NAVPERS 16004

Geneva - 24

NAVY V-12 BULLETIN No. 101

Navy V-12 Curricula Schedules Course Descriptions

GENEVA V 427

.N388

NOVEMBER 1, 1943

2. SCHEDULE OF PRESCRIBED V-12 CURRICULA FIRST COLLEGE YEAR (TERMS 1 AND 2)

For the first two terms there are two types of curricula:

1. Curricula 101 (first term) and 201 (second term) are for all types of officer candidates, except pre-medical and pre-dental.

CURRICULA 101 AND 201

| The state of the s | 122 2 10 | | | | | | | | |
|--|---------------------------------|-------------|--|--|--|--|--|--|--|
| | Periods | per week* | | | | | | | |
| Mathematical Analysis I or III, II or IV (M1 or 3, 2 | First term | Second term | | | | | | | |
| or 4)† | 5 (5) | 5 (5) | | | | | | | |
| English I–II (E1–2) | 3 (3) | 3 (3) | | | | | | | |
| Historical Background of Present World War I-II | 0 (0) | | | | | | | | |
| (H1-2) | 2 (2) | 2 (2) | | | | | | | |
| Physics I-II (PH1-2) | 4 (6) | 4 (6) | | | | | | | |
| Engineering Drawing and Descriptive Geometry (D1- | | | | | | | | | |
| 2) | 2 (6) | 2 (6) | | | | | | | |
| Naval Organization I-II (N1-2) | 1 (1) | 1 (1) | | | | | | | |
| | $\overline{17} (23)$ | 17 (23) | | | | | | | |
| Physical Training (PT1-2-3-4-5)‡ | 18 (9½) | 17 (S½) | | | | | | | |
| | $\overline{35} (32\frac{1}{2})$ | 34 (3114) | | | | | | | |
| | | | | | | | | | |

2. Curricula 102 and 202 are for pre-medical and pre-dental candidates only.

CURRICULA 102 AND 202

| | Periods | per week* |
|--|-------------------------------|--|
| | First term | Second term |
| Chemistry I–II (C1–2) Physics I–II (PH1–2) Mathematical Analysis I on III II II III III III III III III | 4 (6) $4 (6)$ | 4 (8) 4 (6) |
| Mathematical Analysis I or III, II or IV (M1 or 3, 2 or 4) Foreign Language I–II, (L1-2) Naval Organization I–II (N1-2) | 5 (5) 3 (3) 1 (1) | 5 (5) 3 (3) 1 (1) |
| Physical Training (PT1-2-3-4-5)‡ | 17 (21) 18 (9½) | $\begin{array}{ccc} 17 & (23 &) \\ 17 & (8\frac{1}{2}) \end{array}$ |
| | $35 (30\frac{1}{2})$ | 34 (311/2) |

^{*} Figures in parentheses indicate contact hours per week in class and laboratory. Figures outside parentheses indicate the number of meetings per week in class and laboratory.

First Term

PT1A Calisthenics, 20 minutes daily. PT4 Muster and Inspection, 15 minutes daily. PT1B-C-D Conditioning Activities, 5 hours weekly PT2B Maintenance Activities, 5 hours weekly. (or) PT3 Intercollegiate Sports. PT5 Military Drill, 1 hour weekly.

Second Term

PT2A Calisthenics, 20 minutes daily. PT4 Muster and Inspection, 15 minutes daily.

PT3 Intercollegiate Sports.

CURRICULA FOR DECK CANDIDATES

D-V(G), D-V(S), C-V(S)

Total of 4 Terms

FIRST COLLEGE YEAR (terms 1 and 2)

Curricula 101 and 201-cf. page 10.

SECOND COLLEGE YEAR (terms 3 and 4)

Curricula 311 and 411.

| | Periods | per week* |
|--|------------|-------------|
| | Third term | Fourth term |
| Elementary Navigation and Nautical Astronomy Ia, IIa (M8, 9) | 3 (3) | 3 (3) |
| and C6) | 4 (6) | 4 (6) |
| Elementary Heat Power (ME2)‡ | 3 (5) | - (-) |
| Electrical Engineering (A)—Elementary (EE2)‡ | | 3 (5) |
| Calculus I, II, and Analytical Mechanics‡ I (M5, 6; A1)_ | 5 (5) | 5 (5) |
| Naval History and Elementary Strategy (N3) | 3 (3) | |
| Psychology I—General (PS1) | | 3 (3) |
| | 18 (22) | 18 (22) |
| Physical Training (PT 2-3-4) | 17 (8½) | 17 (8½) |
| | 35 (30½) | 35 (30½) |

Note.—Upon successful completion of the four terms, the candidate will be assigned to a Reserve Midshipmen's School for a course 4 months in length. Upon successful completion of this course, he will receive a commission as Ensign U. S. N. R.

[†] All engineering candidates shall be expected to be qualified for and to complete satisfactorily Mathematical Analysis III and IV.

^{*}Figures in parentheses indicate contact hours per week in class and laboratory. Figures outside of parentheses indicate the number of meetings per week in class and laboratory.

^{*}Colleges not having engineering departments may substitute comparable courses from their regular offerings in the field of Physics.

CURRICULA FOR PRE-MEDICAL AND PRE-DENTAL CORPS CANDIDATES

MC-V(S), DC-V(S)

Total of 5 Terms

FIRST COLLEGE YEAR (terms 1 and 2)

Curricula 102 and 202-cf. page 10.

SECOND COLLEGE YEAR (terms 3 and 4)

Curricula 321 and 421.

| | Periods per week: | | | | | | | |
|--|-------------------|----|----------------|-------------|-----|-----|-----|-------------|
| | Third term | | | n | Fou | ter | m | |
| Chemistry III—Quantitative Analysis (C3) | 4 | (| 8 |) | | | | |
| Organic Chemistry I (C4) | | | | • | 4 | (| 8 |) |
| Biology 1, 11 (B1, 2) | 4 | (| 8 |) | 4 | (| 8 |) |
| Foreign Language III-IV (L3-4) | 3 | (| 3 |) | 3 | (| 3 | í |
| English 1-11 (E1-2) | 3 | (| 3 |) | 3 | (| 3 |) |
| Historical Background of Present World War I-II (H1-2) | . 2 | (| 2 |) | 2 | (| 2 |) |
| Psychology I—General (PS1) | 2 | (| 2 |) | 2 | (| 2 |) |
| Pilot | 18 | (2 | 26 |) | 18 | (2 | 26 |) |
| Physical Training (PT 2-3-4) | 17 | (| 81 | <u>(</u> 2) | 17 | (| 81 | (2) |
| | 35 | (3 | $4\frac{1}{2}$ | <u>(</u> 2) | 35 | (3 | 341 | <u>(</u> 2) |

THIRD COLLEGE YEAR (term 5 only)

Curriculum 521.

| | Periods per week* Fifth term |
|--|---|
| Biology III (Embryology) or Biology IV (Comparative Anatomy) (B3 or 4) | 5 (9) 4 (8) 3 (3) 3 (3) 3 (3) |
| Physical Training (PT 2-3-4) | 18 (26) 17 (8½) 35 (34½) |

Note.—Upon successful completion of the five terms, the candidate may be selected for medical or dental training, in which case he will be assigned to an appropriate medical or dental school, where he will remain the number of terms necessary to complete that school's requirements for a degree in the shortest possible time.

CURRICULA FOR NAVAL R. O. T. C. CANDIDATES

Total of 7 Terms

FIRST COLLEGE YEAR (terms 1 and 2)

Curricula 101 and 201—cf. page 10.

Note.—V-12 enlistees will be selected for N. R. O. T. C. during the second term. For the remaining five terms there are three types of curricula available as indicated below. Students contemplating pursuing a medical, dental, or theological course of study will not be enrolled in the Naval R. O. T. C.

