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Course Examination.—Honors students may, with the approval of the Dean and the department, be excused from examinations in regular courses which lie in the field covered by the honors examination. In all courses taken for credit outside that field they are required to take the examinations.

Honors Examination.—Honors are awarded on the basis of examination at the end of Senior year. An essential feature of the examination in all departments is a three-hour paper set by the department concerned, general in the sense that it is taken by all candidates of that year, and comprehensive in the sense that it covers the entire field of honors study. This examination is usually attended by special examinations more limited in scope and sometimes is preceded by a preliminary examination (general but not necessarily comprehensive) at the end of Junior year. When the result of the written honors examination is in doubt, it may be followed and supplemented by an oral examination.

Honors students in any department conducting intercollegiate competitive examinations may be allowed to substitute the intercollegiate paper for the college comprehensive paper.

Award of Honors.—Honors are awarded by vote of the faculty, on recommendation of the department or departments concerned. In rare cases honors with exceptional distinction are awarded.

## GENERAL COURSE OF STUDY

- 1. The following requirements in distribution of work must be satisfied before graduation:
  - a. A full year course in one of the following sciences: Astronomy, Biology, Botany, Chemistry, Geology, Physics, Zoology.
  - b. A course numbered 30 or above in French or German or Italian or Spanish. (The requirement may be satisfied by an anticipatory examination.)
    - c. A course in Latin (13) or Greek (30) or Classical Civilization.
- 2. Every student shall take each year not more than five year courses, i.e. courses requiring one fifth of the student's working time.
- 3. Every student shall elect a subject in which he will do his major work during his last two years, taking each year at least two courses in the subject or, if so directed by the department, one course in the subject and one in a related subject. Schedules including more than two courses in the major subject require the approval of the Dean. In general the major will be the continuation of a subject studied in Freshman or Sophomore year (counting Biology as an introduction to Botany or Zoology); departures from this rule, to provide for the

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election of subjects not offered in the first two years, require the permission of the Dean.

4. No credit will be given for beginning courses in classical or in modern languages unless followed by a second course in the same language.

The list of subjects in which majors may be taken is as follows: Architecture, Art, Botany, Chemistry, Economics, English, French, Geology, German, Government, Greek, History, Italian, Latin, Mathematics, Music, Philosophy, Physics, Psychology, Religion, Sociology, Spanish, Zoology; also Astronomy, Classical Civilization, Military Science, Naval Science, provided the plan of work embracing courses in related subjects is approved by the department and the Dean.

5. A student of quality grade (average of 75 and above) may indicate on his blank four courses instead of five; the approval of his plan of work rests with the department of his major and the Dean, and it will be determined after the schedule blank has been submitted. Those students whose applications are approved will then do work equivalent to that of a fifth course under the direction of the department of their major; and their comprehension of the major subject as a whole will be tested, at the end of Junior year and again at the end of Senior year, by a departmental examination, or in such other way as the department may determine. A departmental student may, at the discretion of the department, be freed from course examinations in the field of his major.

6. Juniors and Seniors may attend as auditors any course in Yale College, subject to the approval and the regulations of the Dean and the instructor.

## AMOUNT OF WORK REQUIRED FOR ENROLLMENT AND FOR GRADUATION

A student will be admitted to Yale College in full standing only when he has completed successfully the entire work of his Freshman year.

A student will be admitted to the Junior class in full standing only when he has completed successfully the entire work of his Sophomore year, and to the Senior class only when he has completed successfully the entire work of his Junior year.

A student will be recommended for the degree only when he has completed successfully the work of all four years and has received a grade of 75 or better in at least six courses.

Failure in a course in any year may be made up only by passing a comprehensive examination in the course failed. A student who fails



## **MATHEMATICS**

Mathematics 11. Trigonometry and Analytic Geometry. Six credit hours. For students who have not passed trigonometry for entrance. Three hours. Mr. J. I. TRACEY, Mr. CHURCH, and Mr. RAWLES.

Mathematics 12. Introduction to Calculus.

For students who have passed trigonometry for entrance. Three hours. Mr. Longley, Mr. Engstrom, Mr. Frantz, Mr. E. Hille, Mr. E. J. Miles, Mr. E. P. NORTHROP, Mr. RAWLES, Mr. RAUDENBUSH, Mr. WHITTEMORE, and Mr. W. A. WILSON.

\*Mathematics 14. Trigonometry and Calculus.

For students of Architecture only. Three hours. Mr. Frantz.

Mathematics 21. Calculus (continued). Six credit hours. For Sophomores in Chemical, Civil, Electrical, and Mechanical Engineering, Chemistry, and Metallurgy. Three hours. Mr. P. F. SMITH, Mr. ENG-STROM, and Mr. WHITTEMORE.

