved in the budget development process," Magrath said.

The practice in the past has been to present the appropriations requests and the operating budget to the board for the first time in late spring. Magrath said he plans to keep the board informed of the budget development processes, which begin in January after the board reviews budgetary guidelines in December, by making two to four progress reports on budget development to the board between January and the time budgets are presented for final action in June or July.

"The long-range plan provides guidance, continuity and integrity to budget development, which I view as inseparable from the planning process," Magrath said.

In his report on implementation of procedures for ongoing planning, needs assessment and trend monitoring — a report required by the plan itself — Magrath said he will create no new organizations or standing committees devoted to planning. Instead, regular administrative and governance structures will be responsible for planning. To ensure that decision making at the University remains "forward looking," Magrath said the long-range plan should be continually updated.

The board's long-range plan, "Toward Excellence: The Next Decade of the University of Missouri," calls for a periodic review of the UM mission statement. Magrath recommended that such a review take place no more often that every five years and that the next review be in 1988-89.

Since the long-range plan is built on assumptions about the future — including demographics, economics and other factors based on circumstances outside the University — Magrath said assumptions will be reviewed systematically each year.

The goals and objectives of the long-range plan also are to be reviewed annually. Magrath will accept proposals for changes in the goals and refer suggestions to appropriate councils or staff groups. With the advice of the chancellors and vice presidents, he will incorporate reviews of the goals in his annual report on planning to the board.

Magrath also will consider recommendations from the chancellors for changes in program priorities. Proposals must include justification and will be reviewed by the chancellors and vice presidents. If the president feels the changes are worthy of discussion, he will recommend them to the board.

The financial plan for achievement of the long-range objectives is to be reviewed and updated annually. The Office of the Vice President for Administrative Affairs will recommend updates to administrators, who will make recommendations to the board.

Jay Barton, vice president for academic affairs, will continue to make reports at each board meeting to the Long-Range Planning Committee on accomplishments of the goals.

Magrath said he will make his annual report on planning to the board each December. The report will include recommendations for improving and updating the plan and setting operational guidelines for the annual cycle of planning and budgeting.

Magrath reminded the board that some of the plan's objectives do not have price tags and are not included in the financial plan for achieving objectives. "These objectives are no less important than the others and we will work to achieve them and will monitor our progress in doing so. We cannot let the time and effort we devote to the important matters of dollars and budgets obscure the fact that progress toward excellence involves more than dollars and cents and that progress on many fronts can and will be made without additional allocations of financial resources."

Other reports on long-range planning objectives heard by the board:

Extension and Service

• The University should seek ways to assist the state in improving the quality of education in the public school system. — The board heard of plans for a cooperative project to improve the quality of education in Missouri public schools.

Being developed by UM and the Missouri Department of Elementary and Secondary Education, the project includes research into ways to reduce dropout rates among high school students. The curators this summer approved a request for $250,000 in state support in 1986-87 to fund the new program, and the Department of Elementary and Secondary Education has requested an equal amount from the state.

The University is looking for other ways the four campuses can work more closely with the state department and each other to improve state public education. Jay Barton, vice president for academic affairs, called for cooperative efforts on three levels: a closer partnership on the campuses between the colleges of education and arts and sciences; additional research and in-service programs in cooperation with the public school systems; and more intercampus cooperation in teacher education.

Barton, citing a report by a UM task force investigating ways the University could help with improvement of public education, noted that many innovations have been implemented by the campuses this year to improve Missouri public education.

The task force also recommended possibilities for future efforts: strengthening teacher education curricula, assessing student teachers' competencies in subject area and teaching abilities, and recruiting capable minority students; upgrading certification requirements for teachers and administrators; assisting the districts in upgrading math, sciences, computer education, and critical thinking and communication areas; providing compensation and recognition for faculty designated to work with the public schools; rewarding financially and professionally the teachers who pursue advanced degrees; providing graduate courses in international studies; and implementing the master of teaching in sciences degree, already approved at UMR.

