

SCIENCE EDUCATION

Departmental Programs

Princeton University has announced the formation of a new Department of Astrophysical Sciences, representing an enlargement in scope of the University's Department of Astronomy. The new department, headed by Lyman Spitzer, Jr., will consist of three sections: (1) astronomy and astrophysics, (2) plasma physics, and (3) atomic and molecular physics.

Work in the first area will include classical astronomy as well as space-oriented research with telescopes, carried up in succeeding stages by balloons, rockets, and satellites, thus making possible views of the universe unhampered by the highly absorbing and fluctuating atmosphere of the earth. Balloon-borne telescopes already have been constructed and operated in projects carried out under the direction of Martin Schwarzschild, working with R. E. Danielson and N. J. Woolf. The 36-inch balloon telescope (Stratoscope II), which has been developed for high-resolution photography of the planets, stars, and nebulae, is scheduled to make its first observations next year. Somewhat later, it is planned to orbit a 32-inch satellite telescope for stellar spectroscopy in the extreme ultraviolet under a program directed by Prof. Spitzer in association with J. B. Rogers, Jr., D. C. Morton, and K. Dressler.

The new department will continue to maintain close association with the Plasma Physics Laboratory at Princeton, which is devoted to basic experimental and theoretical research in plasma physics and controlled thermonuclear fusion. The existing interdepartmental program of graduate education in the field of plasma physics, jointly sponsored by the Departments of Aeronautical, Electrical, and Mechanical Engineering, Astronomy, and Physics will henceforth be sponsored by the Department of Astrophysical Sciences. Arrangements will continue to be made both for giving courses to satisfy the needs of other departments having an interest in plasma physics and for guiding the research of graduate students. In the area of atomic and molecular physics, work will continue to concentrate on spectroscopic studies applicable to astrophysical and plasma problems, and fundamental studies will be expanded.

It is planned that graduate students will be admitted to the Department of Astrophysical Sciences in the fall of 1963, and that fellowships and teaching and research assistantships will be available at that time.

Kansas State College of Pittsburg, Kan., has divided its Department of Physical Sciences into separate Departments of Physics and Chemistry under a reorganization plan that calls for housing the Physics Department in a new four-story mathematics-physics building

now being constructed on the campus. The new building, which is expected to cost approximately \$750 000, will bear the name of the late James Alexander Yates, the first head of the Department of Physical Sciences at the College. It will provide 40 000 square feet of space, to be divided between the Department of Physics and the Department of Mathematics, and will contain a 250-seat auditorium and, at a later date, a planetarium. The building will also house the College's computing facilities, including a digital computer and an analog computer.

The new Physics Department, which will offer a physics major and a graduate course in physics leading to the MS degree, is headed by T. Bruce Daniel. Robert Hight, formerly an associate physicist at Midwest Research Institute, has joined the Department as assistant professor of physics.

A new Department of Atmospheric Science has been established at Colorado State University in Fort Collins. Under the direction of Herbert Riehl, the Department is currently offering MS degrees in atmospheric science and is contemplating the addition of a PhD program in the near future. The department will take advantage of its Rocky Mountain locale by conducting research in areas having to do with weather and climate, including a study of the "mountain effect" in shaping large-scale weather trends. Facilities will include a hydraulics laboratory and a wind-tunnel facility. Information with regard to the availability of graduate assistantships can be obtained from Dr. H. Riehl, Department of Atmospheric Science, Colorado State University, Fort Collins, Colo.

Cornell University has created a new Department of Engineering Physics and Materials Science within its College of Engineering. The new department, which is intended to explore new areas of applied science and to facilitate the application of basic science to engineering problems, particularly those involving materials, has a teaching staff consisting of faculty members from the general field of materials science and from the Department of Engineering Physics established in 1946 to strengthen the physics curricula within the College. John P. Howe has been appointed director of the Department, and T. R. Cuykendall has been named associate director. Undergraduate and graduate programs will be administered under a steering committee composed of Professors Cuykendall, E. Scala, A. L. Ruoff, and H. S. Sack. The department will also provide undergraduate instruction in relevant subjects from cur-

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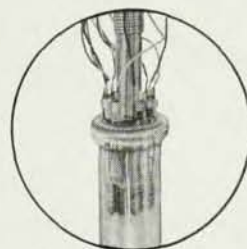
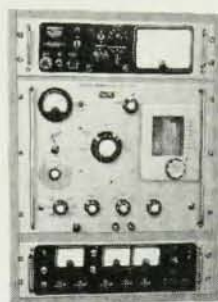
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ricula outside the College, incorporating basic scientific developments in its engineering programs, and determining those areas of research which are likely to produce technologies suitable for development within the department.

A formal program in chemical physics leading to the MS and PhD degree started at Kent State University, Kent, Ohio, in the fall of this year. The program was planned by a faculty committee from the Departments of Chemistry and Physics and its chairman is J. W. McGrath, professor of physics at Kent. Current research areas include crystallography, molecular spectroscopy, and magnetic and quadrupolar resonance. Teaching and research assistantships and fellowships are available.

Facilities

Oregon State University dedicated its new \$5 million science building at ceremonies held on October 26. The guest speakers included E. M. McMillan and W. F. Libby of the University of California and Homer Newell of the National Aeronautics and Space Administration. Located on the University's campus in Corvallis, the structure provides approximately 210 000 square feet of floor space and was designed to house several departments, including those of Physics, Chemistry, Oceanography, and Science Education, as well as Oregon State's Science Research Institute.

Two new research branches, an Upper Atmosphere and Space Sciences Division and a Geosciences Division, have recently been established as part of the Earth and Planetary Sciences Laboratory at the Graduate Research Center of the Southwest. The new divisions will be headed, respectively, by Francis S. Johnson, former manager of space physics research at the Lockheed Missiles and Space Co., and Anton L. Hales, former professor of geophysics at the University of the Witwatersrand in Johannesburg, South Africa.

The Earth and Planetary Sciences Laboratory will also include a geomagnetic observatory and magnet test facility, to be built in the near future. The project is to be a joint venture of the US Coast and Geodetic Survey, which will operate the station, providing both instrumentation and personnel, the Graduate Research Center, which will furnish land as well as scientific supervision, and Texas Instruments Inc., which will construct the building and auxiliary facilities. The observatory will be the Coast and Geodetic Survey's third geomagnetic observatory in the United States, two others being located near Tucson, Ariz., and Fredericksburg, Va. The complex will consist of a variometer building, an "absolute values" building, a structure to house a magnetometer, and a magnetic test facility containing instrumentation for precise magnetic measurements.

The Graduate Research Center of the Southwest was conceived in the early part of 1961 and established in