Mathematics 22a. Calculus (continued). Three credit hours. For Sophomores in Industrial Administration. Three hours, first half of year. Mr. P. F. SMITH.

Mathematics 23. Differential and Integral Calculus. Six credit l A continuation of Mathematics 11. Three hours. Mr. J. I. TRACEY. Six credit hours.

Mathematics 25. Sophomore Mathematics. Six credit hours. For Sophomores, Juniors, and Seniors. After Mathematics 12. Three hours. Mr. W. A. WILSON.

Mathematics 26. Higher Algebra. Six credit hours. For Sophomores (with the consent of the instructor), Juniors, and Seniors. After Mathematics 11 or 12. Three hours. Mr. RAUDENBUSH.

Mathematics 27. Analytic Geometry. For Sophomores (with the consent of the instructor), Juniors, and Seniors. After Mathematics 11 or 12. Two or three hours. Mr. J. I. TRACEY.

Mathematics 28. Mathematics of Investment and of Statistics. Six credit hours. For Sophomores (with the consent of the instructor), Juniors, and Seniors, After Mathematics 11 or 12. Three hours. Mr. W. A. WILSON.

Mathematics 30. Advanced Calculus. Six credit hours. After Mathematics 21 or 23 or 25. Three hours. Mr. E. J. MILES.

Mathematics 31. Mechanics. After Mathematics 21 or 23 or 25. Three hours. Mr. Longley.

## MECHANICAL ENGINEERING

Mechanical Engineering 10s. Mechanical Technology. Three credit hours. Summer work at the beginning of the Junior year, commencing 7.00 A. M., E.S.T., Tuesday, September 4, 1934. Mr. KEATOR.

Mechanical Engineering 12. Mechanical Engineering. Seven credit hours. For Juniors in Industrial Administration. After Engineering Mechanics 10. Recitations three hours, laboratory or computation two hours. Mr. Serley and Mr. KEATOR.

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Mechanical Engineering 16. Mechanical Equipment and Design.

Eight credit hours. After Mechanical Engineering 10s. Three hours, first half of year; recitations four hours, applied work two hours, second half of year. Mr. Keator and Mr. WATERS.

Mechanical Engineering 20s. Mechanical Engineering Shops or Laboratory.

Three credit hours.

Any summer prior to Senior year. A written report is required. Mr. Dudley.

[Mechanical Engineering 21b. Inspection Trip. Omitted in 1934-35.] Mechanical Engineering 23. Industrial Management. Six credit hours.

Three hours. Mr. SEWARD.

Mechanical Engineering 25. Thermodynamics. Six credit hours. After Physics 22 and 23. Recitations three hours, laboratory two hours. Mr. LICHTY and Mr. KEATOR.

Mechanical Engineering 28. Senior Seminar.

Two credit hours.

One and one-half hours. Mr. DUDLEY.

Mechanical Engineering 36. Engineering Design. Six credit hours. After Mechanical Engineering 16b. Recitation one hour, applied work two hours. Mr. WATERS.

Mechanical Engineering 37. Machine Design. Six credit hours. After Engineering Drawing 10. Recitation one hour, applied work four

Mechanical Engineering 38. Mechanics of Machinery. Four credit hours. Two hours, Mr. Dudley.

Mechanical Engineering 39a. Hydraulic Turbines and Water Power.

Two hours, first half of year. Mr. KEATOR. Two credit hours.

Mechanical Engineering 39b. Pumping Machinery.
Two hours, second half of year. Mr. Keator. Two credit hours.

Mechanical Engineering 40. Heating, Cooling, and Air Conditioning.

Six credit hours.

After Mechanical Engineering 12 or 25. Recitation two hours, laboratory two hours. Mr. SEELEY.

Mechanical Engineering 41a. Applied Aerodynamics. Three credit hours. After Engineering Mechanics 14 or equivalent. Three hours, first half of year. Mr. WATERS.

Mechanical Engineering 41b. Airplane Engines. Three credit hours. After Mechanical Engineering 12 or 25. Recitation two hours, laboratory two hours, second half of year. Mr. BEST.

Mechanical Engineering 44. Experimental Engineering. Six credit hours. Laboratory four hours. Mr. KEATOR.

Mechanical Engineering 45. Power Engineering. Six credit hours.

After Mechanical Engineering 25. Lecture one hour, recitations two hours. Mr. Wohlenberg.

Mechanical Engineering 46. Automotive Engineering. Six credit hours. Recitations two hours, laboratory two hours. Mr. BEST.