Administration, Organization and Support Services

• The present procedures for adding programs, which typically result in a substantial time lag between identification of a clear need and the matriculation of students, must be streamlined for responsiveness. — Even though the process involves several steps, says Jay Barton, vice president for academic affairs, the many steps are necessary for the University and required by the Coordinating Board for Higher Education, which must approve new degree programs.

"We are making every effort to minimize the time taken to complete those steps at the University level, and we have been assured by members of the Academic Affairs Council that the same effort is being made at the campus level. We are particularly optimistic that we can reduce the time required by the Graduate Deans Group to review proposals at the graduate level."

• The University will initiate a special program to inform Missourians of the benefits of higher education. — Guy Horton, director of UM University Relations, told the board that a new film about the benefits of a college education has been produced for seventh, eighth and ninth graders. The film also offers suggestions for what the middle school student can do now to prepare for entering college. David Leuthold, UMC professor of political science, told about a survey that shows what factors outstanding students consider when choosing a college.

Financial

• The president will discuss with the board a plan to double private giving to the University. — UM President C. Peter Magrath reported to the board that he and other administrators are considering a plan to hire a Chicago-based private firm to act as a consultant to the University. The firm would evaluate the effectiveness of the current fund-raising structure, help UM develop a major-gifts campaign and other fund-raising campaigns, and advise UM on a fund-raising plan for the University's sesquicentennial in 1989.

Staff

• The University strives to attract, retain and promote a staff diverse in race, age and sex. — Karen Touzeau, director of UM employee relations and affirmative action, gave an overview of affirmative action progress made by the University since 1981. Because comparatively low salaries tend to be an impediment to affirmative action efforts, the emphasis should be on grooming and promoting minorities already employed by the University, she said.

Medical plan rates to remain the same

No rate increases are planned in the faculty and staff medical benefits program through the 1986 calendar year, says Michael Paden, UM staff benefits manager.

This will be the first year since 1974 that medical premiums have not increased. Enrollees experienced increases of 25 percent in October 1984, 13 percent in October 1983, 37 percent in October 1982, 8 percent in January 1982 and 16 percent in October 1980. The higher rates were necessitated by increases in usage of the medical plan, higher enrollment levels and escalating costs of medical care. In addition, new federal policies now limit the amount the federal government pays for medical care, shifting additional cost burden to other insurers, including the University, Paden says.

UM employees deserve partial credit for holding the line on expenses incurred by the University's self-insured fund, Paden says. Employees have become wiser consumers of medical services by using generic drugs, obtaining second opinions on surgeries, utilizing outpatient rather than inpatient services and carefully selecting other treatments and services.

Paden says he is hopeful no rate increases will be necessary in the dental benefits plan as well. However, since the University has self-insured the plan only since January 1985, further experience is needed to determine how cost-effective the plan will be. A decision about rates for the dental plan is expected next month.

Barton announces Weldon Spring guidelines

Earnings from the Weldon Spring Endowment Fund will make $1,075,000 available to UM faculty in 1986 for research and other activities, UM Vice President for Academic Affairs Jay Barton has announced. The amount is $25,000 more than was available for the 1985 competition.

The Weldon Spring Fund, created by the 1979 sale of the University's Weldon Spring property in St. Charles County, is used to support scholarly, artistic and creative instructional activities of UM faculty.

Barton has developed the following guidelines for the 1986 awards:

• Each chancellor may nominate one faculty member for the $10,000 Presidential Award for Research and Creativity. Nominations are due from the chancellors Feb. 20. "This award for $10,000 in unrestricted expense funding is open to our very best faculty members from any discipline," Barton says.

• A total of $366,250 will be used to support faculty creativity that will foster intercampus cooperation. Of this amount, $20,000 will be allocated to continue the Weldon Spring Humanities Seminar, with the remaining $346,250 being distributed on the basis of a review of proposals by a committee composed of graduate deans and one faculty member from each campus. Chancellors are asked to submit proposals that meet the general purpose of the Weldon Spring Endowment — faculty creativity — and increase the level of intercampus cooperation.

