

Announcements

Tulane University has begun a 4-year curriculum in **engineering education**, "to help students prepare for careers in newly-emerging engineering areas." In addition to the required courses in engineering, mathematics, and science, and a new interdepartmental program in engineering design and statistics, students will be able to arrange special sequences of courses geared to their individual career interests.

The Society for **Cryobiology** was formed recently to promote and disseminate "research in the field of low temperature biology." It will emphasize the theoretical and applied aspects of freezing and thawing in biological systems. Biologists, physicists, chemists, and engineers interested in cryogenic research are eligible for membership. Further information on the organization is available from V. P. Perry, 4200 Heathfield Rd., Rockville, Md.

A **life sciences** department has been organized at Westinghouse Research Laboratories for work on relationships between the physical and biological sciences. It includes three major groups: astrobotics, biotechnology, and radiation and physical biology. The department is headed by Lloyd B. Kramer, who has been department manager in the Westinghouse astronuclear laboratory.

Meeting Notes

Papers are invited for presentation at an international symposium on **antennas and propagation**, 22-24 September in New York. The meeting is sponsored by a professional technical group of the Institute of Electrical and Electronics Engineers. Three copies are required of a 1000-word summary including up to six figures, for publication. Deadline: *2 March*. (H. Jasik, Jasik Laboratories, 100 Shames Drive, Westbury, L.I., N.Y.)

Experiments conducted by the **Interplanetary Monitoring Platform** (Explorer XVII) will be the topic of a symposium 12 March at Goddard Space Flight Center, Greenbelt, Md. The IMP is investigating magnetic fields, plasmas, and particles to an apogee of 198,000 km. Advance registration is requested. (C. P. Boyle, Code 207, Goddard Space Flight Center, Greenbelt, Md. 20771)

A symposium on the **thermal radiation of solids** is scheduled 4-6 March in San Francisco, California. Topics to be covered include fundamentals of thermal radiative transfer, measurement techniques, environmental effects, engineering applications, and surface effects. Approximately 28 papers will be presented. (W. D. Harris, Engineering and Sciences Extension, University of California, Berkeley 4)

A conference on **computers in education** is scheduled 9-11 March at the University of Oregon, Eugene. Discussion will include the use of computers in school registration, attendance, scheduling, and student appraisal. Attendance will be limited to approximately 150 persons; a \$25 registration fee is required. (J. W. Loughary, School of Education, University of Oregon, Eugene)

An international symposium on theoretical and applied **mathematical programming** will take place at the London School of Economics, 6-10 July. Papers in English or French are invited; abstracts of approximately 300 words must be submitted in duplicate. Deadline: *1 March*. (Mrs. M. Kinnaird, Operational Research Soc., 64 Cannon St., London, E.C. 4)

A conference on statistical analysis of **spatial distributions** is scheduled 16-29 August at Northwestern University. The topics covered will include contiguity problems, aggregation and autocorrelation in spatial series, and studies of the structure and identification of two-dimensional point and line distributions. Stipends and travel grants for 30 college and university teachers of geography and related subjects are available through NSF support. Deadline for applications: *15 March*. (D. F. Marble, Department of Geography, Northwestern University, Evanston, Ill.)

A conference on **precision electromagnetic measurements** is scheduled 23-25 June at the National Bureau of Standards, Boulder, Colorado. The meeting will include papers and discussion on measurements throughout the coherent spectrum at levels of precision appropriate to national standards laboratories throughout the world. Papers are solicited from the U.S. and abroad; 200-word abstracts are required. Deadline: *15 March*. (C. F. Hempstead, Bell Telephone Laboratories, Murray Hill, N.J.)

Colorado State University will present its third conference on **atmospheric sciences**, 10-29 August, under an NSF grant. Participation is limited to 30 physical science teachers who are or will be conducting undergraduate meteorology courses in college. The conference will include physical and dynamic meteorology, climatology, and the physics of the high atmosphere. Deadline for applications: *20 March*. (W. Marlatt, Department of Atmospheric Sciences, Colorado State University, Fort Collins)

Oak Ridge National Laboratory will sponsor an international symposium on **surface contamination**, 8-12 June in Gatlinburg, Tenn. It will feature discussion of radioactive, chemical, bacteriological, and abrasive contaminants. Papers are invited for presentation at the meeting; abstracts of 200 to 500 words are required. Deadline: *1 March*. (B. R. Fish, Health Physics Division, ORNL, P.O. Box X, Oak Ridge, Tenn. 37831)

Courses

A research program in **fertilization mechanisms and gamete physiology** will be offered by the Marine Biological Laboratory, Woods Hole, Mass., 12 June to 29 August. Emphasis will be on current problems exemplified by marine invertebrates. Pre- and postdoctoral applicants may participate. Deadline: *21 February*. (C. B. Metz, Institute for Space Biosciences, Florida State University, Tallahassee)

The Bermuda Biological Station and Lehigh University plan a postgraduate seminar on problems of **marine organism sediment interrelationships**, 19 July to 30 August, in Bermuda. Graduate students in geology, biology, or oceanography are eligible. The course is supported by an NSF grant. Deadline for applications: *15 March*. (K. E. Chave, Marine Science Center, Lehigh University, Bethlehem, Pa.)

