

Schedule changes planned to facilitate war program

In all probability, there will be a great many changes brought about during the beginning of next year, according to Dean Peebles. Illinois Institute of Technology will see a greater and more accelerated program in the form of a three semester year and a greater amount of credit hours to be carried by each student. Dean Peebles anticipates that it will be necessary for students to carry, on the average, twenty credit hours instead of the past average of eighteen.

Changes are expected in both the Army and Navy reserve programs, whereby the time allowable

for students to complete their studies will be shortened. Some subjects which are deemed unnecessary will be eliminated. The chief revision will be in changing of time that students may stay in school.

Plans have been made by the departments in preparation for any eventuality. Most of the departments have prepared tentative programs based upon six semesters (in two years) covering 120 credit hours. These have been formed to accommodate a large student body made up of Army and Navy reserves, since it is anticipated that most of the men remaining in school will be in the reserves.

Women take place in war industry

Paul V. McNutt, chairman of the War Manpower commission, recently announced that in the very near future, one out of every three war workers would be a woman. This is apparent when the extensive draft schedule is considered—thirteen million men between the ages of 18 and 45 soon to be serving in the Armed Forces. Therefore it is necessary that the facilities for training this corps of women workers be provided.

Illinois Institute of Technology is providing these facilities to women interested and eligible for training for war jobs. Since no tuition is charged, the training does not and will not lead to academic credit. Although employment is not guaranteed upon completion of training, it is almost a certainty. The placement director of war training for women cooperates with students and prospective employers in an effort to place each graduate. Each course presented has its own requirements. A list of these subjects with their requirements may be obtained from the office of war training for women at the west campus.

Teen age education plans in Army's hands

by Jay Richter
ACP News Service
WASHINGTON — (ACP) — Right now the lid is down tight on information concerning the army's plan for sending drafted 'teen age men back to college. Officials and educators here say it soon will be spelled out in detail.

However, it is a virtual certainty that all 18 and 19 year olds who are drafted—whether or not they're college men—will be eligible to take tests to determine whether they shall be assigned to colleges and universities for technical and scientific training. They probably will be selected on the basis of education, as well as for "qualities of leadership, military ability and aptitude for more education."

It is unlikely the 'teen age plan will resemble the current "contract" arrangement both the army and navy already have with some colleges. Under the contract plan, men already in the services are assigned to colleges for short periods of training, usually three months. It appears that 'teen age men will get longer periods of training of a highly specialized and intensive character.

West campus lunch carriers in new scenery

With the organization of intramural activities on the west campus and the extension of the athletic program, students who were accustomed to eating their lunches in the gymnasium, have now been furnished with a new lunchroom in the northwest corner of the basement. Elevator service, a milk bar, clean bright surroundings, fourteen tables complete with chairs, and the possibility of the installation of a juke box, are some of the innovations present in the mess hall.

Not only does this new lunch room lessen the overtaxed resources of the gymnasium but also provides more congenial surroundings for those students who bring their mid-day lunch. This room, formerly existed as a storage space is among the many rooms which have undergone revision necessitated by the expanded war training programs.

ESMWT adds two safety courses

Two new courses have been added to the Engineering Science and Management War training program at IIT.

One for Plant Protection Safety Inspectors, and the other a pre-engineering course for a group of women who will later embark upon the far more difficult course of Safety Engineering. The Plant Protection Course will be given in co-operation with the Safety & Security Branch, Office of the Chief of Ordnance, 333 N. Michigan Ave. The pre-engineering course will be given as a part of the War Training for Women course at the Lewis Division.

Ordnance group graduates

Women will outnumber men 20 to one Friday (Dec. 4) when a war-training class in ordnance inspection at Illinois Institute of Technology receives certificates of graduation.

A luncheon at 1 p.m. in the Stadium Grill, will climax nine weeks of full-time study for these trainees. The majority of them are employed by the Chicago Ordnance District and receive payment at the rate of \$120 per month while studying.

Prof. John I. Yellott, director of war training at Illinois Tech, will preside. He will present certificates, assisted by Prof. J. S. Kozacka, educational supervisor of ordnance inspection courses.

OCD to present industrial camouflage

An evening course in Industrial Camouflage is being organized and will be presented by Illinois Institute of Technology under the guidance of the Office of Civilian Defense. The course will be open to professional candidates only, including engineers, architects, landscape architects, industrial designers and other professionally qualified students. The tentative schedule calls for sixteen three hour periods to be held at the rate of two each week. The complete program will be announced shortly.

Radiation heat transfer rate essential problem in modern furnace design

In modern furnaces most of the heat is transferred by radiation and the determination of the rate of radiation plays an essential part in the design. One of the main difficulties is caused by the fact that radiation travels between any two points at different temperatures in a furnace which are located so that the one spot could be seen from the other one of any eye were placed there.

Thus, a furnace in operation must be considered as a system crossed by an infinite number of rays which have different intensity owing to the different temperatures of the radiating areas. Since the geometrical form of the interior of a furnace is not simple, one can imagine how complicated the configuration of the radiation between its areas will be. It is usual to determine this configuration by mathematical analysis or by actual experiments with bodies radiating and absorbing heat energy.

In two recently published papers the fact that light radiation is inherently the same phenomenon and is governed by the same laws as heat radiation has been used in setting up models in which light is used instead of radiating heat.

In the October issue of the Transactions of the ASME Dr. F. R. England of IIT and Professor H. O. Croft of the University of Iowa describe a model method in which the sources of heat radiation are imitated by light sources and the intensity of the radiation is measured by a photo-electrical cell which can be placed at any point on the sur-

faces where radiation arrives. The source of light was a quadratic white opal glass plate illuminated from below by nine bulbs. One of the models consisted just of a frame forming a cube with the light source as the bottom with the four sides and the ceiling open.

Bringing the cell to different points of these five areas the intensity of the arriving light was measured. This model represents the case of a furnace with total absorbing walls which would be hit by radiation from the bottom. Other models had solid walls painted in various shades from flat black to flat white paint.

The cell was inserted in holes in the walls. Making the wall shiftable the cell could be brought to every point of the surfaces. In this way the configuration factor for any area could be determined, that is the fraction of the amount of light received by that particular area to the total amount of light received by all furnace areas. Also, the re-radiation of the walls can be taken by this method as is shown in the experiments described in the paper.

Another optical model method has been published in the April issue of the Journal of Applied Physics and in the May issue of the IIT Research Publications by Professor Max Jakob of the Armour Research Foundation in co-operation with Professor George Hawkins of Purdue university. These investigators imitated the absorption of heat radiation by the absorption of light on photographic films.

BOOKS and SUPPLIES for IIT Students

We carry a large line of Handbooks
and Reference books
Fountain pens - Zipper case

GREENWOOD'S BOOK STORE

1953 W. Madison Street
Lewis Institute Bldg.

Seeley 3453

Our 28th Year

Open evenings till 10:00 p.m.