WAR DEPARTMENT

COMMITTEE ON EDUCATION AND SPECIAL TRAINING

SPECIAL BULLETIN

ON

PROGRAMS IN ENGINEERING

The programs here presented are not prescribed, but are examples of what will be approved. They are intended to indicate how existing programs may be modified by eliminations and condensations so as to meet the needs of the present emergency. Each program covers eight terms of twelve weeks, but it must not be inferred that every student entering on such a course will be kept at college until he completes it. The time that he will be permitted to pursue the course will depend on the needs of the service and the academic record of the student. In addition to the instruction indicated in these courses, eleven hours per week of military instruction are prescribed for the first two terms of the program, and six hours per week for the remainder of the program. The total time to be devoted to military and academic instruction, including examinations, lectures, recitations, laboratory work and supervised study, is 53 hours per week. The hours set forth in the programs attached represent the total time devoted each week to the subject named. The relation of the time given to study to that assigned to lectures, recitations and laboratory work varies considerably with the nature of the subject, but on the average the former is not more than half of the total time allotted. The subject, War Issues, which must be combined with English Composition, is, with the exceptions indicated in Section 26 of the Regulations of the S. A. T. C., prescribed for two terms with nine hours per week for lectures, recitations and study.

It is suggested that as far as practicable students in the Naval Section of the Students Army Training Corps follow an approved course in Mechanical Engineering. Steam and Gas Engine subjects are necessary for students who attempt to qualify for the Navy Engineering Schools.

CIVIL ENGINEERING

1ST TERM	Hours per week	2D TERM	Hours per week
Mathematics	12	Mathematics	12
Chemistry	12	Chemistry	12
*Drawing & Descriptive Geometry or Surveying	9	*Drawing & Descriptive Geometry or Surveying	9
War Issues & English Composition	9	War Issues & English Composition	9

*These courses will be divided between Surveying and Drawing in accordance with the season of year in which they come and the number of students registered. The total time allotment to Surveying is equivalent to 12 hours per week for one term.

3D TERM	Hours per week
Mathematics	12
Physics	14
Mechanism and Applied Mechanics	15
*Drawing & Descriptive Geometry or Surveying	6

4TH TERM	
Mathematics	9
Physics	14
Mechanics	15
*Surveying or Drawing	9

5TH TERM	
Theory of Structures	6
Materials	10
Railroad Engineering (including Drafting & Fieldwork)	15
Highway Engineering	6
Map Reading & Topographical Drawing	2
Geology	8

6TH TERM	Hours per week
Theory of Structures	9
Bridge Design	4
Railroad Engineering (including Drafting)	9
Hydraulics	13
Electrical Engineering	12

7TH TERM	
Theory of Structures	12
Bridge Design	10
Railroad Engineering	4
Heat Engineering	12
Hydraulic & Sanitary Engineering	9

8TH TERM	
Theory of Structures	12
Hydraulic & Sanitary Engineering & Design	16
Heat Engineering	9
Railroad Design	3
Sanitary Science & Public Health	1
Business Law & Accounting	6

MECHANICAL ENGINEERING

1ST TERM	Hours per week
Mathematics	12
Drawing & Descriptive Geometry	9
Chemistry	12
War Issues & English Composition	9

2D TERM	
Mechanism	9
Mathematics	12
Chemistry	12
War Issues & English Composition	9

3D TERM	
Mechanism & M. E. Drawing	10
Mathematics	12
Physics	14
Shopwork	4
Surveying, Map-Reading, and Topographical Drawing	7

4TH TERM	Hours per week
Applied Mechanics	12
Mathematics	12
M. E. Drawing	5
Physics	14
Shopwork	4

5TH TERM	
Heat Engineering & Eng. Lab.	15
Electrical Engineering	10
Applied Mechanics	12
Machine Drawing	6
Shopwork	4

6TH TERM	
Heat Engineering & Eng. Lab.	15
Hydraulics	11
Applied Mechanics	10
Electrical Eng. Lab.	7
Shopwork	4

*These courses will be divided between Surveying and Drawing in accordance with the season of year in which they come and the number of students registered. The total time allotment to Surveying is equivalent to 12 hours per week for one term.

7TH TERM	Hours per week
Materials of Engineering & Testing Materials Lab.	12
Mechanism of Machines	5
Machine Design	10
Applied Mechanics	10
Refrigeration	2
Engineering Lab.	4
Shopwork	4

8TH TERM	Hours per week
Power Plant Design	5
Industrial Plants, including Heating & Ventilation	16
Mechanics of Engineering	7
Engineering Lab.	10
Gas Motors or Heat Treatment	5
Shopwork	4

ELECTRICAL ENGINEERING

1ST TERM	Hours per week
Mathematics	12
Drawing & Descriptive Geometry	9
Chemistry	12
War Issues and English Composition	9

2D TERM	
Mathematics	12
Chemistry	12
Drawing & Descriptive Geometry	9
War Issues & English Composition	9

3D TERM	
Mathematics	12
Physics	14
Mechanism & Applied Mechanics	12
Mech. Engineering Drawing	9

4TH TERM	
Mathematics	12
Physics	14
Elements of Electrical Eng.	2
Applied Mechanics	12
Surveying, Map-Reading & Topographical Drawing	7

5TH TERM	Hours per week
Elements of Electrical Eng. & D. C. Machinery	15
Elect. Eng. Lab.	8
Heat Engineering	9
Materials of Engineering	6
Shopwork	9

6TH TERM	
Variable & Alternating Currents	12
Elect. Eng. Lab.	12
Heat Engineering	9
Mech. Eng. Lab.	8
Structures of Machine Design	6

7TH TERM	
A. C. Machinery	9
Elect. Eng. Lab.	8
Hydraulics	9
Electrical Transmission (Power & Telephone)	15

8TH TERM	
A. C. Machinery	19
Elect. Eng. Lab.	6
Power Stations (Steam & Hydro-Electric)	13
Motor Applications, Lighting & Storage Batteries	15
Business Law & Accounting	4

COMMITTEE ON EDUCATION AND SPECIAL TRAINING,
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