THE CITY COLLEGE OF NY
UNDERGRADUATE COLLEGIATE CALENDAR
1965-66

Uptown Center

1965

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept. 8-14</td>
<td>Registration (Day Session).</td>
</tr>
<tr>
<td>Sept. 7-14</td>
<td>Registration (Evening Division).</td>
</tr>
<tr>
<td>Sept. 16</td>
<td>Thursday, Beginning of classes, Fall term (Day and Evening Sessions).</td>
</tr>
<tr>
<td>Sept. 27, 28</td>
<td>No classes.</td>
</tr>
<tr>
<td>Oct. 1</td>
<td>Last day for filing applications for admission to the Spring term.</td>
</tr>
<tr>
<td>Oct. 6</td>
<td>No classes (6pm-11pm only).</td>
</tr>
<tr>
<td>Oct. 12</td>
<td>Tuesday. Columbus Day. Classes will be held.</td>
</tr>
<tr>
<td>Oct. 15</td>
<td>Last day for re-examinations, make-up examinations and removal of approved incomplete grades of previous term.</td>
</tr>
<tr>
<td>Nov. 2</td>
<td>Tuesday. Election Day. Classes will be held.</td>
</tr>
<tr>
<td>Nov. 11</td>
<td>Thursday. Veterans' Day. (no classes).</td>
</tr>
<tr>
<td>Nov. 25-27</td>
<td>Thanksgiving recess.</td>
</tr>
<tr>
<td>Dec. 24-Jan. 1</td>
<td>Winter vacation. Dates are inclusive.</td>
</tr>
</tbody>
</table>

1966

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan. 8</td>
<td>Last day of Day Session classes.</td>
</tr>
<tr>
<td>Jan. 11</td>
<td>Last day of Evening classes. (No evening classes will be held on Monday, January 10.)</td>
</tr>
<tr>
<td>Jan. 10-15</td>
<td>Day Session final examinations (given in class).</td>
</tr>
<tr>
<td>Jan. 13-20</td>
<td>Final examinations (Evening Session).</td>
</tr>
<tr>
<td>Jan. 15</td>
<td>Last day for filing applications for admission to the Fall term.</td>
</tr>
<tr>
<td>Jan. 25-31</td>
<td>Registration (Day Session).</td>
</tr>
<tr>
<td>Jan. 19-31</td>
<td>Registration (Evening Session).</td>
</tr>
<tr>
<td>Feb. 3</td>
<td>Thursday. Beginning of classes, Spring Term (Day and Evening Sessions).</td>
</tr>
<tr>
<td>Feb. 12</td>
<td>Saturday. Lincoln's Birthday (no classes).</td>
</tr>
<tr>
<td>Feb. 22</td>
<td>Tuesday. Washington's Birthday (no classes).</td>
</tr>
<tr>
<td>Feb. 24</td>
<td>Thursday. All classes (both day and evening) will meet in accordance with Tuesday schedule.</td>
</tr>
<tr>
<td>March 15</td>
<td>Last day for re-examinations, make-up examinations and removal of approved incomplete grades of previous term.</td>
</tr>
<tr>
<td>April 4-11</td>
<td>Spring vacation. Dates are inclusive.</td>
</tr>
</tbody>
</table>

NOTES:

1. On Thursday, February 24 all classes, both Day and Evening, will follow Tuesday schedules.
2. On Friday, April 15 all Day Session classes will follow Monday schedules. Evening classes will follow their regular Friday schedules.
3. Please note that this is the undergraduate calendar for the Uptown Center. There are variations in calendars of the Graduate Divisions and also for the Baruch School.
BACCALAUREATE CURRICULUM

General Description

The College of Liberal Arts and Science offers courses of study leading to the B.A. and B.S. degrees. The B.A. curriculum has four divisions, stressing language and literature, art, music, and social studies, respectively. The courses leading to the Bachelor's degree are divided into the following four groups:

1. A group of common studies prescribed for candidates for all degrees, designed to provide the skills of scholarship and the background of general knowledge essential to a liberal education (approximately 64 credits).