Proposals may be for a specific research project or for other activity, such as colloquia, visiting scholars or plans to strengthen the ties among faculty members throughout the University.

All proposals are to be submitted, along with the chancellors' endorsements, by Feb. 20. Unlike past years, the proposals will not be reviewed or ranked by the campus.

• A total of $698,750 will be awarded to the four campuses to use for campus competitions to fund additional Weldon Spring proposals. The chancellors may develop their own guidelines and procedures for the allocation of the money, but the funds must be used to promote the purpose of the Weldon Spring Endowment.

Chancellors will submit to the vice president a list of the approved proposals after the competition process is completed.

Campus distribution of the funds:

UMC — $209,625
UMKC — $166,625
UMR — $161,250
UMSL — $161,250

Faculty members may contact chancellors for more information.

Curators approve degree programs

The UM Board of Curators last week gave approval to a new doctorate level program in political science at UM-St. Louis and a bachelor of arts degree in religious studies at UM-Columbia. The proposals will be submitted to the Coordinating Board for Higher Education next month.

The proposed Ph.D. program in political science places heavy emphasis on public policy. The program is designed primarily for public policy practitioners — those already in government service — and recent graduates seeking a career in government service.

The new religious studies degree would be a formalization of the existing program, says Jill Raitt, chairwoman of the religious studies department.

Continued from front

Eight programs targeted for eminence by 1995

New York photographer J. Ross Baughman visits a photojournalism class to discuss the students' work with them. The course is part of the photojournalism sequence at the UMC School of Journalism. Last year members of the Associated Press Managing Editors organization were asked: "Which schools are sending you the best young journalists?" The UMC School of Journalism was the top answer.

UM-Columbia

MOLECULAR BIOLOGY

By allowing scientists to create new combinations of genetic information, molecular biology may someday help eliminate most birth defects and genetically caused diseases, reduce farmers' dependence on artificial fertilizers by creating plants that make their own fertilizer and even help extend our dwindling petroleum reserves.

UM-Columbia is one of only seven universities in the nation bringing together scientists from its agriculture, arts and science, medicine and veterinary medicine areas to work together on molecular biology. In fact, a full three-fourths of the total outside research funding received by all public institutions in Missouri goes to the University for biology-related projects.

The molecular biology eminence program will focus UMC's efforts on three emphasis areas:

- development and aging, which will utilize recombinant DNA technology to study aging and genetic disease at the level of the gene.
- molecular mechanisms of disease and disease resistance, which will focus on diagnosis of disease and disease prevention in plants, animals and humans.
- biological energy conversion, which will investigate bioenergetic processes such as photosynthesis and how they might be manipulated to better serve human ends.

Although UMC has a core of nationally and internationally respected researchers in these areas, attaining eminence for the molecular biology program will require adding faculty, postdoctoral fellows and graduate assistants.

In addition, specialized equipment centers will be needed for monoclonal antibody production, nucleic acid chemistry and protein chemistry. New or renovated laboratory space and technical support staff are also needed.

JOURNALISM

The world's first, and many say the best, school of journalism makes its home on the UM-Columbia campus. The school's 13,000 graduates, scattered around the world, play a vital role in strengthening the effectiveness of public communication.

Besides training journalists with a "hands-on" approach, the UMC School of Journalism houses the Freedom of Information Center and serves as headquarters for an association of investigative reporters and editors.

In order to remain a leader, the UMC School of Journalism must meet the challenges confronting not only journalism education but the journalism profession itself.

Credibility is perhaps the most valuable and most easily damaged asset of the news media. The proposed Center for the Study of Media Credibility will examine inaccuracies and imbalances in the news media as well as the ethics of news gathering and presentation. The center will also work to increase accuracy in media by improving information-gathering methods.

Methods of disseminating information are rapidly multiplying, and with the changes come many questions. The proposed National Telecommunications Center will assist the profession by developing expertise to help the print media adjust to electronic competition and by conducting market research for media companies seeking to coordinate print and broadcast media. The center will also broadcast news over cable television, utilizing the latest technology to continue the tradition of providing practical training.

