

CURRICULUM

THE GROUP SYSTEM

The fundamental principle of the curriculum is that of the Group System, which comes into operation at the close of Freshman year. This Group System presents the following features:—

There are three groups, I Languages, II Philosophy (including Government, History, and Political Science), and III Sciences (including Mathematics).

After Freshman year and under the operation of the Group System all studies are elective.

Although no specific studies are required after Freshman year, every student must have completed after that time and before graduation at least 12 semester-hours* in each of the three groups.

Every student must have completed, after Freshman year and before graduation, a major study. By a major study is meant a special, cumulative study of fundamental and advanced courses, amounting to at least 15 semester-hours in some one of the following subjects:—

- 1 Greek; 2 Latin; 3 English; 4 French; 5 German; 6 Philosophy; 7 History; 8 History and Art; 9 Economics; 10 Economics and Government; 11 Mathematics; 12 Chemistry; 13 Physics; 14 Biology; 15 Chemistry and Geology.

*[NOTE—A semester-hour, or half-year hour, is one hour a week continued for a half-year. A year-hour is one hour a week continued for a year. Twelve semester-hours are therefore equivalent to four three-hour-a-week courses pursued for a half-year, or to two three-hour-a-week courses pursued for a year.]

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Major
Reqs.

Students in the course with Greek (Admission Group I) must have completed after Freshman year and before graduation at least 6 semester-hours of Greek or Latin.

Elementary French or Elementary German must either be presented at entrance in addition to the entrance subjects hitherto required, or else be taken as an extra course after entrance. The number of hours required for a degree will be 59 for those fulfilling this requirement at entrance and 62, as heretofore, for those who take the course in college. A second year is required of the language presented at entrance or begun in Freshman year.

At least 32 semester-hours of Sophomore work (the equivalent of four four-hour year courses) must be taken before graduation.

The number of semester-hours required for graduation is 118 (59 year-hours); or 124 (62 year-hours) for those who do not present one year of a modern language at entrance in addition to the subjects required by their admission group (see p. 26); but every student, in order to graduate, must have attained a grade above that of D in at least one-half the number of hours required for graduation.

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clear its place as a factor in modern production and exchange. Corporation finance receives extended treatment. There is no text-book, but students are expected to supplement the lectures by a considerable amount of assigned reading.

Senior elective course open only to those who have completed Economics I

Three hours a week during the second half-year

Assistant Professor WEBSTER

DEPARTMENTS OF THE MATHEMATICAL AND NATURAL SCIENCES

DEPARTMENT OF MATHEMATICS

Professor FERRY, Professor MILHAM, Assistant Professor HARDY, Mr. SHEPARD, and Mr. FORD

1 *Solid Geometry, Algebra, Plane Trigonometry, and Surveying*

Solid Geometry Books VI, VII, and VIII of Wentworth's *New Plane and Solid Geometry*, together with original propositions and numerical problems

Algebra Progressions, binomial theorem, logarithms, permutations, combinations, method of undetermined coefficients, determinants, theory of equations, etc. Fisher and Schwatt's *Higher Algebra*

Plane Trigonometry The trigonometric functions, trigonometric analysis, solutions of right and oblique triangles, etc. Phillips and Strong's *Elements of Trigonometry*

Field Work in Surveying The practical use of instruments, including determination of heights, simple triangulation, measurement of areas, and levelling This portion of the course is optional.

Freshman required course

Four hours a week through the year

Professor FERRY, Professor MILHAM,

Assistant Professor HARDY, Mr. SHEPARD and Mr. FORD

2 *Analytic Geometry and Differential Calculus*

Analytic Geometry Plane analytic geometry; the straight line, circle, parabola, ellipse, and hyperbola; with an introduction to analytic geometry of three dimensions Wentworth's *Analytic Geometry*

Professor FERRY and Mr. SHEPARD

Differential Calculus This part of the course is given during the second half-year and is introductory to Mathematics 3. It includes methods of differentiation, expansion of functions into series, indeterminate forms, the simpler applications to mechanics, and to the theory of plane curves, etc. Granville's *Calculus* is used.

Assistant Professor HARDY and Mr. SHEPARD

Sophomore elective course, required of Freshmen in admission groups IV and V

Four hours a week through the year

3 *Differential and Integral Calculus*

Integral Calculus Derivation and application of the fundamental formulas of integration; applications of the integral calculus to the calculation of lengths of curves, areas, and volumes, mean values, moments of inertia, etc., based on Murray's *Integral Calculus*

Professor FERRY

Advanced Calculus This part of the course is given during the second half-year and includes various applications of the differential and integral calculus to the theory of curves and surfaces, maxima and minima of functions of two variables, etc. Lectures are given and different works on calculus are used.

Assistant Professor HARDY

Junior elective course open to all who have taken Mathematics 2

Three hours a week through the year

4a *Differential Equations*

Methods of solution of the simpler forms of differential equations, applications to many problems of mathematical physics, etc., based on Murray's *Differential Equations*

Senior elective course open to all who have taken Mathematics 3

Three hours a week during the first half-year

Assistant Professor HARDY

4b *Modern Methods in Analytic Geometry*

Abridged notation, line co-ordinates, harmonic division, projection, etc., with many applications Lectures, with references to Salmon's *Conic Sections* and other works

Senior elective course open to all who have taken Mathematics 3

Three hours a week during the second half-year

Professor FERRY