2. Studies forming a background for the particular degree or subdivision, such as mathematics for the natural sciences and history for the social sciences, etc. (12 to 24 credits).

3. Courses in a particular field of specialization (24 credits; for the B.A. in Social Studies, 30 credits).

4. Free electives to stimulate interest in other areas, sufficient in number to complete the 128 credits required for graduation.

GROUPS I AND II: BACHELOR OF ARTS

A. The subdivision with specialization in language and literature:

<table>
<thead>
<tr>
<th>Course title</th>
<th>Credits</th>
<th>See note below</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art 1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Economics 1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>English 1, 3, 4</td>
<td>10</td>
<td>(1)</td>
</tr>
<tr>
<td>Foreign language</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latin</td>
<td>6-16</td>
<td>(2)</td>
</tr>
<tr>
<td>A second language</td>
<td>8-16</td>
<td>(3)</td>
</tr>
<tr>
<td>Health Education</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>History 1, 2</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Mathematics 61</td>
<td>4</td>
<td>(4)</td>
</tr>
<tr>
<td>Music 1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Philosophy 1 or 2 or 3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Physical Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1, 2, 3, 4, (men) or</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>51, 52, 53, 54 (women)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political Science</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Science</td>
<td>6-16</td>
<td>(6)</td>
</tr>
<tr>
<td>Speech 1, 2</td>
<td>4</td>
<td>(1)</td>
</tr>
</tbody>
</table>

B. The subdivision with specialization in art:

The requirements are the same as in (A) except that Art 10 and Music 20 are prescribed instead of Art 1 and Music 1, and in place of one of the two foreign languages the following courses in art are prescribed:

Art 11.1, 12.1, 14.1, 15.1 or 18, 16.1 or 19,
21, 22, 24, 25.1, 25.2, 31.1, 32.1 .......................... 24 credits.

C. The subdivision with specialization in music:

The requirements are as in (A) except that Art 10 and Music 20 are prescribed instead of Art 1 and Music 1, and in place of one of the two foreign languages the following courses are prescribed:

Music 3, 4, 9, 13, 14, 16, 30, 26, 27, 28 .................................. 26 credits.
(see note 8)
D. The subdivision with specialization in social studies:
The same as (A), except that Economics 101 (3 cr.) is prescribed instead of Economics 1, and in place of one of the two foreign languages, the following courses are required:

- Economics 102
- History 4 or 5
- Psychology 1
- Sociology 5

3 credits

GROUPS I AND II: BACHELOR OF SCIENCE

<table>
<thead>
<tr>
<th>Course title</th>
<th>Credits</th>
<th>See note below</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art 1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Biology 3, 4</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Chemistry 1, 2 or 3, 4</td>
<td>8</td>
<td>(7)</td>
</tr>
<tr>
<td>Economics 1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>English 1, 3, 4</td>
<td>10</td>
<td>(1)</td>
</tr>
<tr>
<td>Foreign language</td>
<td>8-16</td>
<td>(3)</td>
</tr>
<tr>
<td>Geology 1</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Health Education 71</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>History 1, 2</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Mathematics 5, 6 or 7, 8, 1, 2, 3</td>
<td>10</td>
<td>(5)</td>
</tr>
<tr>
<td>Music 1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Philosophy 1 or 2 or 3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Physical Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1, 2, 3, 4 (men) or 51, 52, 53, 54 (women)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Physics 3, 4</td>
<td>8</td>
<td>(7)</td>
</tr>
<tr>
<td>Political Science 1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Speech 1, 2</td>
<td>4</td>
<td>(1)</td>
</tr>
</tbody>
</table>

NOTES:

1. The departments of English and Speech may excuse especially qualified students from the required courses, but such exemptions will not carry credit toward the degree. The departments may also withhold credit and require additional work of students who are below standard.

