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Science Instruction at the University Study Center, United States Army, Florence, Italy

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THE UNIVERSITY STUDY CENTER and the Student Detachment, University of Florence, Italy, known jointly and officially as the University Training Command, Mediterranean Theater of Operations (UTC, MTOUSA), represent the earliest experiment in establishing Army universities overseas. The University Study Center in Florence originated in 1943, when the War Department sought to provide educational opportunities for American military personnel in the Mediterranean Theater. As in the European Theater, concern was evidenced for the large number of troops that would necessarily remain in Italy and Africa for some time after V-E Day while awaiting their redeployment or discharge. Accordingly, plans were initiated from Washington in November 1944 for a university in the Mediterranean Theater. The UTC was activated under Brig. Gen. Foster J. Tate, former professor of military science and tactics at the Virginia Military Institute, and the first session of the University began on 1 July 1945.

ADMINISTRATION

Unlike the sister Army universities in the European Theater of Operations, Shrivenham (England) and Biarritz (France), the UTC at Florence was organized and operated in its opening session exclusively by military personnel recruited from within the Mediterranean Theater. Requests had been made for the names of military personnel with prewar backgrounds of educational activities, and the original staff was selected on the basis of academic qualifications. At the close of the first session the Commandant, Brig. Gen. Tate, was transferred to Washington and was succeeded by Col. John W. Harmony (Inf.), formerly of the U. S. Military Academy. The Commandant acted as president of the University Study Center, and an Assistant Commandant, Col. Irving C. Whittemore (CAC), formerly professor at the Boston University School of Business Administration, functioned as vice-president. Col. Wentworth Williams (Inf.), associate professor at Boston University School of

Business Administration and a graduate of the Command and General Staff School, performed the role of dean. Capt. Verna A. McCluskey (WAC, AC) was dean of women, caring for the limited enrollment of WAC's and Army Nurses. Capt. Gordon C. Atkins (AC) was secretary of the faculty. The administration was rounded by the additions of Adjutant General, who was registrar; assistants to the president; assistant deans (for general counseling services); officers in charge of athletics and recreation; librarian; and Commandants of Troops, Military Operations and Services, Supply, and Finance, with their numerous assistants and office staffs, all of whom were military personnel.

CAMPUS

The campus was the spacious Fascist School of Applied Aeronautics, built in 1938 and consisting of many large modern buildings well suited for the demands of instruction. The campus was beautifully landscaped and situated in the equally beautiful Casine Park, about two miles from the center of Florence. The buildings were named to preserve the traditions of home and were officially called Harvard, Yale, Princeton, Cornell, Duke, Vanderbilt, and Stanford, with innumerable temporary annexes. There were 25 modern classrooms in the official buildings, administrative offices, and Red Cross Center. Within the campus were athletic fields, gymnasium, swimming pool, riding track, etc. The station complement numbered 500, and in addition some 400 POW's worked as janitors and kitchen help. Students not billeted at the University Study Center were quartered in Florence, in the former 5th Army Rest Center, which was the recently completed, thoroughly modernized railroad station, now inoperative. The faculty and administrative staff were housed in the city, in hotels which acted as residential clubs. The physical organization of the university, the provision for instruction and residence, was uniquely modern and up to date for efficient and effective university life.

PERSONNEL

The Administration consisted of 11 officers, their assistants, and complement. Of this number three held the Ph.D. degree; two were graduates of the U. S. Military Academy with the B.S. degree; three others held M.A., M.S., and M.Litt. degrees, respectively; one had a B.S.; one, a B.A.; and one held no degree.

The teaching faculty consisted of 219 members ranging from privates to lieutenant colonels. Of this number, 28 were doctors; 65, masters (24 with additional graduate study); and 83, bachelors (15 with additional graduate study).

With the beginning of the second session on 5 August, civilian instructors were called from colleges, universities, and government bureaus in the United States to augment the rapidly expanding program. By the end of this session and the beginning of the third, 41 additional instructors were conducting classes. The home colleges and universities from which they came included: North Carolina, Connecticut State, Iowa, Goucher, Los Angeles City College, American, Duke, West Virginia, Chicago, George Washington, South West Missouri, Miami, Minnesota, Georgia, Massachusetts State, City College of New York, Nebraska, Yale, Manchester, Pomona, Missouri, North Carolina State, Knox, Hunter, Wilson State Teachers, Wayne, Kentucky, and Louisiana State.

