

J. Hopkins  
1945-46

## Instruction in the College of Arts and Sciences

**T**HE BACHELOR OF ARTS degree is conferred upon students who successfully complete a four-year program in the liberal arts. The curriculum of the first two years provides a background of general education and only slight attention is paid to the major interest or vocational objective of an individual student. The curricula of the last two years make provision for special interests and are designated as follows: the Social Science Group, the Literature and Language Group, the Physical Science Group, the Biological Science Group. It will be noted that these groupings are based upon the subject matter of the various fields of knowledge and not upon professional or pre-professional requirements. The pre-medical student, for example, may major in any group and still meet medical school requirements through his choice of electives. More will be said on this subject later.

The advanced degrees of Master of Arts and Doctor of Philosophy offered in the School of Higher Studies, are conferred upon students who complete at least two or three years of work in advance of the bachelor's degree, or at least three or four years of work in advance of the general two-year curriculum of the College. Only exceptional students are given the second alternative.

In summary, the steps in the average student's progress toward the degree are as follows:

1. Matriculation
2. Completion of two years of general education
3. Acceptance into one of the four major groups
4. Completion of group requirements, including, in most cases, a comprehensive examination.
5. Residence of at least one full year if credit has been allowed on transfer from another institution.

### Curriculum in General Education

During the first two years the student must complete the following courses which are considered to be fundamental to a liberal education:

#### English A—English Writing

The minimum requirement in composition is the freshman course. English A. Students are expected, however, to maintain, throughout the entire period of residence, a high standard in all written work in all courses. Failure to write well will result in an assignment to the English Department for remedial drill.

#### English 1 C—A Survey of English Literature

History A—History of Occidental Civilization to the 17th Century

History B—History of Occidental Civilization from the 17th Century to the Present

#### Foreign Languages

Two standard courses beyond the elements in any foreign language (ancient or modern), or one standard course beyond the elements in French and another in German. Note.—Students who expect to take graduate work are advised to acquire a reading knowledge of foreign languages necessary for study in the particular field which they expect to enter.

#### Political Economy 1 C—Elements of Economics

#### Political Science 1 C—American Government

#### Natural Science

One or two courses, depending upon the organization of the new science courses.

#### Physical Education

### Curricula of the Last Two Years

Upon completion of the above requirements the student may seek admission to one of the following groups.

**SOCIAL SCIENCE GROUP** (History, Political Economy, Political Science, History of Philosophy, Ethics, Geography and Education).

The student must satisfy the faculty members of the group that he has met the following requirements:

- A knowledge of the characteristic forms of the economic systems of the past and present, of the causes and consequences of the industrial revolution, and of the economic development of the United States.
- A knowledge of human geography.
- A knowledge of international problems and organization in modern times.

ance France. Professor PAINTER. Two

ent in the Later Middle Ages. Associate weekly for one semester.

tury Renaissance. Associate Professor one semester.

fifteenth century; and an attempt to estimate by regions the importance of this Italian Renaissance in

tury Reformation. Associate Professor one semester.

volt, this course will consider the background of that movements in other countries for religious and social to religious issues and to the forces of nationalism

ent in Oceanic Expansion. Associate Pro- kly for one semester.

tenment. Professor GREENFIELD. (Not

the Revolutionary Era, 1789-1815. Pro- ered 1945-46.)

urope Since 1815. Professor GREENFIELD.

LATIN

Professor ROWELL (on leave)  
VISITS (visiting professor)

ree hours weekly through the year.

hours weekly through the year.

re. Three hours weekly through the year.

Three hours weekly through the year.

se for Advanced Students. Two hours

Other Latin Poets for Advanced Students. ours weekly through the year.

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MATHEMATICS

Professor MURNAGHAN

Professor ZARISKI

(on leave till Feb. 1, 1946)

Associate Professor WINTNER

Associate Professor JACOBSON

Assistant Professor MORRILL

Assistant Professor KERSHNER

(on leave)

Dr. DOWKER (on leave)

Mr. BOURNE

Mr. LIGHT

Students majoring in Mathematics should conform during their first two years to the requirements of the Physical Science Group. Both French and German should be selected as Modern Languages. Physics 1 C is required and should be taken during the second year. Biology 1 C, Chemistry 1 C and Geology 1 C are recommended as electives.