2. The Latin requirement varies according to the high school preparation. Students who begin Latin in college take 18 credits: Latin 51, 52, 53, and 54 or Comparative Literature 31. If they present two or three years of high school Latin they take 13 credits: Latin 53 and either 54 or Comp. Lit. 31; however, if they are inadequately prepared this requirement may be raised to include Latin 52, for a total of 13 credits. Those who offer four years take six credits: Latin 54 and either an advanced reading course or Comp. Lit. 31. In the Evening Division the requirements are similar but not identical; for details see the Bulletin of the School of General Studies.

3. The second foreign language may be French, German, Hebrew, Italian, Russian, or Spanish. Students specializing in science may choose any of these, but if they intend to do graduate work they should select French, German or possibly Russian, since many graduate schools require a reading knowledge of at least two of these languages. Students specializing in Art, Music or Social Studies may select any language offered by the college, including Latin or Greek.

The usual requirement is 12 credits, assuming that the student presents two years of language study for admission and decides to continue the language in college. Such students take courses 1 and 2 in the freshman year (in German, 71 and 72), for 6 to 8 credits, depending on the language, followed by more advanced courses in the sophomore year for a total of 12 credits.
The Law Department is a department of the Baruch School of Business and Public Administration. The following courses, may be chosen by students of the College of Liberal Arts and Science and are creditable towards Liberal Arts degree.

11. The American Legal System. This course attempts to acquaint the layman with the machinery by which justice is administered. Typical proceedings, civil and criminal, from institution to enforcement of judgement, are examined in detail, including the jurisdiction, organization and constitution of the several tribunals, administrative as well as judicial. 2 hrs. wk.; 2 cr.

101. Introduction to Business Law: Contracts. 3 hrs. wk.; 3 cr.
202. Legal Aspects of Advertising. 2 hrs. wk.; 2 cr.
211. The Law of Labor Relations. 2 hrs. wk.; 2 cr.

Law 11 and Law 101 are offered at both centers; the other courses are offered at the Downtown center only. For description of these courses, consult the bulletin of the Baruch School of Business and Public Administration.

For Roman Law, see Latin 61 and 62 (identical with Political Science 61 and 62). For the Philosophy of Law see Philosophy 54.

DEPARTMENT OF MATHEMATICS

Chairman

PROFESSOR ABRAHAM SCHWARTZ (to June 30, 1967)

Professors Emeriti

WILLIAM H. FAGERSTROM
A.B., M.A., Ph.D.

GEORGE N. GARRISON
B.S., M.A., Ph.D.

BENNINGTOON P. GILL
B.A., M.A., Ph.D.

WARREN G. HUBERT
B.S., M.S., Sc.D.

PAUL H. LINEHAN
B.A., Ph.D.

HERBERT P. WIRTH
B.S., Sc.M., Ph.D.

Professors

SHERBURNF F. BARBER
A.B., Rochester, 1929; A.M., 1930; Ph.D., Illinois, 1933.

*GILBERT F. BOKER
B.A., Columbia, 1929; B.S., 1926; M.E., 1927; Ph.D., 1931.

*On leave during year ending August 1965.

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ADAMS, BERNARD
B.S., New York University, 1949; M.S., 1951; Ph.D., 1958.

RICHARD G. STONEHAM
B.Sc., Illinois Institute of Technology, 1942; Sc.M., Brown, 1944; Ph.D., Berkeley, 1952.

GUY Z. UPDINE
A.B., Randolph-Macon, 1920; A.M., Columbia, 1925.

PIERRE R. VAN GOETHAM

Instructors

HIRONORI OTSUMI
B.S., Allegheny, 1957; M.S., Massachusetts Institute of Technology, 1959; Ph.D., 1964.

JEANETTE ROSENSTARK

Lecturers

DAVID BERKOWITZ

ELIS B. BLAKE

LOUIS J. ELBA

WILLIAM F. FROST

SHERWIN CRESTE
B.S., Remsen Polytechnic Institute, 1961, M.S., 1964.

PETER FALLEY

MORRIS GOLDREICH
B.A., Yeshiva, 1944; M.S., 1960.