A distribution of their academic and professional status shows that of this total there were 30 Ph.D.'s, 7 M.A.'s, 1 M.B.A., 1 M.S., 1 B.S. (Agricultural), and 1 unclassified (Art), and that the number comprised 17 professors, 7 associate professors, 5 assistant professors, 1 teaching fellow, 2 lecturers, 1 business manager, 7 government employees, and 1 who was unclassified.

The entire faculty, including the Administration, consisted of 31 doctors, 68 masters, and 86 bachelors.

STUDENT SELECTION

The admission of students to the University Study Center was made on a reasonably high selective rating. The minimum admission requirements specified high school graduation, some previous college training, or a minimum Army General Classification Test score of 105 points. This latter requirement was five points less than the number required for attendance at an Officer Candidate School. Students were selected by their own Army units and sent on the basis of quotas allotted to major commands by the UTC.

SESSIONS AND CURRICULA

An official session for attendance at the Study Center was four weeks. Each fifth week was used to complete all military and academic records, return

to their units men who were not remaining for the ensuing session, and receive and billet new students. All courses met for a period of 55 minutes five days each week, Saturday morning being left for one-hour orientation lectures on current political and related events. In addition, there was one daily period of physical training. A student taking two sessions earned approximately the equivalent of a three-semester-hour credit for each course taken. The normal teaching load for the faculty was three courses per session.

The academic calendar consisted of four sessions: 2 July–5 August, 8 August–9 September, 12 September–14 October, and 17 October–17 November 1945. The Student Detachment at the University of Florence began on 9 August and ended on 27 October 1945.

Courses were offered under the Departments of Agriculture, Biological Sciences, Business Administration, English, Education, Fine Arts, Languages, Mathematics, Physical Sciences, Social Sciences (including economics, history, philosophy, political science, psychology, and sociology), and Physical Education. Those offered the Student Detachment at the University of Florence included Fine Arts, Languages, Literature, Science, Social and Political Science (including civil and commercial law, criminal and constitutional law), and Psychology.

EDUCATIONAL OPPORTUNITIES IN THE SCIENCES

Biological sciences. The Department of Biological Sciences at the University Study Center was staffed by 13 instructors—4 officers, 6 sergeants, and 3 civilian instructors, as follows:

Maj. Frank H. Connell, SnC (chairman, Session I), Zoology; Capt. Milton F. Kernkamp, CMP (chairman, Sessions II, III), Biology; Henry W. Olson (chairman, Session IV), Biology; Maj. Robert J. Reedy, SnC, Bacteriology; 1st Lt. James A. Green, QMC; Sgts. Hugh C. Sauer, William C. Beckman, Beryl F. Capps, John L. Stewart, Martin J. Ulmer, and Alan D. Randall, WOJG; Augustus T. Miller, Jr., and Archibald W. Bell.

Lectures and some laboratory work were offered in the University Study Center, but the greater part of the laboratory courses were given in the University of Florence. The Rector Magnificus, Prof. Piero Calamandrei, had generously offered the use of whatever libraries, classrooms, and laboratories were needed, and through his official cooperation and vigorous assistance the Study Center was able to offer some 40 courses in geology, physics, chemistry, zoology, botany, biology, bacteriology, and psychology. The University of Florence was relatively well supplied with microscopes, slides, models, charts, etc. In the University Museum was a collection of wax models which is probably the finest exhibit of its kind in the world. For

the study of anatomy this collection is superb. Every organ, muscle, and system is portrayed in different aspects and in various degrees of dissection. The Museum was open constantly for observation.

The bacteriology classes were held in a very modern laboratory building provided with excellent equipment. The Museum of Zoology offered a fine collection of vertebrate and invertebrate animals gathered from all over the world. The botany library likewise was considered one of the finest in Europe, and the Herbarium, one of the largest. Courses in General Biology (I, II), Botany (I, II), Zoology (I, II), Physiology (I, II), Anatomy (I, II), and Bacteriology (I, II), were offered biological students by the Study Center.