I. N. R. O. T. C. ENGINEERING CURRICULA

SECOND COLLEGE YEAR (terms 3 and 4)

Curricula 331 and 431.

| | P | Periods per week* | | | | | | | |
|--|----|-------------------|-----|-------------|----|----|-----|----|--|
| | | | m | Fourth terr | | | | | |
| Navigation and Nautical Astronomy I, II (NS4, 5) | 3 | (| 3 |) | 3 | (| 3 |) | |
| Calculus I, II, and Analytical Mechanics (M5, 6; A1) Chemistry Ia–IIa and Engineering Materials (C1a–2a | 5 | (| 5 |) | 5 | (| 5 |) | |
| and C6) | | | 6 | | | | 6 | • | |
| Seamanship (NS 1-2) | 3 | (| 3 |) | 3 | | | - | |
| Communication (NS 3) | | | | | 3 | (| 3 |) | |
| Naval History and Elementary Strategy (N 3) | 3 | (| 3 |) | - | | | _ | |
| | 18 | (: | 20 |) | 18 | (| 20 |) | |
| Physical Training and Drill | 18 | (| 101 | 2) | 18 | (: | 101 | 2) | |
| | 36 | (; | 301 | (2) | 36 | (; | 30 | 2) | |

THIRD COLLEGE YEAR (terms 5 and 6)

Curricula 531 and 631.

| | | Perie | ds pe | r wee | | |
|--|----|--------|---------------|-------|-----|-------------|
| | | th ter | m | Six | m | |
| Naval Administration and Law (NS 6) | 3 | (3 |) | | | |
| Ordnance and Gunnery (NS 8-9) | 3 | (3 |) | 3 | (3 |) |
| Thermodynamics and Heat Power I (ME 4, ME 3) | 5 | (5 |) | 5 | (9 |) |
| Hydraulics and Hydraulic Machinery (CE 5) | | | | 3 | (5 |) |
| Psychology I—General (PS 1) | 3 | (3 |) | | | |
| Strength of Materials Ia (CE 3a) | 3 | (5 |) | | | |
| Naval Machinery (ME 10) | | | | 3 | (5 |) |
| Elective | | | | 3 | (3 |) |
| | 17 | (19 |) | 17 | (25 | 1 |
| Physical Training and Drill | 18 | (10 | $\frac{1}{2}$ | 18 | (10 | $^{1}_{2})$ |
| | 35 | (29 | 1/2) | 35 | (35 | 1/2) |

^{*}Figures in parentheses indicate contact hours per week in class and laboratory. Figures outside parentheses indicate the number of meetings per week in class and laboratory.

^{*}Figures in parentheses indicate contact hours per week in class and laboratory. Figures outside of parentheses indicate the number of meetings per week in class and laboratory.

FOURTH COLLEGE YEAR (term 7 only)

| | Curriculum 731. |
|---|--|
| | Periods per week* Seventh term |
| Tactics and Aviation (NS 7) | 3 (3) |
| Damage Control and Engineering (NS 10) | 3 (3) |
| Refresher (NS 11) | 3 (3) |
| Electives in Engineering | 9 (9-15) |
| About the substitute of personal region of the section of | 18 (18-24) |
| Physical Training and Drill | 18 (10½) |
| | $36 \ (28\frac{1}{2} - 34\frac{1}{2})$ |

II. N. R. O. T. C. GENERAL CURRICULA

SECOND COLLEGE YEAR (terms 3 and 4)

| | Periods pe | er week.* |
|--|------------|------------------------|
| | Third term | Fourth term |
| Navigation and Nautical Astronomy I, II (NS 4, 5) Chemistry Ia-IIa and Engineering Materials (C 1a-2a | 3 (3) | 3 (3) |
| and C6) | 4 (6) | 4 (6) |
| Calculus 1, 11 and Analytical Mechanics I (M 5 6: A1) | 5 (5) | 5 (5) |
| Naval History and Elementary Strategy (N3) | 3 (3) | |
| ceamanship (NS 1-2) | 3 (3) | 3 (3) |
| Communication (NS3) | | 3 (3) |
| DI. | 18 (20) | 18 (20) |
| Physical Training and Drill | 18 (10½) | $18 \ (10\frac{1}{2})$ |

THIRD COLLEGE YEAR (terms 5 and 6)

Curricula 532 and 632.

36 (301/2)

36 (30½)

Curricula 332 and 432.

| | Cuili | CL | 110 | . 00 | 2 411 | | | |
|--|-------|-------------------|-----|------------|-------|-----|-----|------------|
| | | Periods per week: | | | | | | |
| Naval 11 | F | Fifth term | | | Si. | ter | m | |
| Naval Administration and Law (NS6) | . 3 | (| 3 |) | | | | |
| | | (| 3 |) | 3 | (| 3 |) |
| | | (| 5 |) | | | | |
| Psychology I—General (PS1) Foreign Language L.H. (J. 19) | _ | | | | 3 | (| 3 |) |
| Foreign Language I–II (L1–2) | _ 5 | (| 5 |) | 5 | (| 5 |) |
| Elective | _ 3 | (| 3 |) | 6 | (| 6 |) |
| Physical W. | 17 | (| 19 |) | 17 | (1 | 7 |) |
| Physical Training and Drill | _ 18 | (| 10 | (2) | 18 | (1 | 01 | <u>(</u> |
| | 35 | (2 | 29! | <u>(4)</u> | 35 | (2 | 27! | <u>(4)</u> |

^{*}Figures in parentheses indicate contact hours per week in class and laboratory. Figures outside parentheses indicate the number of meetings per week in class and laboratory.

NAVY V-12 CURRICULA AND COURSE DESCRIPTIONS

FOURTH COLLEGE YEAR (term 7 only)

| | S | Curriculum 732. Periods per week* Seventh term |
|---------------------------------------|----|--|
| Tactics and Aviation (NS7) | 3 | (3) |
| Damage Control and Engineering (NS10) | 3 | (3) |
| Refresher (NS11) | 3 | (3) |
| Electives, General | 9 | (9-15) |
| | 18 | (18 -24) |
| Physical Training and Drill | 18 | $(10\frac{1}{2})$ |
| | 36 | (28½-34½) |

III. N. R. O. T. C. BUSINESS ADMINISTRATION CURRICULA SECOND COLLEGE YEAR (terms 3 and 4)

Curricula 333 and 433.

| | P | eric | ods | per w | week* | | | | | | |
|---|------------|------|-----|-------|-------|-----|-----|------|--|--|--|
| MONEY & BANKING | Third term | | | | Fou | rth | ter | rm | | | |
| Navigation and Nautical Astronomy I, II (NS 4, 5) Chemistry Ia-IIa and Engineering Materials (C 1a-2a | 3 | (| 3 |) | 3 | (| 3 |) | | | |
| and C6) | 4 | (| 6 |) | 4 | (| 6 |) | | | |
| Naval History and Elementary Strategy (N3) | 3 | (| 3 |) | | | | | | | |
| Communication (NS3) | | | | | 3 | (| 3 |) | | | |
| Seamanship (NS 1-2) | 3 | (| 3 |) | 3 | (| 3 |) | | | |
| Economics I-II (BA 1-2) | 3 | (| 3 |) | 3 | (| 3 |) | | | |
| Accounting I-II (BA 5-6) | 3 | (| 3 |) | 3 | (| 3 |) | | | |
| V TRANSPORTATION | 19 | (: | 21 |) | 19 | (: | 21 |) | | | |
| Physical Training and Drill | 18 | (| 10 | (2) | 18 | () | 101 | (2) | | | |
| | 37 | (: | 31 | 1/2) | 37 | (: | 311 | 1/2) | | | |

THIRD COLLEGE VEAR (terms 5 and 6)

| THIRD COLLEGE YEAR (terms 5 and 6) | | |
|------------------------------------|-------------------------------|---------------|
| 3(3)3(3) | Curricula 533 and 63 | |
| Accounting 3(3)3(2) | Periods per week* | 5) |
| NAUTICAL ASTRONOMY 3(3) | Fifth term Sixth ter | |
| Naval Administration and Law (NS6) | 3 (3) | |
| Ordnance and Gunnery (NS 8-9) | |) |
| Statistics I (BA7) | -9-(-9- \ | |
| Transportation (BA4) | -9/9 | .) |
| Money and Banking (BA3) | 0 / 0 | -) |
| Psychology I—General (PS1) | 0 / 0 \ | |
| Foodstuffs (BA8) | 0 / 0) | |
| Textiles (BA9) | |) |
| Elective | |) |
| | 18 (18) 18 (18 |) |
| Physical Training and Drill | $18 (10\frac{1}{2})$ $18 (10$ | $\frac{1}{2}$ |
| | 36 (28½) 36 (28 | 1/2) |
| | | |

^{*}Figures in parentheses indicate contact hours per week in class and laboratory. Figures outside parentheses indicate the number of meetings per week in class and laboratory.

