1965

GEORGETOWN UNIVERSITY
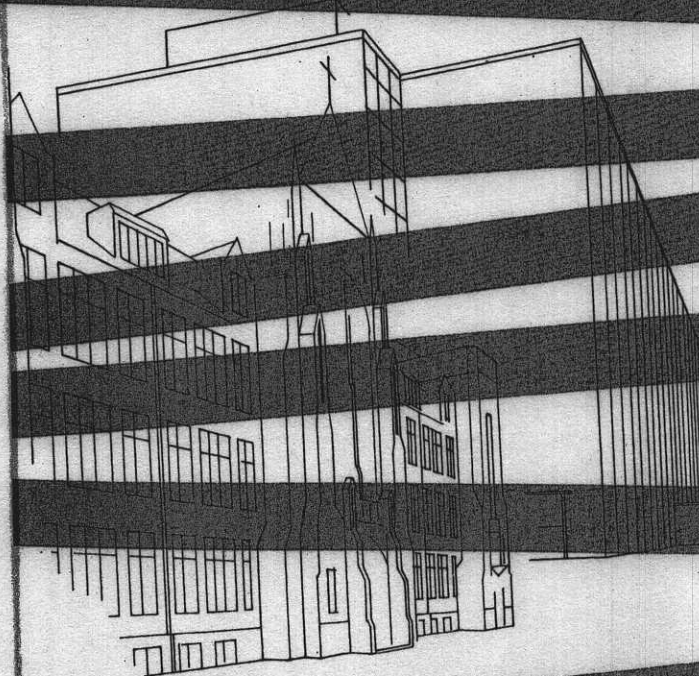
COLLEGE OF ARTS AND SCIENCES
1965–1966

Georgetown 1965-66

BACHELOR OF SCIENCE
(Biology)[3,4]

FRESHMAN

Course	Credits
English 1,2 or 5,6	3–3
Intermediate Modern Language	5–5
Chemistry 3,4	3–3
Mathematics 1,2	3–0
Theology 1[1]	0–3
Philosophy 1	
Physical Training	
ROTC (optional)	

SOPHOMORE

English 51,52	3–3
Philosophy 3,4	3–3
History 3,4	4–4
Biology 3,4	4–4
Physics 3,4	
Physical Training or ROTC	

JUNIOR

Philosophy 7	3–0
Theology 5[1]	0–3
Major	4–4
Major	4–4
Social Science	3–3
Elective (non-science)	3–3

SENIOR

Philosophy 8,9	3–3
Theology 7,8[1]	3–3
Major	4–4
Major	4–0
Thesis	2–2
Elective (non-science)	3–3

... substitute History 009 in freshman year,
... tive courses in senior year.
... rnment, Basic Psychology, and Principles of

... satisfy requirements for entrance to most

... tive Biology (Biophysics) is also available.
... Instruction, Department of Biology.

BACHELOR OF SCIENCE
(Chemistry)

FRESHMAN

Course	Credits
English 1,2 or 5,6	3–3
Intermediate German[3]	3–3
Chemistry 3,4	5–5
Mathematics 35,36	4–4
Theology 1[1]	3–0
Philosophy 1	0–3
Physical Training	
ROTC (optional)	

SOPHOMORE

English 51,52	3–3
Philosophy 3,4	3–3
Physics 3,4	4–4
Mathematics 37,38	4–4
Chemistry 15,16	3–3
Chemistry 17,18	2–2
Physical Training or ROTC	

JUNIOR

Philosophy 7	3–0
Theology 5[1]	0–3
History 3,4	3–3
Chemistry 7,26	3–3
Chemistry 9,22	2–2
Chemistry 19,20	3–3
Elective (non-science)	3–3

SENIOR

Philosophy 8,9	3–3
Theology 7,8[1]	3–3
Social Science[2]	3–3
Chemistry 23,28	2–4
Adv. Chem.-Adv. Sci.	3–3
Elective	3–3

1. Students who are not Catholic will substitute History 009 in freshman year, History 010 in junior year, and free elective courses in senior year.

2. Principles of Economics, U.S. Government, Basic Psychology, and Principles of Sociology.

3. Refer to Chemistry Department requirements, page 56, for additional details and for exception for pre-medical students.

BACHELOR OF SCIENCE
(Mathematics)

FRESHMAN

Course	Credits
English 1,2 or 5,6	3–3
Intermediate German	3–3
Physics 5,6	5–5
Mathematics 35,36	4–4
Theology 1[1]	3–0
Philosophy 1	0–3
Physical Training	
ROTC (optional)	

8
18 – 18

SOPHOMORE

English 51,52	3–3
Philosophy 3,4	3–3
Mathematics 101,102	3–3
Mathematics 37,38	4–4
History 3,4	3–3
Physical Training or ROTC	

14
16 ~16

JUNIOR

Philosophy 7	3–0
Theology 5[1]	0–3
Major	3–3
Major	3–3
Chemistry 3,4	5–5
Social Science[2]	3–3

12
17 –17

SENIOR

Philosophy 8,9	3–3
Theology 7,8[1]	3–3
Major	3–3
Major	3–3
Elective (non-science)	3–3

12
15 15

M

G   Credits to graduate: 8×15+12 = 132 But

includes physics, etc.

