

SCIENCE EDUCATION

Lecturing and Advanced Research Abroad

US government grants provided under the Fulbright-Hays Act in university lecturing and advanced research have been announced for 1964-65. The regions covered by the grants include Europe, Africa, the Near and Far East, and South and Southeast Asia.

All grants require US citizenship; in addition, those for lecturers call for a minimum of one year of college teaching experience, while those for research require a doctoral degree or recognized professional standing, and, in certain cases, a knowledge of the language of the host country.

The closing date for applications is August 1. The necessary forms, and additional information, can be obtained from the Committee on International Exchange of Persons, Conference Board of Associated Research Councils, 2101 Constitution Ave., Washington 25, D. C.

Summer Programs

The Physics Department of the University of Wisconsin has announced that it will hold Summer Institutes for Theoretical Physics during the summers of 1963 and 1964. Funds have been provided by the National Science Foundation, and the program will consist of informal discussions and independent research, punctuated by twice-weekly seminars for reports on interesting recent research activities of participants. There will be no informal notes or proceedings, and the results of the Institute are expected to be manifested in the participants' research publications. Among those who will be present this summer are B. d'Espagnat (Paris), S. Fubini (Torino), R. Haag (Illinois), N. Hugenholtz (Groningen and Iowa), T. Kinoshita (Cornell), H. Miyazawa (Tokyo), and A. Wightman (Princeton). Theoretical physicists at Wisconsin will also participate.

Space permitting, the Institute will be open to any qualified theoretical physicist at the postdoctoral level, and, in special cases, to advanced graduate students. Limited stipend and travel funds are available. Inquiries should be directed to R. G. Sachs, Sterling Hall, University of Wisconsin, Madison 6, Wisc.

A post-graduate course in quantum electronics and coherent light will be held at Varenna, Italy, August 19-31, as part of the annual Enrico Fermi International School of Physics conducted by the Italian Physical Society. The course will be under the direction of Charles H. Townes of the Massachusetts Institute of Technology and the lecturers will include N. Bloembergen (Harvard University), P. Connes (CNRS, France), J. P. Gordon (Bell Telephone Laboratories), A. Javan and B. Lax (MIT), W. E. Lamb, Jr. (Yale University), A. L. Schawlow (Stanford Uni-

versity), and G. Toraldo di Francia (Università di Firenze).

The closing date for applications is June 20th. Further information can be obtained from Perry A. Miles, Department of Electrical Engineering, Massachusetts Institute of Technology, Cambridge 39, Mass.

A graduate-level summer school on semiconductors will be held in Salonica, Greece, from August 5 to 14, under the auspices of NATO. Lectures will be given in English or French. The school will be followed (August 19 to 30) by a meeting concerned with the latest advances in semiconductor physics. The organizers suggest that scientists planning to attend the International Congress on Crystallography, which starts on September 5 in Rome, may wish to attend the Salonica meeting as well. Application forms can be obtained from Prof. K. Alexopoulos, Laboratory of Physics, Solonos str. 104, Athens 144, Greece. The completed forms must be received before July 15 by Dr. N. Economou, Department of Physics, University of Salonica, Salonica, Greece.

The College of Engineering of the University of Michigan is offering intensive noncredit courses in infrared technology and in optics this summer.

A course on fundamentals of infrared technology (August 12-16) will cover the physics of infrared detection, detecting devices, optics, optical masers and components, systems design and utilization, and related topics.

A course on special topics in optics will take place from August 19 to 23, and will consist of a series of lectures on a variety of subjects, including infrared systems.

The fee for each course is \$160; complete information can be obtained from the Conference Secretary, Engineering Summer Conferences, West Engineering Building, University of Michigan, Ann Arbor, Mich.

A two-week course on the statistical theory of macromolecules will be given at Dartmouth College from August 19 to 30 under the sponsorship of the National Science Foundation. Intended for students, teachers, and research workers in physics, chemistry, or biology, the program is offered as an aid to scientists who wish to gain a working knowledge of the statistical mechanics of macromolecular systems and to increase their competence in applying molecular theories of polymer behavior. Attempts will be made to define the basic unsolved problems in each of several fundamental areas. Lectures and discussion groups will be conducted by Walter H. Stockmayer, professor of chemistry at Dartmouth, and by Marshall Fixman, professor of chemistry and director of the Institute



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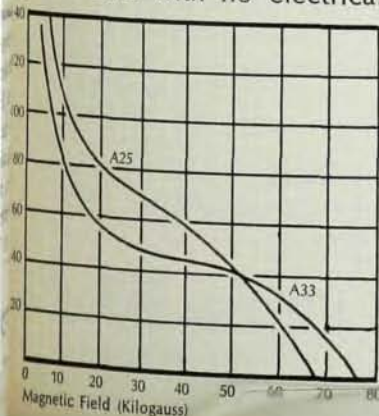
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of Theoretical Science at the University of Oregon. The over-all cost for each participant will be \$600 for the two weeks.

Additional information can be obtained by writing to the Dean of Summer Programs, Dartmouth College, PO Box 833, Hanover, N. H.

Precision Measurement Seminars

The National Bureau of Standards has announced tentative plans for a series of precision-measurement seminars to be held both at its Boulder and Washington, D. C., laboratories. The intent is to find a way whereby qualified senior personnel from measurement laboratories may benefit from the Bureau's long experience in dealing with measurement problems.

The proposed seminars are to range in duration from a few days up to two weeks, and they will offer lectures and discussions as well as laboratory sessions. If there is sufficient interest, the Bureau will hold seminars on frequency comparison techniques (Boulder, tentatively October 9-11), length measurements (Washington, tentatively October 14-18), attenuation measurement (Boulder, tentatively October 21-25), precision and accuracy in measurement and calibration (Washington, tentatively November 4-8), and acoustical measurements (Washington, tentatively December 4-6). The Bureau is also interested in suggestions for additional topics to be dealt with in future seminars.

Applications to attend the seminars are due by August 1. Those interested in seminars to be held at the Washington laboratories should write to W. R. Tilley, Office of Technical Information, Room 500 South Building, National Bureau of Standards, Washington 25, D. C.; applications to attend the Boulder seminars should be sent to E. H. Brown, Education Director, Boulder Laboratories, NBS, Boulder, Colo. Information regarding programs and prerequisites for participation can be obtained from these two sources.

The Bureau is also offering an intensive three-week course in electromagnetic measurements and standards. Details concerning this course, which runs from July 22 to August 9, can be obtained from E. H. Brown at Boulder.

Graduate Program

St. Paul's College, at the University of Manitoba, has recently established a physics research laboratory in which research in low-energy physics is planned. The college is also commencing a course of graduate studies leading to a master's degree in physics, and applications are being accepted from students in their final year of undergraduate study. Graduate assistantships up to \$2000 in value are available to applicants with outstanding academic records and high recommendations.

Application forms and further details will be sent on request by the Dean of St. Paul's College, University of Manitoba, Winnipeg 19, Canada.