FOURTH COLLEGE YEAR (term 7 only)

Curriculum 733.

| | | Periods per week* th term |
|---------------------------------------|---------|------------------------------|
| Tactics and Aviation (NS7) | 3 | (3) |
| Damage Control and Engineering (NS10) | 3 | (3) |
| Refresher (NS11) | 3 | (3) |
| Electives, in Business Administration | 9 (9 | -15) |
| | 18 (18 | -24) |
| Physical Training and Drill | 18 | $(10\frac{1}{2})$ |
| | 36 (28) | $(2-34\frac{1}{2})$ |

Note.—Naval R. O. T. C. students who successfully complete the course, and who so request, may be appointed as ensign in the United States Naval Reserve, or as second lieutenant, United States Marine Corps Reserve, upon the recommendation of the professor of naval science and tactics and approval of the Bureau of Naval Personnel, provided they fulfill the physical requirements and are 19 years or over, but less than 28 years of age. Those who are appointed ensigns will be commissioned in the classification D-V(G) or DE-V(G) for general deck or general deck and engineering service respectively. Graduates who subsequent to their graduation have been on active duty for one year have an opportunity to transfer to the Regular Navy upon recommendation of their commanding officer and successfully passing a suitable professional examination.

CURRICULA FOR GENERAL ENGINEER CANDIDATES E-V(G)

Total of 6 Terms

FIRST COLLEGE YEAR (terms 1 and 2)

Curricula 101 and 201-cf. page 10.

SECOND COLLEGE YEAR (terms 3 and 4)

Curricula 341 and 441.

| | Periods per week* | | | | | | | | | |
|---|-------------------|-----|------|------------|-----|----|----|------|--|--|
| Calculus I. II (M5 e) | | ird | ter | m | For | rm | | | | |
| Calculus I, II (M5, 6) Elementary Navigation and Nautical Astronomy Ia, IIa (M8, 9) | | | 5 |) | | | 3 | | | |
| Chemistry Ia-IIa and Engineering Metaricle (Classes | | (| |) | | | 3 | | | |
| and C6)Naval History and Flamentana Ct. (C1a-2a, | 4 | (| 6 |) | 4 | (| 6 |) | | |
| | 3 | (| 3 |) | | | | | | |
| | | | | | 5 | (| 5 |) | | |
| | 3 | (| 3 |) | | 82 | | - 60 | | |
| Hydraulics and Hydraulic Machinery (CE5) | | | 1000 | | 3 | (| 5 |) | | |
| Di | 18 | (2 | 20 |) | 18 | (: | 22 |) | | |
| Physical Training (PT 2-3-4) | 17 | (| 81 | 2) | 17 | (| 8 | 1/2) | | |
| | 35 | (2 | 281 | <u>(2)</u> | 35 | (: | 30 | 1/2) | | |

^{*}Figures in parentheses indicate contact hours per week in class and laboratory. Figures outside parentheses indicate the number of meetings per week in class and laboratory.

THIRD COLLEGE YEAR (terms 5 and 6)

| a | | | |
|----------|-------|-----|-----|
| Curricul | a 541 | and | 641 |

| | | | | ods p | er we | eek | * | |
|---|----|-----|-----------|---------------|-------|-----|-----|------|
| | Fi | fth | ter | m | Six | rth | ter | m |
| Thermodynamics I (ME4) and Heat Power I (ME3) | 5 | (| 5 |) | 5 | (| 9 |) |
| Electrical Engineering I, II (EE10, 11) | 3 | (| 5 |) | 3 | (| 5 |) |
| Strength of Materials Ia (CE3a) | 3 | (| 5 |) | | | | |
| Kinematics and Design I, II (ME5, 6) | 3 | (| $\bar{5}$ |) | 3 | (| 5 |) |
| Naval Machinery (ME10) | | | | | 3 | (| 5 |) |
| Radio Engineering I-II (EE16-17) | 2 | (| 4 |) | 2 | (| 4 |) |
| Economics I–II, Principles of (BA1–2) | 2 | (| 2 |) | 2 | (| 2 |) |
| ·- | 18 | (: | 26 |) | 18 | (| 30 |) |
| Physical Training (PT 2-3-4) | 17 | (| 8 | $\frac{1}{2}$ | 17 | (| 8 | 1/2) |
| - | 35 | (; | 34 | 1/2) | 35 | (| 38 | 1/2) |

Note.—Upon successful completion of the six terms the candidate will be assigned to a Reserve Midshipmen's School for a course 4 months in length. Upon successful completion of this course he will receive a commission as Ensign U. S. N. R.

CURRICULA FOR CIVIL ENGINEER CORPS CANDIDATES CEC-V(S)

Total of 8 Terms

FIRST COLLEGE YEAR (terms 1 and 2)

Curricula 101 and 201—cf. page 10.

SECOND COLLEGE YEAR (terms 3 and 4)

Curricula 351 and 451.

| | | I | Perio | ods ; | per week* | | | | | | |
|---|----|------|-------|------------|-----------|-------|----------------|---|--|--|--|
| | Th | ird | ter | m | Fou | rth t | tern | ı | | | |
| Calculus I, II (M5, 6) | 4 | (| 4 |) | 4 | (| 4 |) | | | |
| and C6) Analytical Mechanics I, II (A1, 2) | | 100. | 6 | (0) | | () | | | | | |
| Surveying—Plane and Geodetic (CE1, 2) Naval History and Elementary Strategy (N3) | 3 | . (| 3 | 1 | 5 | (1 | 1 |) | | | |
| Psychology I—General (PS1) | 17 | | 3 | - | 18 | (2) | 6 | _ | | | |
| Physical Training (PT 2-3-4) | | | | (2) — | | | | 1 | | | |
| | 34 | (; | 313 | (2) | 35 | (3 | $4\frac{1}{2}$ |) | | | |

^{*}Figures in parentheses indicate contact hours per week in class and laboratory. Figures outside parentheses indicate the number of meetings per week in class and laboratory.

Curricula 551 and 651.

| | | I | eri | ods | per w | eek | | |
|--|----|------|-----|------------|-------|-----|-----|---------------|
| | F | ifth | ter | m | Si. | xth | ter | m |
| Thermodynamics Ia (ME4a) and Heat Power Ia (ME3a)_ | 3 | (| 3 |) | 3 | (| 5 |) |
| Electrical Engineering I, II (EE10, 11) | 3 | (| 5 |) | 3 | (| 5 |) |
| Strength of Materials I (CE3) | 3 | (| 3 |) | | • | | • |
| Materials Laboratory I (CE4) | | , | | 8 | 3 | (| 7 |) |
| Fluid Mechanics (CE6) | | | | | 3 | (| 5 |) |
| Curves and Earthwork (CE10) | 3 | (| 5 |) | | • | | , |
| Structures I, II, III (CE7, 8, 9) | | (| | 23 | 6 | (| 10 |) |
| The state of the s | 17 | (2 | 23 |) | 18 | (; | 32 |) |
| Physical Training (PT 2-3-4) | 17 | (| 81 | (2) | 17 | (| 8 | 1/2) |
| - Control Wall Control | 34 | (3 | 313 | <u>(2)</u> | 35 | (4 | 40 | <u></u> ½) |

FOURTH COLLEGE YEAR (terms 7 and 8)

Curricula 751 and 851.

| | | Pe | eric | ods i | per w | eel: | * | |
|---|-----|------|------|------------|-------|------|-----|----|
| | Sev | enth | tei | rm | Eigi | hth | ter | m |
| Structures IV, V (CE11, 12) | 5 | (| 9 |) | 5 | (| 9 |) |
| Sanitary Engineering (CE13) | | | | | 3 | (| 5 |) |
| Water Supply (CE14) | 3 | (| 5 |) | | • | | - |
| Contracts and Specifications (GE5) | | | | / | 2 | (| 2 |) |
| Soil Mechanics (CE15) | 3 | (. | 5 |) | _ | ` | _ | 6 |
| Technical Reports (GE4) | | (| | 17.0 | | | | |
| Airport Design (CE16) | - | ` | | , | 3 | (| 5 |) |
| Industrial Organization (GE3) | | | | | | | 3 | |
| Highway Engineering (CE17) | 4 | ((| 3 |) | o | (| o | 2 |
| Economics of Engineering I, II (GE1, 2) | | (: | |) | 2 | (| 2 |) |
| | 19 | (29 | 9 |) | 18 | (2 | 26 |) |
| Physical Training (PT 2-3-4) | 17 | (8 | 31/ | (2) | 17 | (| 81 | 2) |
| - | 90 | (9) | - 1 | _ | | /0 | | |
| | 36 | (3) | 1 | $_2)$ | 35 | (3 | 44 | 2) |

Note.—Upon successful completion of the eight terms the candidate will be assigned to a Reserve Midshipmen's School for a course 4 months in length. Upon successful completion of this course he will receive a commission as Ensign U. S. N. R.