→ 46 cdts for Math Major

history of Ancient Greece and Rome. Exten-
of original sources. (Offered by Classics De-

itic History

ongress of Vienna, Metternich, Napoleon III,
atic background to the First and Second World

PROFESSOR HELDB

tual History
6–1967)

1914

najor developments on the world scene from the
I to the "Cold War" of today.
PROFESSOR QUIGLEY

e
66–1967)

a
om its beginnings to World War II. The Kievan
w; the Empire to the Revolution of 1917; the rise

PROFESSOR FADNER

Far East

onal history of India, China, Japan and Southeast
ne mid-19th century (in the first semester) and the
second).
PROFESSOR LEB

n America

il study of Colonial and National Latin America;
n, institutions, the revolutionary movements, inter-

PROFESSOR AGUILAR-LEON

r

of the American Nation
1966–1967)

133, 134. The United States in the Nineteenth Century

(To be given 1966–1967)

135, 136. The United States in the Twentieth Century

A study of the history of the United States from the era of Theodore
Roosevelt to the present.
3 credits each semester   PROFESSOR HUTHMACHER

139, 140. American Civilization

A study of American history, political, intellectual and cultural, chiefly
through the imaginative literature of the 19th and 20th centuries.
4 credits each semester   PROFESSOR DURKIN

171, 172. American Diplomatic History

(To be given 1966–1967)

GROUP IV

191, 192. Honors and Senior Seminar

The fall semester will consist of eight to nine graduate history lectures
in schools of history and methodology to be followed by directed reading
and research. During the second semester research, discussion and
writing will be emphasized. (Restricted to Honors history majors and
seniors).
3 credits each semester   STAFF

DEPARTMENT OF

Mathematics

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Professors AZIZ, OLIPHANT (*Chairman*), STOKES, TAAM; *Associate Profes-
sor* MAISEL; *Assistant Professors* LAGNESE, McCOART; *Instructors* HINCKE,
MULLEN, SMITH, STRAIN

For a major sequence in mathematics the candidate will be required to
complete the following courses during freshman and sophomore years:
Chemistry 003, 004 (023, 024 may be taken in the junior year as an
alternative); French 057, 058 or German 057, 058; Mathematics 035,
036, 037, 038, 101, 102; Physics 005, 006. During his junior year and
senior year he must elect a minimum of 24 semester hours of course work
from 100 and 200 level courses. This will include Mathematics 103, 104,
131, 132. The course selection must be approved by the Chairman.

001, 002. Elementary Analysis

Sets and subsets, set arithmetic, induction, inequalities, absolute value, subsets of RXR, functions, algebra of functions, linear functions, quadratic functions, special functions, comments on graphing, limits of functions, arithmetic of limits, continuity, difference quotient, derived function maxima and minima, step functions, integral of a step function, monotone functions, applications of integration.
3 credits, each semester

035, 036. Calculus and Analytic Geometry I, II

Notions of set algebra, induction, inequalities, absolute value, function, limit, derivative and integral. The logarithm, exponential and inverse trigonometric functions, introduction to differential equations, vector algebra with applications to geometry, curves and surfaces.
4 credits, each semester

037, 038. Calculus and Analytic Geometry III, IV

The Mean Value Theorem with generalizations and applications, sequences, series improper integrals, multiple integrals. Set functions and elementary probability, calculus of probabilities, calculus of scalar fields, line and surface integrals, linear differential equations with existence theorems, introduction to numerical analysis.
4 credits each semester

101, 102. Finite Dimensional Vector Spaces

Vector spaces, both real and complex; linear dependence and bases; inner products; linear transformations; matrices; bilinear and quadratice forms; canonical representations; eigenvalues.
3 credits, each semester

103, 104. Modern Algebra

Algebraic structures; groups, rings, fields; arithmetic: Peano postulates, elementary number theory, imbedding of sets; polynominals; matrix and determinant theory.
3 credits, each semester

119. General Topology

Topological spaces; open sets; closure; separation properties; continuous functions and homeomorphisms; weak topologies; metric spaces; net and filters; completeness, compactness, topological products, connectedness, paracompactness, uniform topologies, nets of continuous functions.
3 credits

125, 126. Theory of Functions

Complex numbers, analytic functions, Cauchy's theorem, uniform convergence, calculus of residues, integral functions and conformal mapping.
3 credits, each semester

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128. Introduction to Real Variables

Stieltjes and Lebesque integrals; absolute continuity; differentiability; functions of bounded variation; linear functionals in C(a;b); completeness of L^p, linear functionals of L^p; duality of L^p and L^s; weak and strong convergence in L^p and C(a;b).
3 credits

131, 132. Advanced Calculus

Limits and continuity, the real number system, partial differentiation, implicit functions, multiple integrals, convergence, integration.
3 credits, each semester

137, 138. Applied Mathematics

Introduction to complex variables and analytic functions; series expansions and classical transcendents; selected topics from differential equations.
3 credits, each semester

151, 152. Probability

Probability Theory restricted to discrete sample spaces.
3 credits, each semester

171. Introduction to Electronic Digital Computers

Discussion of computer applications, description of input-output and memory devices, floating point, binary and octal representation of numbers, Fortran programming, and an introduction to the numerical methods associated with high speed computers. Students will write programs for the University's IBM 1620 computer.
3 credits (Offered fall and spring)

172. Numerical Methods

Forward differences, divided differences and central differences with applications to interpolation; computations with series and integrals; inverse interpolation and the solutions of equations; solutions of system of linear equations; numerical solution of differential equations.
3 credits

182. Nomography

Representation of collinear points using determinants, graduation and conversion of scales, alignment charts, nomographs with one non-parallel scale and nomographs treating more than three variables.
Prerequisite: Math 038.
2 credits (Spring semester)

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