Physical sciences. The Department of Physical Sciences, consisting of physics, chemistry, geology, and mineralogy, was administered by a staff of 21 instructors—13 officers, 5 sergeants, and 3 civilian instructors, as follows:

Capt. Ulysses S. Jones, Jr., FA (chairman, Sessions I, II, III), Chemistry; Capt. Ludwig Audieth, Ord. (chairman, Session IV), Chemistry; Maj. Kenneth W. Glace, QMC, Chemistry; Maj. Claude V. Pevey, CE, Physics; Capt. Harold E. Calbert, Inf., Chemistry; Capt. Nelson A. Terhune, SC, Physics; Capt. Thomas S. Schreiber, SC, Physics; Capt. Isadore Zipkin, SnC, Chemistry; 1st Lt. Robert M. Crisler, Inf., Geology; 1st Lt. George E. Prichard, Inf., Geology; 1st Lt. William S. Morton, Ord., Chemistry; 1st Lt. William J. Jackson, Jr., SC, Physics; 1st Lt. Jerome Saldick, AC, Chemistry; T/5 Sgts. George V. Hill, Physics; Joseph P. Larocca and Robert B. Power, Chemistry; and Claude Quigley, Geology; S/Sgt. Henry E. Wendon, Geology; Walter D. Keller, Geology; William W. Mutch, Physics; and Victor A. Goedicke, Astronomy.

The physics laboratories at the University of Florence were used by students enrolled in the University Study Center. These laboratories were well equipped with apparatus for the usual experimental work in general physics, including mechanics, sound, heat, electricity, and optics. The famous Florentine Observatory, where Galileo did most of his work, was also at the disposal of the students together with a library of rare books, including Galileo's original notes and telescope.

Three chemistry laboratories at the University of Florence (qualitative, general, and organic), with all reagents necessary, were available to the students at the Study Center. The library contained volumes rarely available in the United States.

The entire physical plant of the Instituto di Geologia e Paleontologia of the University was placed at the disposal of the UTC. The plant consisted of a large, three-story building housing the Museum of Vertebrate Paleontology, several thousand mounted

and articulated vertebrate specimens, and life groups, with individual exhibits in the Museum of Invertebrate Paleontology. Over 100,000 fossils, ranked according to geologic age and obtained from the sedimentary deposits of all continents, were uniquely arranged. The Regional Petrography Collections, in which are included suites of specimens from the major localities in Europe and Asia, such as the famous Simplon Tunnel section, completed the geologic stock in trade. Teaching aids included a collection of rock and fossil specimens for classroom use, a balopticon and projection machine, a large collection of geologic and paleontologic wall charts, a set of U. S. Geological Survey folios and topographic maps, topographic maps of Italy, block models, and photographs. A library of 12,000 volumes in this building was ably supplemented by scientific periodicals from the United States, Great Britain, Germany, Italy, France, and Japan. Unfortunately, many of these did not pass beyond the year 1939. This was typical of most of the scientific books and journals, due to prohibitions placed on current literature by the erstwhile fascist administrations.

For the large class enrollments a spacious hall seating 75 students was used; for smaller classes, rooms with seating capacities of 25 students.

Another factor contributing to the success of the geologic studies was the cooperation given by the director of the Astronomical Institute in making available the University Observatory, to which regular trips were made. Field trips took the students to the valley of the Mugnone River, north of Florence, and enabled students to acquaint themselves with some aspects of the regional sedimentary geology and structure and to study the physiography of the region, with its excellent examples of various stages of the fluvial cycle. Advanced students—those who were permitted to extend their residence beyond one session—were honored with trips to Perugia, with its fossils and erosional features. Numerous famous localities were within motoring distance, such as the marble quarries of Carrara, the volcanic regions of the Alban Hills, Naples with its Vesuvius, and the mercury deposits of Monte Amiata.