NAVY V-12 CURRICULA AND COURSE DESCRIPTIONS

CURRICULA FOR CONSTRUCTION CORPS CANDIDATES

CC-V(S)

Naval Architecture and Marine Engineering Total of 8 Terms

FIRST COLLEGE YEAR (terms 1 and 2)

Curricula 101 and 201-cf. page 10.

SECOND COLLEGE YEAR (terms 3 and 4)

Curricula 352 and 452.

| | Periods per | week* |
|--|-------------|-------------|
| | Third term | Fourth term |
| Calculus I, II, III (M5-6-7)Chemistry Ia-IIa, and Engineering Materials (C1a-2a, | 4 (4) | 6 (6) |
| and C6) | 4 (6) | 4 (6) |
| Analytical Mechanics Ia, II (A1a-2) | 3 (3) | 3 (3) |
| Ship Construction (NA1) | 3 (3) | 3 (5) |
| Nontechnical elective† | | 2 (2) |
| - Company | 17 (19) | 18 (22) |
| Physical Training (PT2-3-4) | 17 (8½) | 17 (8½) |
| - | 34 (27½) | 35 (30½) |

THIRD COLLEGE YEAR (terms 5 and 6)

Curricula 552 and 652.

| | | P_{ϵ} | ric | ds p | er week | * | |
|--|------|------------------|-----|------------|---------|-------|-----|
| | Fift | Fifth term 5 (5) | | | | th te | rm |
| Thermodynamics I (ME4) | 5 | (| 5 |) | 3 | (| 5) |
| Strength of Materials I (CE3) | 3 | (| 3 |) | | ň | |
| Fluid Mechanics (CE6) | 2 | (| 4 |) | 3 | (| 5) |
| Mechanical Processes Ia, Ib (ME9a, 9b) | 2 | (| 4 |) | 2 | (- | 4) |
| Kinematics (ME1) | 2 | (| 4 |) | | | |
| Machine Design (ME7) | | | | | 3 | (| 5) |
| Technical Reports (GE4) | | | | | 2 | (| 2) |
| Form Calculations (NA2) | 5 | (| 9 |) | | | |
| Ship Structural Design (NA3) | | | | | 6 | (1 | 2) |
| _ | 19 | (2 | 9 |) | 19 | (3 | 3) |
| Physical Training (PT2-3-4) | 17 | (| 81/ | (2) | 17 | (| 8½) |
| - | 36 | (3 | 71/ | <u>(2)</u> | 36 | (4 | 1½) |

^{*}Figures in parentheses indicate contact hours per week in class and laboratory. Figures outside of parentheses indicate the number of meetings per week in class and laboratory.

^{*}Figures in parentheses indicate contact hours per week in class and laboratory. Figures outside of parentheses indicate the number of meetings per week in class and laboratory.

[†]This elective should be chosen from the fields of language, literature, social science, fine arts, or other fields quite apart from those of engineering, science, and mathematics. A 3-hour course is allowable at the discretion of the adviser.

FOURTH COLLEGE YEAR (terms 7 and 8)

Curricula 752 and 852.

| | Our I | | iiu | , 0 - | CLII | | - | • |
|---------------------------------------|-------|------|--------|------------|-------|-------|-------|---|
| | | I | erie | ods per | week: | | | |
| | Seve | nth | ter | m | Eigh | th te | rm | |
| Ship Design I (NA4) | . 3 | (| 3 |) | | | | |
| Resistance and Propulsion (NA5) | _ 5 | (| 6 |) | | | | |
| Marine Engineering I, II (NA6, 7) | _ 5 | (| 9 |) | 7 | (| 9 |) |
| Ship Design II (NAS) | - | 1090 | | | 4 | (1: | 2 |) |
| Economics I-II, Principles of (BA1-2) | _ 3 | (| 3 |) | 3 | (: | 3 |) |
| Metallurgy (ME17) | _ | | | | 3 | (: | 5 |) |
| Industrial Organization (GE3) | _ 3 | (| 3 |) | | o. | | |
| Contracts and Specifications (GE5) | = | | | | 2 | (: | 2 |) |
| | 19 | (2 | 24 |) | 19 | (3. | 1 |) |
| Physical Training (PT2-3-4) | _ 17 | (| 81 | (2) | 17 | (8 | 31/2) | 1 |
| | 36 | (3 | 321/ | | 36 | (39 | 9½) | |
| | | | | | | | | |

Note.—Upon successful completion of the eight terms the candidate will be assigned to a Reserve Midshipmen's School for a course 4 months in length. Upon successful completion of this course, he will receive a commission as Ensign U. S. N. R.

CURRICULA FOR ENGINEER SPECIALIST CANDIDATES

E-V(S), A-V(S), O-V(S)

Mechanical—Steam & Internal Combustion Engines
Total of 8 Terms

FIRST COLLEGE YEAR (terms 1 and 2)

Curricula 101 and 201-cf. page 10.

SECOND COLLEGE YEAR (terms 3 and 4)

Curricula (Steam) 353 and 453; Curricula (I. C. E.) 354 and 454.‡

| (Section) 555 and 455, Curricula (1. | | | | | er week | | | • |
|--|-----|----|-----|------------|---------|---|------|-----|
| Col. 1 x == | Thi | | | | Four | | teri | m |
| Calculus I, II (M5, 6) | 4 | (| 4 |) | 4 | (| 4 |) |
| (C1a-2a, | | Ò | | ž. | | | | |
| Analytical Mask | 4 | (| 6 |) | | | 6 | |
| Analytical Mechanics I, II (A1-2) | | | | | 5 | (| 5 |) |
| Decidences 1-11, Principles of (BA1-2) | 3 | (| 3 |) | 3 | (| 3 |) |
| raval History and Elementary Strategy (N2) | | | 3 | | | | | |
| Kinematics (ME1) | | | | | 2 | (| 4 |) |
| Psychology I—General (PS1) | 3 | (| 3 |) | | | | |
| The state of the s | 17 | (1 | 9 |) | 18 | (| 22 |) |
| Physical Training (PT 2-3-4) | 17 | (| 81 | ½) | 17 | (| 81 | 2) |
| The state of the s | 34 | (2 | 273 | ·2) | 35 | (| 30 | (2) |

^{*}Figures in parentheses indicate contact hours per week in class and laboratory. Figures outside of parentheses indicate the number of meetings per week in class and laboratory.

NAVY V-12 CURRICULA AND COURSE DESCRIPTIONS

THIRD COLLEGE YEAR (terms 5 and 6)

Curricula (Steam) 553 and 653; Curricula (I. C. E.) 554 and 654.‡

| | Periods per week* | | | | |
|---|-----------------------|------------|--|--|--|
| | Fifth term | Sixth term | | | |
| Thermodynamics I (ME4) and Heat Power I (ME3) | 5 (5) | 5 (9) | | | |
| Electrical Engineering I, II (EE10, 11) | 4 (6) | 4 (6) | | | |
| Strength of Materials I (CE3) | 3 (3) | | | | |
| Materials Laboratory I (CE4) | | 3 (7) | | | |
| Machine Design (ME7) | 3 (5) | | | | |
| Fluid Mechanics (CE6) | | 3 (5) | | | |
| Mechanical Processes (ME9) | 3 (3) | | | | |
| Mechanics of Machinery (ME8) | | 3 (5) | | | |
| _ | 18 (22) | 18 (32) | | | |
| Physical Training (PT2-3-4) | 17 ($8\frac{1}{2}$) | 17 (8½) | | | |
| _ | 35 (30½) | 35 (40½) | | | |

FOURTH COLLEGE YEAR (terms 7 and 8)

Curricula (Steam) 753 and 853; Curricula (I. C. E.) 754 and 854.‡

| | Periods per week* | | | | | | | |
|--|-------------------|-----|-----|------------|--------|-------|-------------------|--|
| | Sere. | nth | ter | m | Eighti | i ter | m | |
| Heat Power II, III (ME11, 12) | 5 | (| 9 |) | 5 | (| 9) | |
| Naval Machinery (ME10) | 2 | (| 4 |) | | | | |
| Metallurgy (ME17) | 3 | (| 5 |) | | | | |
| Industrial Organization (GE3) | 3 | (| 3 |) | | | | |
| Aerodynamics (ME14) | | | | | 3 | (: | 3) | |
| Refrigeration (ME13) | | | | | 3 | () | 5) | |
| Mechanical Design I, II (ME15, 16) | 3 | (| 5 |) | 3 | (| 5) | |
| Electron Tubes and Circuits Ia-IIa (EE5a-6a) | 2 | | 4 | | 2 | (- | 4) | |
| Contracts and Specifications (GE5) | | | | | 2 | (: | 2) | |
| - | 18 | (: | 30 |) | 18 | (2 | 8) | |
| Physical Training (PT2-3-4) | 17 | (| 81 | (2) | 17 | (8 | $8^{\frac{1}{2}}$ | |
| · · · · · · · · · · · · · · · · · · · | 35 | (: | 381 | <u>(2)</u> | 35 | (36 | $6\frac{1}{2}$ | |
| | | | | | | | | |

Note.—Upon successful completion of the eight terms the candidate will be assigned to a Reserve Midshipmen's School for a course 4 months in length. Upon successful completion of this course, he will receive a commission as Ensign U. S. N. R.