Eminence funds will also help support the school's Media Research Bureau, which serves as a research and marketing aid for Missouri's smaller newspapers and broadcast media.

Part of the additional funding will be used to increase minority enrollment by hiring a full-time recruiter and adviser for undergraduate minority students. Faculty positions cut during recent years will be restored and new equipment will be purchased to help prepare students for a rapidly changing job market.

FOOD FOR THE 21ST CENTURY

This program, a cooperative effort of the colleges of agriculture, home economics and veterinary medicine, is designed to anticipate the problems that will face agriculture in the next two decades and generate solutions. It can help Missouri's food and agriculture industries remain competitive through access to new technology. This program will generate that technology and place the University in a position of eminence in agricultural research.

Program emphasis areas include the metabolic regulation of plants and animals, alternative sources of food and animal feeds and specialized human nutritional needs for quality life. Although these programs involve considerable research, all focus on finding practical solutions to specific problems.

UM Extension

COMMERCIAL AGRICULTURE

Missouri agriculture is as diverse as it is important to the state's economy. While the majority of farm families in Missouri get part of their income from non-farm sources, commercial producers are dependent upon farming for almost all of their income. A few thousand commercial farmers produce nearly 30 percent of Missouri's farm products and their share is increasing. Because the University recognizes the important role of commercial agriculture to Missouri's economic vitality, it has designed an eminence program, "The Competitive Edge in Commercial Agriculture," to be given highest priority.

The program is a comprehensive, integrated package. Its key elements are: computers and telecommunications to link commercial producers with University scientists, other producers, agribusiness people, decision makers and relevant current data bases; computerized "expert systems" to aid in the decision-making process; lifelong learning opportunities; involvement of commercial producers in the University's research and development efforts from the planning stage onward; and creation of a "think tank" innovation center to serve the needs of commercial agriculture.

A UMKC communications studies student explores state-of-the-art telecommunications equipment that students have access to at the Kansas City-based United Telecommunications Inc. UMKC and United Telecommunications participate in a joint agreement that enhances research and educational programs.

UM-Kansas City

TELECOMMUNICATIONS AND COMPUTER SCIENCE

Computer technology has already begun revolutionizing the workplace, the marketplace and even the home. The revolution will continue, with advances in computing progressing hand-in-hand with advances in telecommunications as we enter the "information age."

UM-Kansas City plans to achieve eminence in this ever-changing, rapidly growing field in part through encouragement of corporate/academic cooperation. Although much remains to be done, significant steps have already been taken in this direction.

Success in this effort will benefit UMKC students and faculty and the private firms involved. In turn, this will benefit the Kansas City community by strengthening its position in computer science and telecommunications, attracting more firms and more jobs. This program could be of value in attracting potential businesses to the proposed north campus development site.

To achieve eminence in computer science, UMKC has designated computer networking and telecommunications as emphasis areas, although support will be provided in related areas. Both fields are projected to grow rapidly.

A significant portion of the eminence funds will be used to recruit new faculty in computer networking and telecommunications. Eminence funds will facilitate faculty development programs and allow purchase of state-of-the-art equipment.

UMKC also plans to expand and consolidate its doctoral program in mathematics to create a mathematical and physical sciences doctorate to attract high-quality graduate students, including those from the industrial sector. The degree program will complement those on other UM campuses.

CBHE removes construction from recommendation

The Coordinating Board for Higher Education at its September meeting decided to forward to the governor a recommendation that UM receive $24 million in capital appropriations for 1986-87.

The state board, which makes recommendations to the governor for state funding of all Missouri public higher education institutions, had been expected to act next month on the recommendation made by the CBHE Fiscal Affairs Committee.

The committee recommended UM receive $53 million for capital projects, but the CBHE decided to recommend no money for new construction at any of the state's public colleges and universities. The recommendation CBHE will submit to the governor will concentrate, then, on providing higher education funds for maintenance and renovation.

The University will continue to seek money for new construction, says Jim Bunton, manager of fiscal affairs for the UM office of business services.