A research participation program in **marine science** is available for college teachers, 15 June to 4 September at the Virginia Institute of Marine Science. It is designed for college teachers wishing to do personal research at a marine station. The Institute is also offering an undergraduate science education program, 15 June to 21 August, for persons interested in the career possibilities

of marine science. Stipends are available under NSF support. Deadline for applications: *28 February*. (R. S. Bailey, NSF Programs, Virginia Institute of Marine Science, Gloucester Point, Va.)

Western Reserve University will offer its lecture series, "**frontiers in chemistry**," Friday evenings, 17 February to 17 April. The lectures will be divided into two groups—modern techniques in chemistry, and organometallics—presented on alternate weeks. Tickets are available to each group of lectures for \$15; they may be ordered in advance from the Division of General Studies, Western Reserve University, 122 Baker Bldg., Cleveland, Ohio 44106.

Three internships in **medical librarianship** are available at the Biomedical Library, University of California Center for Health Sciences, Los Angeles. The program includes a year of planned work, plus courses in foreign languages, documentation, biological sciences, or history of science. It has been approved for level-II certification by the Medical Library Association. Applicants must be U.S. citizens and hold master's degrees from library schools accredited by the American Library Association. Deadline for applications: *30 March*. (Louise Darling, Biomedical Library, University of California Center for Health Sciences, Los Angeles, Calif. 90024)

The Food and Drug Administration and Georgetown University have established the FDA Institute for **Advanced Analytical Chemistry**. Four 12-week sessions a year are planned; the first began 6 January. The courses will be 30 hours a week, including both class and laboratory work on advanced theory and the applications of instrumental methods to analytical chemistry; graduate credit may be given. Enrollment will be limited, with FDA chemists receiving priority. Further information on the program is available from Louis C. Baker, head of the chemistry department at Georgetown University, Washington.

Grants, Fellowships, and Awards

A Swiss foundation has established a 3-year **research fellowship fund** in Israel for young scientists from "the developing nations" of the world. The

\$75,000 fund has been made available by the Bernard van Leer Foundation of Lucerne. Recipients, who may be no more than 35 years old, will study at the Weizmann Institute of Science, Rehovoth, and will return to their native countries when their fellowships expire.

Applications are available from the University of Southwestern Louisiana for a summer institute in **microbiology**, 8 June to 7 August. Applicants must be college or junior college teachers of biology; participation will be limited to 30. Two courses will be offered, biology and modern microbiology, for a total of 6 credits. The institute is sponsored by a grant from the National Science Foundation. Participants will receive stipends, dependency allowances, and partial travel reimbursements. Some housing will be provided. Deadline for applications: *1 March*. (J. R. Oliver, U.S.L. Summer Institute, Box 113, U.S.L. Station, Lafayette, La.)

Two clinical fellowships in **oral pathology** are available at the University of Pennsylvania dentistry school. Both last 1 year, beginning 1 July, and are open to U.S. citizens. One award, sponsored by the Philadelphia division of the American Cancer Society, carries a \$4800 stipend. The other, offered by the society's National organization, has a \$3600 stipend. Deadline for applications: *1 March*. (Chairman, Committee on Traineeships and Fellowships, University of Pennsylvania, School of Dentistry, 4001 Spruce St., Philadelphia 4, Pa.)

The Merrill-Palmer Institute, Detroit, Mich., is offering graduate **fellowships and assistantships** for the 1964-65 academic year. The grants will be for interdisciplinary study on human development, family, and society, internship in counseling and psychotherapy, or early childhood education. Deadline for applications: *1 March*. (Director of Admissions, The Merrill-Palmer Institute, 71 East Ferry Ave., Detroit, Mich. 48202)

The Bureau of **Child Research** at the University of Kansas is accepting applications for research fellowships at the pre- and postdoctoral and advanced training levels. The program promotes research in communicative and language disorders, mental retardation, learning and social behavior. Predoctoral stipends are from \$2200 to \$2400; postdoctoral stipends start at

\$5000. Candidates may be from any behavioral science discipline. (R. L. Schiefelbusch, Bureau of Child Research, 9 Bailey Hall, University of Kansas, Lawrence)

Scientists in the News

Yale University has appointed **John Bardeen** visiting professor of physics and applied science, and **Chen Ying Yang** visiting professor of physics for the spring term. Dr. Bardeen is a professor of physics and electrical engineering at the University of Illinois, and Dr. Yang is a physics professor at Princeton's Institute for Advanced Study.

Martin M. Cummings, associate director for research grants and chief of the office of international research at NIH, has been appointed director of the National Library of Medicine, succeeding **Frank B. Rogers**, who retired 1 September.

Richard Tousey, head of the U.S. Naval Research Laboratory, has received the Navy's award for distinguished achievement in science. The award, and \$5000, went to him for his work in astronomy and in physical and physiological optics.

Gerald C. Phillips, chairman of the Rice University physics department, has been named a visiting scientist by the American Association of Physics Teachers and the American Institute of Physics. He will visit colleges and universities to present lectures, meet with students, and consult with faculty members about courses and apparatus "in an effort to promote greater interest in physics and physics education."

The Engineers Joint Council last month presented **Jerome B. Wiesner** its Citation of Merit for "his national service and contributions toward the development of technology, progress in science, and strengthening of engineering. . . ." Wiesner recently resigned as Special Assistant to the President for Science and Technology, to return to M.I.T. as dean of science.

Christian J. Matthew, former western division manager for Arthur D. Little Inc., in San Francisco, Calif., has been elected president of Research Specialties Co., a manufacturer of scientific instruments, in Richmond, Calif.