[‡]Distinction between these curricula is inserted only for purposes of distributing students. Distribution will be based on student interests.

^{*}Figures !n parentheses indicate contact hours per week in class and laboratory. Figures outside of parentheses indicate the number of meetings per week in class and laboratory.

¹Distinction between these curricula is inserted only for purposes of distributing students. Distribution will be based on student interests.

CURRICULA FOR ENGINEER SPECIALIST CANDIDATES

E-V(S), A-V(S), O-V(S)

Electrical—Power

Total of 8 Terms

FIRST COLLEGE YEAR (terms 1 and 2)

Curricula 101 and 201-cf. page 10.

SECOND COLLEGE YEAR (terms 3 and 4)

Curricula 355 and 455.

| | | Periods per week* | | | | | | |
|--|----|-------------------|------|-------------|----|-----|------|------------|
| | | Thi | rd t | erm | Fo | urt | h te | rm |
| Calculus I, II, III (M5, 6, 7) | 4 | 1 (| 4 |) | 6 | (| 6 |) |
| Chemistry Ia–IIa, and Engineering Materials (C1a–2a, C6) | 4 | (| 6 |) | 4 | (| 6 |) |
| Analytical Mechanics I, II (A1-2) | | | | | 5 | (| 5 |) |
| Economics I-II, Principles of (BA1-2) | 3 | (| 3 |) | 3 | (| 3 |) |
| Naval History and Elementary Strategy (N3) | 3 | (| 3 |) | | | | |
| Electricity and Magnetism (EE1) | 3 | (| 5 |) | | | | |
| | 17 | (: | 21 |) | 18 | (: | 20 |) |
| Physical Training (PT 2-3-4) | 17 | (| 81/ | <u>(</u> 2) | 17 | (| 81 | (2) |
| | 34 | (2 | 291 | | 35 | (: | 281 | <u>(2)</u> |

THIRD COLLEGE YEAR (terms 5 and 6)

Curricula 555 and 655.

| | Periods per week* | | | | | | | |
|---|-------------------|------------|-----|-------------|----|-----|------|------------|
| | I | Fifth term | | | S | ixt | h te | rm. |
| Electric and Magnetic Circuits I-II (EE3-4) | 5 | (| 9 |) | 5 | (| 9 |) |
| D. C. Machinery and Storage Batteries I (EE12) | | • | | 6 | 5 | (| 9 |) |
| Thermodynamics Ia (ME4a) and Heat Power Ia (ME3a) | 3 | (| 3 | ĭ | 3 | (| 5 | , |
| Strength of Materials I (CE3) | | 100 | 3 | 5.5 | 0 | | | 1 |
| Materials Laboratory Ia (CE4a) | 0 | (| J | , | 2 | (| 4 | 1 |
| Kinematics (ME1) | 2 | (| 4 |) | _ | 3 | • | - 6 |
| Fluid Mechanics (CE6) | ~ | ' | - | , | 3 | (| 5 | ï |
| Electrical Measurements (EE9) | 5 | (| 9 |) | Ü | , | Ü | , |
| | 18 | (: | 28 |) | 18 | | (3 | 2) |
| Physical Training (PT 2-3-4) | 17 | (| 81 | (2) | 17 | (| 8, | ½) |
| | 35 | (: | 361 | <u>(</u> 2) | 35 | (4 | 101 | <u>(2)</u> |

^{*}Figures in parentheses indicate contact hours per week in class and laboratory. Figures outside of parentheses indicate the number of meetings per week in class and laboratory.

NAVY V-12 CURRICULA AND COURSE DESCRIPTIONS

FOURTH COLLEGE YEAR (terms 7 and 8)

Curricula 755 and 855.

| | Periods p | er week* |
|--|--------------|-----------------|
| | Seventh term | Eighth term |
| Elective | | 3 (3) |
| Electron Tubes and Circuits I-II (EE5-6) | | 4 (6) |
| Alternating-Current Machinery I (EE13) | 5 (7) | |
| Electrical Design I (EE14) | | 3 (7) |
| Electrical Engineering Laboratory (EE15) | | 3 (5) |
| Naval Machinery (ME10) | | 2(4) |
| Contracts and Specifications (GE5) | 2 (2) | |
| Psychology I—General (PS1) | 3 (3) | |
| Industrial Organization (GE3) | | 3 (3) |
| Mechanical Processes (ME9) | 3 (3) | |
| Machine Design (ME7) | 3 (5) | |
| | 18 (24) | 18 (28) |
| Physical Training (PT 2-3-4) | 17 (8½) | 17 (8½) |
| _ | 35 (32½) | 35 (36½) |

Note.—Upon successful completion of the eight terms the candidate will be assigned to a Reserve Midshipmen's School for a course 4 months in length. Upon successful completion of this course, he will receive a commission as Ensign U. S. N. R.

CURRICULA FOR ENGINEER SPECIALIST CANDIDATES

E-V(S), A-V(S), O-V(S)

Electrical—Communication and Pre-Radar

Total of 8 Terms

FIRST COLLEGE YEAR (terms 1 and 2)

Curricula 101 and 201-cf. page 10.

SECOND COLLEGE YEAR (terms 3 and 4)

Curricula 356 and 456; same as Curricula 355 and 455—cf. page 22.

^{*}Figures in parentheses indicate contact hours per week ln class and laboratory. Figures outside of parentheses indicate the number of meetings per week in class and laboratory.

Curricula 556 and 656.

| | | | | | | | - | |
|--|----|------|-----|-------|-----------|-----|-------|-----|
| | | | Per | riods | e per wee | k* | | |
| | F | iftl | ter | m | S | ixi | th te | rm |
| Electric and Magnetic Circuits I-II (EE3-4) | 5 | (| 9 |) | 5 | (| 9 |) |
| Thermodynamics Ia (ME4a) and Heat Power Ia | | 88 | | | | | | |
| (ME3a) | 3 | (| 3 |) | 3 | (| 5 |) |
| Strength of Materials I (CE3) | 3 | (| 3 |) | | | | |
| Materials Laboratory Ia (CE4a) | | | | | 2 | (| 4 |) |
| Electron Tubes and Circuits Ib-IIb (EE5b-6b) | 2 | (| 4 |) | 3 | (| 5 | 1 |
| Electrical Measurements (EE9) | 5 | (| 9 |) | • | | | |
| D. C. Machinery and Storage Batteries Ia (EE12a) | | | | | 3 | (| 5 |) |
| Kinematics (ME1) | | | | | 2 | (| 4 |) |
| - | | - | | - | - | | | |
| | 18 | (: | 28 |) | 18 | (| 32 |) |
| Physical Training (PT 2-3-4) | 17 | (| 8 | (2) | 17 | (| 8 | 14) |
| | 35 | (: | 361 | 6) | 35 | (| 40 | 14) |

FOURTH COLLEGE YEAR (terms 7 and 8)

Curricula 756 and 856.

| | Periods p | | | per week* | | | | | | |
|--|-------------|------|-----|-----------|------------|-----|-----|------|------|--|
| | $S\epsilon$ | ver | ıth | te | rm | Ei | ght | h te | rm | |
| Elective | | | | | | 3 | (| 3 |) | |
| Navar Machinery (ME10) | | | | | | | - | 4 | | |
| Michael Germannia Current Machinery Ia (EE13a) | 4 | (| 6 | |) | 170 | | | | |
| Frequency Circuits I-II (EE7-8) | | - 23 | 7 | | í | 5 | (| 7 |) | |
| Design Ia (EE14a) | | | 100 | | <i>y</i> : | | | 4 | | |
| Engineering Laboratory (EE15) | | | | | | | | 5 | | |
| General (PS1) | 3 | (| 3 | |) | | ` | | | |
| district Organization (CFE3) | | 1 | | | , | 3 | (| 3 |) | |
| Design (ME7) | 3 | (| 5 | |) | | , | | - / | |
| Fluid Mechanics (CE6) | | 1.5 | 5 | |) | | | | | |
| | 18 | (: | 26 | |) | 18 | (| 26 |) | |
| Physical Training (PT 2-3-4) | 17 | (| 8 | 1/2 |) | | | 81 | | |
| | 35 | (; | 34 | 1/2 |) | 35 | (| 34! | 1/2) | |

Note.—Upon successful completion of the eight terms the candidate will be assigned to a Reserve Midshipmen's School for a course 4 months in length. Upon successful completion of this course, he will receive a commission as Ensign U. S. N. R.