During each of the last two years, two one semester courses in Mathematics are required. The following is a specimen schedule of courses for students majoring in Mathematics. It will often be advisable for a student to take only four courses (particularly in his first and second years).

First Year

Mathematics 2 C or 1 C  
History A  
English A  
Modern Language  
Elective (optional)

Second Year

Mathematics 3 C  
Physics 1 C  
History B  
Modern Language  
Elective (optional)

Third Year

Mathematics 4 C 1  
Mathematics 4 C 1, 4 C 3 or 4 C 4  
Political Economy 1 C  
Elective

Fourth Year

Mathematics 4 C 2  
Mathematics 5 C 2, 5 C 3 or 5 C 4  
Elective  
Elective

1 C. Trigonometry; Analytic Geometry; Calculus. Five hours weekly through the year.

This course is for students who enter without Trigonometry.

2 C. Analytic Geometry; Calculus. Four hours weekly through the year.

This course is open only to those students who are credited with Trigonometry for matriculation.

3 C. Calculus; Advanced Analytic Geometry. Four hours weekly through the year.

Prerequisite: Mathematics 1 C or 2 C.

4 C 1. Advanced Calculus. Associate Professor WINTNER. Three hours weekly, first semester.

This course treats such topics in real variable theory as infinite series, infinite products, Fourier series, line and surface integrals, mechanical quadratures, and the Gamma function.

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**4 C 2. Functions of a Complex Variable.** Associate Professor WINTNER. Three hours weekly, second semester.

This course gives the elementary theory of analytic functions treating such topics as the Cauchy-Riemann equations, calculus of residues and conformal mapping.

**4 C 3. Algebra.** Associate Professor JACOBSON. Three hours weekly, one semester.

This course is an introduction to some of the topics of modern algebra. Particular attention is devoted to those topics which have immediate application to geometry and other fields of mathematics and physics. Amongst these are vectors and matrices; Systems of linear equations: bilinear and quadratic forms; elementary group theory.

**4 C 4. Geometry.** Professor ZARISKI. Three hours weekly, one semester.

This course treats topics in advanced analytic geometry and provides an introduction to projective geometry. The main prerequisite is an introductory course in analytic geometry.

**5 C 1. Linear Differential Equations.** Associate Professor WINTNER. Three hours weekly, one semester.

This course treats the hypergeometric equation, spherical harmonics, asymptotic expansions for Bessel functions, elliptic integrals and elliptic functions. 4 C 2 is a prerequisite.

**5 C 2. Topology.** Three hours weekly, one semester.

**5 C 3. Elementary Statistics.** Three hours weekly, one semester.

**5 E. Elementary Differential Equations.** Three hours weekly, one semester.

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## MILITARY SCIENCE AND TACTICS

Colonel THEBAUD

Captain CAMERON

The Reserve Officers' Training Corps was organized to provide officers for the Officers' Reserve Corps. A large percentage of the officers now in the army are graduates of the Reserve Officers' Training Corps.

With the establishment of Officers' Candidate Schools and other training units by the army, enrollments in the Advanced Courses of the Reserve Officers' Training Corps were discontinued. The Basic Courses remaining are designed to give students the fundamentals of military training and to aid them in obtaining commissions as officers in the Army of the United States. These systematic courses of military instruction are given while students are pursuing their general and professional studies, and the methods employed are designed to fit them for service in the army.

In addition to the military value of the course it aids materially in developing a manly, self reliant attitude and the ability to think and act quickly and clearly.

### OUTLINE OF COURSES

**1 a. Military Science.** Colonel THEBAUD. Lectures three hours weekly, drill two hours weekly, first semester.

Two hours of the classroom work will consist of basic military subjects such as "Military