At last week's meeting of the Board of Curators, $4 million was added to the University's request for 1986-87 capital appropriations. The additional money would finance the purchase of equipment for engineering schools at UM-Columbia and UM-Rolla, a purchase authorized, if funding is available, by the past session of the Missouri General Assembly.

The addition brings to $104 million the total capital appropriation request being submitted by UM to the legislature.

1986-87 Capital Appropriation Request

	UM request	CBHE Fiscal Affairs Committee recommendation	CBHE recommendation
Maintenance and Repair	$ 29,979,659	$17,278,130	$17,278,130
Columbia:			
General Campus	14,571,550	10,471,710	10,471,710
Hospital & Clinics	3,798,882	1,302,375	1,302,375
Agricultural Experiment Stations	3,458,613	1,804,983	1,804,983
Kansas City	2,407,795	1,558,254	1,558,254
Rolla	4,989,738	1,634,770	1,634,770
St. Louis	753,081	506,038	506,038
Rehabilitation of Existing Facilities	$ 26,451,851	$ 2,941,097	$ 2,941,097
Columbia:			
General Campus	12,901,451	1,376,329	1,376,329
Hospital & Clinics	665,251	229,916	229,916
Agricultural Experiment Stations	1,197,748	661,789	661,789
Kansas City	3,679,577	—	—
Rolla	7,190,266	673,063	673,063
St. Louis	817,558	—	—
Capital Equipment Replacement	$ 9,916,800	$ 3,513,600	$ 3,513,600
Medical Equipment (UMCHC)	5,856,000	3,513,600	3,513,600
Engineering Equipment (UMR)*	2,688,000	*	*
Engineering Equipment (UMC)*	1,372,800	*	*
New Construction and Major Renovation	$ 37,585,000	$28,773,000	—
1 Engineering Lab & Classroom (UMC)	15,560,000	12,448,000	
2 Auditorium, Music & Alumni (UMR)	5,100,000	5,100,000	
3 Ellis Library Phase II (P) (UMC)	115,000	115,000	
4 Library Addition (UMSL)	6,000,000	6,000,000	
5 Reactor Addition (P) (UM)	250,000	—	
6 Veterinary Medicine Addition (P) (UMC)	200,000	200,000	
7 Nelson School Renovation (UMKC)	3,650,000	3,650,000	
8 Electrical Engineering Renovation (UMR)	1,500,000	1,200,000	
9 Engineering Complex Renovation (UMC)	5,150,000	—	
10 Plant Science Facility (P) (UMC)	60,000	60,000	
TOTAL	**$103,933,310**	**$52,505,827**	**$23,732,827**

(P) = Planning
*Request for engineering funds added after the CBHE made its recommendation

Emeritus titles granted

The following emeritus titles were awarded by the UM system Board of Curators at its past two meetings:

Eugene B. Hensley, professor emeritus of physics, UMC, effective Sept. 1, 1985.

Winifred B. Horner, professor emeritus of English, UMC, effective Sept. 1, 1985.

Andrew C. Minor, professor emeritus of music, UMC, effective Sept. 1, 1985.

John C. Schuder, professor emeritus of surgery, UMC, effective Sept. 1, 1985.

Scott Searles Jr., professor emeritus of chemistry, UMC, effective Sept. 1, 1985.

Wellington B. Stewart, professor emeritus of pathology, UMC, effective June 1, 1985.

Byrdine H. Tuthill, professor emeritus of human nutrition, foods and food systems management, UMC, effective Sept. 1, 1985.

Sarah L. Walton, associate professor emeritus of German, UMC, effective Sept. 1, 1985.

Joseph M. Wood, professor emeritus of biological science, UMC, effective Sept. 1, 1985.

Robin Humphrey, associate professor emeritus of theater, UMKC, effective Sept. 1, 1985.

Maxine S. Moore, associate professor emeritus of English, UMKC, effective Sept 1, 1985.

UM faculty members win Fulbright grants

Eight UM faculty members have been awarded Fulbright grants for study abroad during the 1985-86 academic year.