CURRICULA FOR ENGINEER SPECIALIST CANDIDATES

E-V(S), A-V(S), O-V(S)

Aeronautical—Engine Total of 8 Terms

FIRST COLLEGE YEAR (terms 1 and 2)

Curricula 101 and 201—cf. page 10.

SECOND COLLEGE YEAR (terms 3 and 4)

Curricula 357 and 457; same as Curricula 353 and 453—cf. page 20.

THIRD COLLEGE YEAR (terms 5 and 6)

Curricula 557 and 657.

| | Perioas j | per week* | | | | | |
|--|------------|------------|--|--|--|--|--|
| America I (AF1) | Fifth term | Sixth term | | | | | |
| Aerodynamics I (AE1) | 3 (3) | | | | | | |
| Thermodynamics la (ME4a) | 3 (3) | | | | | | |
| Electrical Engineering I, II (EE10-11) | 3 (5) | 3 (5) | | | | | |
| Strength of Materials I (CE3) | 3 (3) | | | | | | |
| Materials Laboratory Ia (CE4a) | 2 (4) | | | | | | |
| Calculus III—Differential Equations (M7) | 3 (3) | | | | | | |
| Heat Power I (ME3) | | 5 (9) | | | | | |
| Vibration and Dynamic Balance (AE13) | | 2 (2) | | | | | |
| Fluid Mechanics (CE6) | | 3 (5) | | | | | |
| Structure Ia-Structural Analysis (CE7a) | | 3 (5) | | | | | |
| Aircraft Materials and Processes (AE6) | | 3 (3) | | | | | |
| · · · · · · · · · · · · · · · · · · · | 17 (21) | 19 (29) | | | | | |
| Physical Training (PT 2-3-4) | 17 (8½) | 17 (8½) | | | | | |
| 30 W. | 34 (29½) | 36 (371/6) | | | | | |

FOURTH COLLEGE YEAR (terms 7 and 8)

Curricula 757 and 857.

| | Period | ods per week* | | | | |
|---|--|---|--|--|--|--|
| Airplane Structures I (AE4) Mechanism and Machine Design (AE15) Metal Processing (AE21) Heat Power II—Internal-Combustion Engines (ME11) Aircraft Power Plants (AE16) | Seventh 'erm 3 (3) 4 (8) 3 (7) 5 (9) 3 (3) | Eighth term | | | | |
| Aircraft Fower Takes Aircraft Engine Design (AE17) Aircraft Engine Laboratory (AE19) Utilization of Fuels and Lubricants (AE18) Contracts and Specifications (GE5) Propellers (AE9) Metallurgy (ME17) | | 3 (7) 3 (7) 3 (5) 2 (2) 3 (3) 3 (5) | | | | |
| Physical Training (PT 2-3-4) | 18 (30) 17 (8½) 35 (38½) | $ \begin{array}{c c} 17 & (29) \\ 17 & (81/2) \\ \hline 34 & (371/2) \end{array} $ | | | | |

Note.—Upon successful completion of the eight terms the candidate will be assigned to a Reserve Midshipmen's School for a course 4 months in length. Upon successful completion of this course, he will receive a commission as Ensign U. S. N. R.

^{*}Figures in parentheses indicate contact hours per week in class and laboratory. Figures outside of parentheses indicate the number of meetings per week in class and laboratory.

^{*}Figures in parentheses indicate contact hours per week in class and laboratory. Figures outside of parentheses indicate the number of meetings per week in class and laboratory.

CURRICULA FOR ENGINEER SPECIALIST CANDIDATES

E-V(S), A-V(S), O-V(S)

Aeronautical—Structures
Total of 8 Terms

FIRST COLLEGE YEAR (terms 1 and 2)

Curricula 101 and 201-cf. page 10.

SECOND COLLEGE YEAR (terms 3 and 4)

Curricula 358 and 458; same as Curricula 353 and 453—cf. page 20.

THIRD COLLEGE YEAR (terms 5 and 6)

| Curricula | 558 | and | 658. |
|-----------|-----|-----|------|
|-----------|-----|-----|------|

| | Ourredia ooo and | | | |
|--|------------------|------------------|--|--|
| | Periods | per week* | | |
| | Fifth term | Sixth term | | |
| Aerodynamics I, II (AE1-2) | 3 (3) | 3 (3) | | |
| Heat Power 1a (ME3a) | _ 3 (5) | 20 20 100 | | |
| Electrical Engineering I, II (EE10-11) | 3 (5) | 3 (5) | | |
| Strength of Materials I (CE3) | _ 3 (3) | E X 8 | | |
| Materials Laboratory Ia (CE4a) | 2 (4) | | | |
| Calculus III—Differential Equations (M7) | 3 (3) | | | |
| Fluid Mechanics (CE6) | _ | 3 (5) | | |
| Wind Tunnel (AE20) | 10 20 | 2 (6) | | |
| Structures Ia—Structural Analysis (CE7a) | _ | 3 (5) | | |
| Aircraft Materials and Processes (AE6) | | 3 (3) | | |
| | 17 (23) | 17 (27) | | |
| Physical Training (PT 2-3-4) | _ 17 (8½) | $17 (8^{1}_{2})$ | | |
| A SOCIETY OF THE PARTY OF THE P | 34 (31½) | 34 (3512) | | |

FOURTH COLLEGE YEAR (terms 7 and 8)

Curricula 758 and 858.

| | Periods | per week* |
|--|--------------|-------------|
| | Seventh term | Eighth term |
| Airplane Structures I, II (AE4-5) | 3 (3) | 3 (3) |
| Airplane Design Practice I, II (AE7-8) | 3 (7) | 3 (7) |
| Aircraft Power Plants (AE16) | 3 (3) | |
| Propellers (AE9) | 3 (3) | |
| Applied Aerodynamics (AE11) | 3 (3) | |
| Airplane Static Test (AE14) | 2 (4) | |
| Aircraft Components (AE10) | | 2 (2) |
| Aerodynamics III (AE3) | | 3 (3) |
| Elementary Vibration & Flutter (AE12) | | 2 (2) |
| Contracts and Specifications (GE5) | | 2 (2) |
| Industrial Organization (GE3) | | 3 (3) |
| | 17 (23) | 18 (22) |
| Physical Training (PT 2-3-4) | 17 (8½) | 17 (8½) |
| | 34 (31½) | 35 (30½) |

Note.—Upon successful completion of the eight terms the candidate will be assigned to a Reserve Midshipmen's School for a course 4 months in length. Upon successful completion of this course, he will receive a commission as Ensign U. S. N. R.

CURRICULA FOR ENGINEER SPECIALIST CANDIDATES

E-V(S), A-V(S), O-V(S)

Physics Major

Total of 8 Terms

FIRST COLLEGE YEAR (terms 1 and 2)

Curricula 101 and 201-cf. page 10.

SECOND COLLEGE YEAR (terms 3 and 4)

Curricula 359 and 459.

| | Periods per week* | | | | | | | | | |
|--|-------------------|---|----|------|-------------|---|----|-----|--|--|
| Coloulus I II, and III (M5-6-7) | | | | m | Fourth term | | | | | |
| Calculus I, II, and III (M5-6-7) Chemistry Ia-IIa, and Engineering Materials (C1a-2a, | 4 | (| 4 |) | 6 | (| 6 |) | | |
| C6) | 4 | (| 6 |) | 4 | (| 6 | 3 | | |
| Mechanics and Heat (PH3-4) | 3 | (| 3 |) | 4 | (| 6 |) | | |
| Electrical Measurements (PH5-6) | 4 | (| 6 |) | 1 | (| 3 |) | | |
| Electricity and Magnetism (PH7) Naval History and Elementary Strategy (N3) | 3 | (| 3 |) | 3 | (| 3 |) | | |
| 100 | 18 | (| 22 |) | 18 | (| 24 |) | | |
| Physical Training (PT2-3-4) | 17 | (| 8 | 1/2) | 17 | (| 8 | (2) | | |
| | 35 | (| 30 | ·2) | 35 | (| 32 | (2) | | |
| | | | | | | | | | | |

THIRD COLLEGE YEAR (terms 5 and 6)

Curricula 559 and 659.

| | Periods per | week* |
|---|---------------------|------------|
| | Fifth term | Sixth term |
| Electricity and Magnetism (PHS-9) | 5 (9) | 1 (3) |
| Wave Motion and Sound (PH10) | 4 (4) | 5 (9) |
| Physics (PH12) | 5-2-7 (OR) (OR) (W) | 3 (3) |
| Machanics (CE6) | 3 (5) | 2 2 2 2 |
| Aerodynamics (ME14) Elementary Heat Power (ME2) | 3 (5) | 3 (3) |
| Engineering (A) Elementary (EE2) | | 3 (5) |
| Navigation and Nautical Astronomy I, II (M8-9) | 3 (3) | 3 (3) |
| | 18 (26) | 18 (26) |
| Physical Training (PT2-3-4) | 17 (8½) | 17 (8½) |
| | 35 (34½) | 35 (34½) |

^{*}Figures in parentheses indicate contact hours per week in class and laboratory. Figures outside of parentheses indicate the number of meetings per week in class and laboratory.

