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:

I 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.]
clear its place as a factor in modern production and exchange. Corporation finance receives extended treatment. There is no textbook, 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


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. Lecture 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.