Upper Division (Professional Officer Course)

131A–131B–131C. Growth and Development of Aerospace Power. (3–3–3)

Two 1½-hour lecture and seminar meetings and one 1-hour laboratory per week. *Prerequisite: course 1A–B–C and 21A–B–C or equivalent.* Development and employment of airpower with emphasis on the problems of growth to its present stature as a prime security element of the armed forces; underlying and immediate causes of war, the nature of present warfare, and the principles of war to form a basis for understanding the organization, technological efforts, doctrine, and employment of modern military forces; space operations, including importance and development of the U.S. space program, vehicles, propulsion and power sources, guidance and control systems, problems in space exploration, and operations in space. The Staff, 131, (F); 131B (W); 131C (Sp)

132. Officer Advanced Military Training. (3)

Four weeks advanced officer training conducted at an active Air Force base for four-year program advanced cadets. Normally attended between junior and senior years. AFROTC Staff (Su)

141A–141B–141C. The Professional Officer. (3–3–3)

Prerequisite: course 131A–B–C. Leadership theory and techniques, individual and group behavior, problems in human relations, authority, responsibility and functions of junior officers and Air Force communications channels; problem solving, management principles and functions, and management tools, practices and controls; meaning of professionalism, professional responsibilities, the military justice system, and preparation for commissioned service.

Mr. Edwards, 141A (F); 141B (W); 141C (Sp)

142. Light Aircraft Operations. (3)

Prerequisite: *designation by Commandant, AFROTC, or approval by instructor.* Three 1-hour lecture and one 1-hour laboratory per week. Preparation for qualification as Federally-licensed Private Pilot. Studies cover Federal Aviation Regulations, basic meteorology for pilots, navigation by dead reckoning and pilotage, radio and radio navigation, elementary aerodynamics and aircraft structures.

The Staff (F)

AGRICULTURAL CHEMISTRY

Administered by an Interdepartmental Group

David L. Brink, Ph.D., *Professor of Forestry.*
Harold T. Gordon, Ph.D., *Lecturer in Entomology.*

Graduate Advisers: Mr. Brink, 145 Mulford Hall; Mr. Gordon, 110 Agriculture Hall.

Work in agricultural chemistry is available only at the graduate level. It is desirable that students have the equivalent of the bachelor's degree in chemistry from the University of California. Minor deficiencies may be removed by taking suitable courses after admission.

Study leading to the Ph.D. degree is offered by an interdepartmental group of agricultural chemists who are engaged in research. This field is open to students interested in the application of chemistry to agricultural problems. Courses may be taken in various departments in the College of Agricultural Sciences, the Department of Biochemistry in the College of Letters and Science, the College of Chemistry, and the School of Forestry and Conservation. Graduate research is directed by a member of the group whose activities most closely coincide with the interests of the student. The following special fields are represented: insecticide chemistry and insect biochemistry in the Department of Entomology and Parasitology; soil chemistry and plant nutrition in the Department of Soils and Plant Nutrition; wood chemistry in the School of Forestry and Conservation; food chemistry and animal nutrition in the Department of Nutritional Sciences. In addition to his major field of specialization, each predoctoral student must take such courses in chemistry, biochemistry, and allied sciences as may be necessary to enable him to pass a qualifying examination in agricultural chemistry. For further details, consult the adviser.

Graduate Course

299. Research in Agricultural Chemistry. (1–12)

Agricultural Chemistry Group (Mr. Brink in charge) (Su, F, W, Sp)