^{*}Figures in parentheses indicate contact hours per week in class and laboratory. Figures outside of parentheses indicate the number of meetings per week in class and laboratory.

FOURTH COLLEGE YEAR (terms 7 and 8)

Curricula 759 and 859.

| | Periods pe | er week* |
|---|--------------|--------------|
| | Seventh term | Eighth term |
| Optics (PH13) | 5 (9) | |
| Electronics (PH14-15) | 2 (4) | 5 (9) |
| Electron Tubes and Circuits I-II (EE5-6) | 2 (4) | 4 (6) |
| Physical Chemistry (C7) | 3 (3) | 3 (3) |
| Psychology I—General (PS1) | 3 (3) | 25 \$ 125 \$ |
| Special Topics with Applications to Navy Operations, or | | |
| Electives (PH16-17) | 3 (3) | 6 (10) |
| AND THE PERSON NOT SERVED. | 18 (26) | 18 (28) |
| Physical Training (PT2-3-4) | 17 (8½) | 17 (8½) |
| | 35 (34½) | 35 (3614) |

Note.—Upon successful completion of the eight terms the candidate will be assigned to a Reserve Midshipmen's School for a course 4 months in length. Upon successful completion of this course, he will receive a commission as Ensign U. S. N. R.

CURRICULA FOR AVIATION CANDIDATES

A-V(N)

Total of 2 Terms

FIRST COLLEGE YEAR (terms 1 and 2)

Curricula 101 and 201-cf. page 10.

Note: Upon successful completion of the first two terms, and approval by N. A. C. S. B., aviation candidates will be transferred to V-5 and will proceed directly to aviation training.

NAVY V-12 CURRICULA AND COURSE DESCRIPTIONS

CURRICULA FOR AEROLOGY SPECIALIST CANDIDATES

A-V(S)

Total of 8 Terms

FIRST COLLEGE YEAR (terms 1 and 2)

Curricula 101 and 201-cf. page 10.

SECOND COLLEGE YEAR (terms 3 and 4)

Curricula 371 and 471; same as Curricula 353 and 453—cf. page 20.

THIRD COLLEGE YEAR (terms 5 and 6)

Curricula 571 and 671.

| | | P | ϵrio | ds | per week* | | |
|---|----|------|----------------|------------|-----------|------|-----|
| | | th t | tern | n | Sixtl | terr | m |
| Thermodynamics of the Atmosphere (AY1) Physics of the Atmosphere (AY2) | 3 | (| 3 |) | 0 | , , | ٥. |
| cut at alam I (AV19) | | | | | 3 | (; | 3) |
| Climatology I (AY12) | | | | | 2 | (5 | 2) |
| Differential Equations (M7) | 3 | (| 3 |) | | | |
| Fluid Mechanics (CE6) | 3 | (| 5 |) | | | |
| Synoptic Meteorology I, II (AY4-5) | 3 | (| 3 | í | 3 | (: | 3) |
| Meteorological Laboratory I, II (AY8-9) | 3 | (| 9 |) | 10 | (20 | 0) |
| Descriptive Meteorology (AY3) | 3 | (| 3 |) | | | |
| Dynamic Meteorology I (AY14) | | | | | 3 | (; | 3) |
| | 18 | (: | 26 |) | 21 | (3: | 1) |
| Physical Training (PT2-3-4) | 17 | | | | 17 | | 8½) |
| - | 35 | (: | 341 | (2) | 38 | (39 | 9½) |

FOURTH COLLEGE YEAR (terms 7 and 8)

Curricula 771 and 871.

| | Periods pe | er week* |
|--|--------------|-------------|
| | Seventh term | Eighth term |
| Climatology II (AY13) | 2(2) | |
| : Meteorology II (A 1 13) | 3 (3) | |
| | 3 (3) | |
| :- Motoorology 111, 17 (A 10-1) | 3 (3) | 2 (2) |
| alogical Institutions and Observations (A 117) | | 4 (6) |
| 1-cicol Seminar (A 1 10) | | 2(2) |
| Meteorological Laboratory III, IV (AY10-11) | 10 (20) | 10 (20) |
| | 21 (31) | 18 (30) |
| Physical Training (PT2-3-4) | 17 (8½) | 17 (8½) |
| | 38 (39½) | 35 (38½) |

Note.—Upon successful completion of the eight terms the candidate will be assigned to a Reserve Midshipmen's School for a course 4 months in length. Upon successful completion of this course, he will receive a commission as Ensign U. S. N. R.

^{*}Figures in parentheses indicate contact hours per week in class and laboratory. Figures outside of parentheses indicate the number of meetings per week in class and laboratory.

^{*}Figures in parentheses indicate contact hours per week in class and laboratory. Figures outside of parentheses indicate the number of meetings per week in class and laboratory.

CURRICULA FOR SUPPLY CORPS CANDIDATES SC-V(G)

Total of 6 Terms

FIRST COLLEGE YEAR (terms 1 and 2)

Curricula 101 and 201-cf. page 10.

SECOND COLLEGE YEAR (terms 3 and 4)

Curricula 381 and 481.

| | | | | | | _ | | • | | |
|--|----|------|-------|------|-------------|----|----|-----|--|--|
| | | s pe | r wee | ·k* | | | | | | |
| | | iire | t ter | m | Fourth tern | | | | | |
| Economics I-II, Principles of (BA1-2) | 3 | (| 3 |) | 3 | (| 3 |) | | |
| Accounting Ia-IIa (BA5a-6a) | 4 | (| 5 |) | 4 | (| 5 |) | | |
| World Economic Geography (G2-3) | | (| 2 |) | 2 | (| 2 |) | | |
| Psychology I—General (PS1) | | (| 2 |) | 2 | (| 2 |) | | |
| Business Organization and Management (BA12-13) | 4 | (| 4 |) | 4 | (| 4 |) | | |
| Business Law (BA15-16) | | (| 3 |) | 3 | (| 3 |) | | |
| | 18 | (| 19 |) | 18 | (| 19 |) | | |
| Physical Training (PT2-3-4) | 17 | (| 8 | 1/2) | 17 | (| 8! | (2) | | |
| | 35 | (| 27 | 1/2) | 35 | (: | 27 | (4) | | |

THIRD COLLEGE YEAR (terms 5 and 6)

Curricula 581 and 681

| Cui | iicu | ua | 0 | O I | CILI | 4 | UO | 1. | | | | | | | |
|---|------|---|-----|-------------|------------|----|-----|------------|----------|--|--|--|--|--|--|
| | | Fifth ter 4 (5 4 (4 3 (3 3 (3 4 (5 | | | Periods pe | | | | er week* | | | | | | |
| | Fi | | | Fifth term | | | Six | Sixth ter | | | | | | | |
| Statistics Ia-IIa (BA7a-7b) | 4 | (| 5 |) | 4 | (| 5 |) | | | | | | | |
| Business Finance (BA10-11) | | | | | | | | | | | | | | | |
| Marketing (BA19) | | | | | | | | | | | | | | | |
| Case Analysis of Business Problems (BA14) | | | | | 3 | (| 3 |) | | | | | | | |
| Introduction to Politics (POL1) | 3 | (| 3 |) | | | | 8 | | | | | | | |
| Comparative Economic and Political Systems (POL3) | | | | | 3 | (| 3 |) | | | | | | | |
| Elementary Cost Accounting (BA17) | 4 | (| 5 |) | | | | 6 | | | | | | | |
| Accounting and Statistical Controls (BA18) | | | | | 3 | (| 3 |) | | | | | | | |
| _ | 18 | (2 | 0 |) | 17 | () | 18 |) | | | | | | | |
| Physical Training (PT2-3-4) | 17 | (| 81/ | <u>(</u> 2) | 17 | (| 81/ | (2) | | | | | | | |
| - | 35 | (2 | 81/ | <u>(2)</u> | 34 | (: | 261 | <u>(2)</u> | | | | | | | |

Note.—Upon successful completion of the six terms the candidate will be assigned to Navy Supply Corps School for a course 4 months in length. Upon successful completion of this course he will receive a commission as Ensign U.S. N. R.