For studies in mineralogy the facilities of the Instituto di Mineralogia, Petrologia e Geochimica were open to the UTC, under the same conditions that prevailed in the case of the Instituto di Geologia e Paleontologia. The Institute is housed in a large building adjoining that of the Institute of Geology and contains a well-mounted and labeled collection of petrographic types, a library of 8,000 volumes, important mineralogic periodicals up to the year 1939, and laboratories. A spectrograph, petrographic microscopes, numerous wall charts, and crystal models in glass were on hand.

The courses offered in the Department of Physical Sciences were: Introduction to College Chemistry (I, II, III), Organic Chemistry (I, II, III), Qualitative Chemical Analysis, Physical Chemistry, A Beginning Course in Physical Geology, Mineralogy, Physical Geography, Historical Geology, General Physics (I, II, III, IV), Survey of Physical Science (I, II), Basic Electricity, and Astronomy (I).

Psychology. The enrollment in psychology at the Study Center was particularly heavy. The courses consisted of Introduction to Psychology (I, II), Child Psychology (I, II), Psychology of Adjustment (I, II), Abnormal Psychology (I, II), and Psychology of Marriage and the Family. This last-named course and the course in Child Psychology were given by popular demand and apparent need on the part of the students, many of whom had left at home young families and others of whom were contemplating marriage on their return. The course on marriage was not offered until the third session. Three hundred students enrolled, and when the course was repeated in the fourth and last session, 775 joined its ranks.

The psychology courses were listed under the Department of Social Sciences, together with economics, history, philosophy, political science, and sociology, under the direction of Lt. Col. John H. Hougen, JAGD. In the Student Detachment at the University of Florence, psychology was included in the semester's curriculum. The Institute of Psychology, with its spacious laboratory located at Via Cesare Battisti, provided space for lectures and laboratory facilities. These courses were conducted mainly by the staff in psychology at the University of Florence. At the University Study Center there was no provision for experimental psychological studies. The staff consisted of 5 officers and 2 civilian instructors, as follows:

Lt. Col. John H. Hougen, JAGD (chairman, Sessions I, II, III, IV), Law; Lt. Col. Louis L. McQuitty, AGD, Applied Psychology; Capt. Kenneth S. Hitch, AGD, General Psychology; Maj. Raymond Sobel, MC, Abnormal Psychology; 1st Lt. Jacob S. Kounin, AGD, General Psychology; Lester A. Kirkendall, Psychology of Marriage; and John E. Bentley, General and Child Psychology.

Course 1000. A limited number of students with advanced qualifications were allowed to register for what was known as Course 1000, offered by all departments at the University Study Center. This course permitted individual study under the guidance of a faculty member, approved in advance by the department chairman and the dean.

ENROLLMENT AND QUALITY OF STUDENTS

The Study Center, working on a minimum-month-session, in the course of its entire history of four sessions, or four months, enrolled 8,150 students. Each session averaged approximately 2,000 students. The Student Detachment at the University of Florence enrolled 350 students. The aggregate for students in the biological and physical sciences at the Study Center was as follows:

	<i>Biological Sciences</i>	<i>Physical Sciences</i>
Session I	55	247
II	167	399
III	160	309
IV	85	164
Totals	467	1,119

The registration in psychology for classes with an enrollment over 100 was:

	<i>General Psychology</i>	<i>Psychology of Marriage and the Family</i>
Session I	186	Not offered
II	310	Not offered
III	295	300
IV	236	775

The total enrollment in all classes in psychology for the four sessions, including those with less and those with more than 100 students, was 2,330.

With few exceptions the students were capable and deeply interested. Their war experiences had matured them both physically and mentally, and the majority were anxious to learn and prepared to work hard. As the dean (Col. Williams) said from time to time: "The men know what they want and demand it." The results of their efforts were noticeably commendable.

113th Meeting, AAAS, Boston—

The Convention Bureau of the Boston Chamber of Commerce will handle all reservations through its own housing agency. Reservations should therefore be sent, not to the hotel directly, but to the Convention Bureau, care of AAAS Housing. See page 3 of the advertising section of this issue for a list of hotel room rates and a reservation blank.