

Federal Security Agency
U. S. OFFICE OF EDUCATION
Washington

ENGINEERING, SCIENCE, AND MANAGEMENT WAR TRAINING

Information Bulletin

Origin and Purpose - The Engineering, Science, and Management War Training program is the successor of the Engineering Defense Training program of 1940-41 and the Engineering, Science, and Management Defense Training program of 1941-42. The first of these was established to provide short engineering courses of college grade, to be given in engineering schools and designed to meet the shortage of engineers with specialized training in fields essential to the national defense. Under it, approximately 108,000 persons were enrolled in courses offered by 144 institutions at a cost of about \$6,138,000. The ESMDT program of 1941-42 was authorized to train in the fields of chemistry, physics, and production supervision, as well as in engineering. Courses were offered at 196 institutions at an approximate cost of \$20,015,000. About 450,000 trainees were enrolled.

Present Status - On June 30, 1942, in Public Law 647 - 77th Congress, 2nd Session, a sum of \$30,000,000 was appropriated to continue the training of engineers, chemists, physicists, and production supervisors through the fiscal year ending June 30, 1943 to provide professional and sub-professional personnel in those fields for the war effort.

Organization of Courses - Tax-exempt colleges and universities offering recognized degrees with majors in engineering, chemistry, physics, or production supervision, are eligible to participate in Engineering, Science, and Management War Training (ESMWT). Before a course is organized, the institution sponsoring it surveys war training needs through consultation with nearby industries and with the ESMWT regional adviser for the area concerned, and estimates the probable number and qualifications of those available for the training. If conditions are favorable, one or more short courses are designed to prepare available trainees for jobs in which personnel shortages are recognized.

Pertinent information, including estimates of costs, is sent to the U. S. Office of Education in a formal proposal to give each course that is planned. Those proposals that meet all legal, educational, and practical standards are approved and instruction may begin as soon thereafter as qualified trainees can be enrolled. More proposals may be submitted whenever additional training needs are discovered.

Types of Instruction - Regional differences in facilities and in war training needs dictate wide variations in the courses offered. Some are designed to prepare trainees for new fields of work; others to fit those already employed in war activities for more difficult and responsible assignments. Classes may meet on the college campus or elsewhere, and many institutions are giving instruction in a number of cities simultaneously. All classes, however, receive personal instruction from qualified teachers, and no correspondence courses are offered. Some courses require the full time and attention of those enrolled; others are given after working hours for the benefit of employed persons. The time required to complete a course may vary from a few weeks to several months, depending upon the extent and nature of the training. Subjects range from basic courses, such as engineering drawing and production supervision, to refined specialties, such as geometrical optics and the X-ray diffraction analysis of metals. In general, the courses offered at any institution reflect the training needs of war industries in its area; but some courses

are designed to meet Nation-wide needs of the armed forces and other governmental agencies engaged in war activities.

Although all instruction under ESMWT is of college grade, it is not a substitute for regular courses of study leading to degrees. Obviously, the equivalent of an undergraduate curriculum of at least four years cannot be compressed into a training course of a few months duration.

Selection of Trainees - Although ESMWT courses are available without restriction as to age, sex, race, or condition of employment, prospective trainees must be employable at the kind of work to which the training is directed, and must meet the prerequisites for the course. These vary with the complexity of the subject and the purpose of the training. In general, a high school education is the minimum qualification for admission to ESMWT classes; certain of the more advanced subjects, by their nature, require from one to four years of previous college study. When the number of applicants exceeds available accommodations, selection of those best qualified to meet the purpose of the course must be made.

Regularly enrolled college students may not be admitted to any ESMWT course unless they intend, upon its completion, to enter war employment or the armed forces and do not intend to reenroll in college within the next academic year.

Costs - The Federal Government pays the cost of instruction. No tuition or fees are required of ESMWT enrollees, therefore. Trainees must pay for textbooks and minor supplies, however, and they must defray their own living and transportation expenses. In some courses, small deposits to assure the proper use and return of institutional property are required.

Selective Service - The effect, if any, of enrollment in or completion of an ESMWT course upon the status of a man who is registered under the Selective Service Act can be determined only by his Selective Service Local Board in consideration of his individual circumstances.

Placement - Jobs cannot be guaranteed those who successfully complete ESMWT courses. The training is designed to meet immediate and prospective war needs, however, and the facilities of college placement bureaus, the U. S. Employment Service, and the U. S. Civil Service Commission will be utilized in finding placements for trainees. The individual colleges and universities can best advise concerning employment opportunities for those completing specific courses.

Where to Apply - Because full responsibility for the conduct of approved courses and for the selection and admission of trainees rests with the institution, and because local personnel needs of war activities will determine what instruction is offered in any area, inquiries concerning available courses, their content, duration, and prerequisites should be addressed to the ESMWT institutional representative at one or more of the cooperating institutions. That official can, also, advise concerning course content, recommended texts, and dates on which courses start. Upon request, the U. S. Office of Education will furnish a list of participating institutions. As noted above, correspondence courses are not available through ESMWT.