NAVY V-12 CURRICULA AND COURSE DESCRIPTIONS

CURRICULA FOR PRE-CHAPLAIN CORPS CANDIDATES Ch-V(S)

Total of 8 Terms

FIRST COLLEGE YEAR (terms 1 and 2)

Curricula 101 and 201-cf. page 10.

SECOND COLLEGE YEAR (terms 3 and 4)

Curricula 391 and 491.

| | Periods per week* | | | | | | | | | | |
|---|---|---|--|--|--|--|--|--|--|--|--|
| | Third term | Fourth term | | | | | | | | | |
| English III–IV (E3–4) General Geography (G1) Psychology I, II (PS1–2) Foreign Language I–II (L1–2) Biology I, II (B1–2) American History (H7) | 3 (3) 3 (3) 5 (5) 4 (8) 3 (3) | 3 (3) 3 (3) 3 (3) 5 (5) 4 (8) | | | | | | | | | |
| Physical Training (PT2-3-4) | 18 (22) 17 (8½) | 18 (22) 17 (8½) | | | | | | | | | |
| | $35 (30\frac{1}{2})$ | 35 (30½) | | | | | | | | | |

THIRD COLLEGE YEAR (terms 5 and 6)

Curricula 591 and 691.

| | | Per | riod | ls pe | r wee | | | |
|--|----|------|------|----------------|-------|----|-----|------------|
| . I'' (Pr) | F | ifth | ter | rm | Six | th | ter | m |
| English Literature (E5) | 3 | (| 3 |) | | | | |
| American Literature (E6) | | | | | 3 | (| 3 |) |
| History III, IV (H3-4) | 3 | (| 3 |) | 3 | (| 3 |) |
| Foreign Language III-IV (L3-4) | 3 | (| 3 |) | 3 | (| 3 |) |
| Psychology III, IV, Social (PS3) Differential (PS4) | 3 | (| 3 |) | 3 | (| 3 |) |
| Economics 1-11 (BA1-2) | | (| | | 3 | (| 3 |) |
| Elective (e. g. Bible, Social Studies, Psychology, etc.) | 3 | (| 3 |) | 3 | (| 3 |) |
| /pma (0, 4) | 18 | (1 | 8 |) | 18 | (] | 18 |) |
| Physical Training (PT2-3-4) | 17 | (| 81/ | ₂) | 17 | (| 8 | (2) |
| | 35 | (2 | 61 | | 35 | (2 | 26; | <u>(2)</u> |

^{*}Figures in parentheses indicate contact hours per week in class and laboratory. Figures outside of parentheses indicate the number of meetings per week in class and laboratory.

^{*}Figures in parentheses indicate contact hours per week in class and laboratory. Figures outside of parentheses indicate the number of meetings per week in class and laboratory.

FOURTH COLLEGE YEAR (terms 7 and 8)

Curricula 791 and 891.

| | Periods per we | | | | | | week* | | | | | | |
|------|----------------|-------------------------|-------------|---|---|---|---|--------------|--|--|--|--|--|
| S | even | th i | tern | n | Eigh | ern | rm | | | | | | |
| | 3 | (| 3 |) | 3 | (| 3 |) | | | | | |
| | 3 | (| 3 |) | 3 | (| 3 |) | | | | | |
| | 3 | (| 3 |) | 3 | (| 3 |) | | | | | |
| | 3 | (| 3 |) | 3 | (| 3 |) | | | | | |
| | 3 | (| 3 |) | | | | | | | | | |
| | | 20 | | 1500 | 3 | (| 3 |) | | | | | |
| | 3 | (| 3 |) | 3 | (| 3 |) | | | | | |
| | 18 | (1 | 18 |) | 18 | () | 18 |) | | | | | |
| | 17 | (| 81 | 2) | 17 | (| 8! | 1/2) | | | | | |
| 1.55 | 35 | (| 261 | <u>(2)</u> | 35 | (2 | 26! | (2) | | | | | |
| | | Seven 3 3 3 3 3 3 18 17 | Seventh 3 (| Seventh term 3 (3 3 (3 3 (3 3 (3 3 (3 3 (3 3 (3 3 (3 18 (18 17 (8) | Seventh term 3 (3) 3 (3) 3 (3) 3 (3) 3 (3) 3 (3) 3 (3) 3 (3) 3 (3) 18 (18) | Seventh term Eight 3 (3) 3 3 (3) 3 3 (3) 3 3 (3) 3 3 (3) 3 3 (3) 3 3 (3) 3 18 (18) 18 17 (8½) 17 | 3 (3) 3 (3) 3 (3) 3 (4) 3 (3) 3 (4) 3 (5) 3 (6) 3 (6) 3 (7) 4 (7) | Seventh term | | | | | |

Note.—Upon successful completion of the eight terms the candidate will be assigned to a theological seminary of his denomination and will remain there the number of terms necessary to obtain a B. D. degree in the shortest possible time.

CURRICULA FOR MARINE CORPS LINE OFFICER CANDIDATES

Total of 4 Terms

FIRST COLLEGE YEAR (terms 1 and 2)

Curricula 101 and 201-cf. page 10.

During the second term a course in the general field of map reading and interpretation or cartography may be substituted for the course in descriptive geometry, the number of meetings and contact hours involved to be the same. This substitution is permitted only for students actually enrolled in the Marine Corps Reserve, Class III (d).

SECOND COLLEGE YEAR (terms 3 and 4).

During the second college year it is desired that wide latitude in selection of courses be given both to the institution and to the student. It is recognized that institutions have special facilities in many fields for the setting up of courses which will be not only helpful to the student in his general education but specifically valuable to him as a Marine officer. Institutions are encouraged, therefore, to set up such courses, the responsibility for the content and scope of the course to be an institutional responsibility. The program of the individual student is to be arranged through consultation between the student and the academic authorities.

Suggested subjects for colleges to offer students for the second college year are: English and Public Speaking; Foreign Languages; History

(especially history of present or potential war areas); Political Science; American Government; International Law; Geography (especially geography of present or potential war areas); Economics; Statistics; Psychology; Sociology; Mathematics; Biology; Botany; Physics; Forestry; Parasitology; Sanitation (especially elementary tropical sanitation); Geology; Radio; Photography and Photogrammetry; Chemistry (especially chemical warfare); Pre-Engineering (all types); Mapping and Map Reading; Surveying.

CURRICULA FOR MARINE CORPS SPECIALIST OFFICER CANDIDATES

Total of 8 Terms

FIRST COLLEGE YEAR (terms 1 and 2)

Curricula 101 and 201—cf. page 10.

During the second term a course in the general field of map reading and interpretation or cartography may be substituted for the course in descriptive geometry, the number of meetings and contact hours involved to be the same. This substitution is permitted only for students actually enrolled in the Marine Corps Reserve, Class III (d).

SECOND, THIRD, AND FOURTH COLLEGE YEARS (terms 3-8, inclusive).

Students who during the first two terms show particular aptitude for mathematics and sciences and who are, within allotted quotas, assigned to engineering will be given courses leading toward degrees in one of the following fields: Electrical Engineering; Electrical Engineering and Electronics; Civil Engineering; Mechanical Engineering; and Mining Engineering. All of the students in this category will be given six terms in addition to the two terms of the first college year, making a total of eight terms.

Students taking engineering courses are being prepared to enter Marine Corps Schools in the fields of Communications, Engineering and Ordnance. Those taking courses in Electrical Engineering may be qualified for any of these fields; those doing work in Electronics will be eligible for specialist work in Communications; and those taking any branch of engineering will be eligible for specialist schools in general and combat engineering.

The program arranged for the student by the academic authorities will be set up to follow the ordinary curricula leading to engineering degrees, subject to the need for acceleration imposed by the limitation of the length of course to a total of eight terms. Courses considered by the institution to be appropriate will be accepted by the Marine Corps.

^{*}Figures in parentheses indicate contact hours per week in class and laboratory. Figures outside of parentheses indicate the number of meetings per week in class and laboratory.