UM-Columbia faculty members who received grants and their host universities are Barbara J. Bank, associate professor of sociology, Australian National University in Australia; Jerry K. Benson, professor of sociology, Gothenburg University in Sweden; George P. Kennedy, associate professor of journalism, University of Canterbury in New Zealand; Barrie D. Smith, associate professor of anatomy, Jordan University in Jordan; and Lawrence E. Sullivan, associate professor of religious studies, The Nanzan Institute for Religion and Culture in Japan.

Faculty members from UM-Kansas City who received grants are Henry Troyer, associate professor of anatomy, for study at the University of Zimbabwe-Harare in Zimbabwe, and David M. Yourtee, associate professor of toxicology, to study at the University of Lagos in Nigeria.

Frederic S. Pearson, professor of political science at UM-St. Louis, received a grant to study at the University of Lancaster in the United Kingdom.

Fulbright awards are given to U.S. citizens and people from other countries for university lecturing, advanced research, graduate study and teaching in elementary and secondary schools. The purpose of the Fulbright program is to increase mutual understanding between people of the United States and people of other countries.

Jobs

The following administrative/professional and academic vacancies were listed with *Spectrum* as of Sept. 13. Anyone interested in a position should contact the appropriate department or personnel office.

UMC: asst. professor, public administration, veterinary medicine/surgery, sociology, animal sciences (2), mechanical/aerospace engineering; asst./assoc./full professor, history, mechanical/aerospace engineering; clinical instructor, medicine; asst./assoc. professor, surgery, veterinary biomedical sciences, veterinary pathology, political science, veterinary medicine/surgery (2), religious studies, family/community medicine (2), history; assoc. professor, law, family/community medicine; clinical instructor/clinical asst. professor, family/community medicine (2); instructor/asst./assoc. professor, business administration; instructor/asst. professor, veterinary biomedical sciences; librarian I (2); instructor/asst./assoc./full professor, nursing; director/instructor, law enforcement training institute; instructor, law enforcement training institute; librarian II, family/community medicine; program director/extension/continuing education/lecturer, library/informational science; director/fire training specialist, Missouri Fire & Rescue Training Institute; director, development fund; energy management engineer; golf course supervisor; information specialist; manager, extension computing; police officer; supervisor, golf pro shop; sr. research specialist; research specialist (5); asst. supervisor, custodial services; museum curator; photographer; student services coordinator (2); asst. manager, bookstore; coordinator, media communications laboratory. **UM:** director, State Historical Society of Missouri/Joint Collection of the Society Manuscripts/Western Historical Manuscript Collection, management information system, central computing facility; insurance manager; sr. research/laboratory technician; computer programmer/analyst II.

UMC Hospital: manager, clinic administration, plant engineering; physical therapist (2); administrative nurse I; clinical dietitian; clinical nurse specialist; computer project manager; education nurse I; occupational therapist; sr. systems programmer; supervisor, food service.

UMKC: assoc./full professor, direct marketing; grader, business/public administration; asst./assoc. professor, design (theater), removable prosthodontics, pediatric dentistry, accountancy; visiting professor, theater; adjunct faculty, biology; instructor/asst. professor, communication studies; research associate, Institute for Human Development; theater assistant (10); visiting research associate, physics; research assistant, chemistry; lecturer, chemistry, basic life sciences, business, history, computer science, engineering; asst./assoc. professor/director of bands, Conservatory of Music; clinical faculty, dentistry; asst./assoc./full professor, computer science; ballet instructor, Conservatory of Music; administrative associate II; graphic artist II; director, affirmative action/coordinator, academic personnel.

UMR: research asst. professor, metallurgical engineering; visiting assoc. professor, electrical engineering; adjunct asst. professor, electrical engineering; postdoctoral fellow, physics; lecturer, engineering management, philosophy, English (2).

UMSL: asst. professor, marketing, behavioral management (2); assoc./full/visiting professor, marketing; asst./assoc. professor, computer science; asst./assoc./full professor, accounting, finance, management science/information systems; sr. manuscript specialist, Western Historical Manuscript Collection.

SPECTRUM

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