ELLEN R. GODTLEIB

ROBERT W. JOHNSON

DEVORA KASACHKO

PAUL S. KIRSHBAUM

EDWARD LEIBER

SIDNEY M. LEIBERMAN

ERIC W. LYNN
B.S., Vienna Institute of Technology, 1923; Dipl.-Ing., 1925.

LOUIS LEON M. RIKIS

GIDEON NETTIER
B.S., Remsen Polytechnic Institute, 1961.

JEROME ELIOTT SACKS

MARVIN SCHWARTZ

REQUIREMENTS

The statement of specific courses in Mathematics required for the several degrees in the college of Liberal Arts and Science is given on page 17 and is repeated here. For the B.A. degree Mathematics 61 is required. Students who wish to take more advanced work in place of Mathematics 61 may take Mathematics 5 and 6 or Mathematics 1 or Mathematics 7. For the B.S. degree with emphasis on biology or psychology Mathematics 5 and 6 are required. Students who wish to take more advanced work in place of these courses may take Mathematics 1 and 2 or Mathematics 7 and 8. For the B.S. degree with emphasis on chemistry, geology, mathematics, or physics Mathematics 5, 6, and 7 or Mathematics 7 and 8 are required.

Mathematics 61 and Mathematics 92 are required courses in the School of Engineering and Architecture. They may be elected by students in Meteorology (Geology Dept.) and, if approved by the elective concentration adviser, by students in other science areas. Only with prior approval of the department of Mathematics may they be used for elective concentration in mathematics. Credit will not be given for or or .

INTRODUCTORY COURSES

1. 2. 3. Analytic Geometry and Calculus, I, II, III. This sequence of three courses covers the same ground as Mathematics 7 and 8 and, in addition, provides time for some review, as needed, of algebra and trigonometry. It is required in place of Mathematics 7 and 8 of students who have taken both trigonometry and advanced algebra in high school if, after examination, they are considered to need some review of these subjects.


5. Elementary Mathematical Analysis I. The rectangular coordinate system, plane trigonometry, the straight line, the conic sections, limits and continuity. 4 hrs. wk.; 4 cr. Prereq.: 24 units of high school mathematics including plane geometry and intermediate algebra.

6. Elementary Mathematical Analysis II. Polynomials and the theory of equations; the derivative and applications to graph sketching, motion problems, extrema problems; definite integral, indefinite integral, fundamental theorem of the integral calculus and applications to areas, volumes, and motion problems; the transcendental functions and their calculus. 4 hrs. wk.; 4 cr. Prereq.: Math. 5.

7. Analytic Geometry and Calculus. 5 hrs. wk.; 5 cr. Prereq.: Trig. and Adv. Alg. either in high school or college.


42. Plane Trigonometry. 3 hrs. wk.; 3 cr.

43. College Algebra. 3 hrs. wk.; 3 cr.

61. Fundamentals of Mathematics I. An introduction to some of the methods of calculus. For students not intending to specialize in science or mathematics. 4 hrs. wk.; 4 cr. Prereq.: 3 units of high school mathematics including plane geometry and algebra.


216. Arithmetic Analysis. Arithmetic theory and practice with approximately one-third of the course devoted to applications to typical business problems. 3 hrs. wk.; 3 cr. in the School of Education; no cr. in the College of Liberal Arts and Science.

ELECTIVE COURSES

Students desiring to take electives should consult the departmental Elective Concentration advisor. Continued privilege of electives is dependent upon attaining a minimum final grade of "C" in each prerequisite course taken.

A Mathematics major is advised to select one of French, German, or Russian as his required language and to acquire a reading knowledge of two of these languages if he intends to do graduate work in Mathematics.

11. Theory of Numbers. 3 hrs. wk.; 3 cr. Prereq.: Math. 3 or 8.


13, 14. Introduction to Higher Analysis I, II. Suggested for students who intend to do graduate work at the doctoral level in mathematics. Two terms, 4 hrs. wk.; 4 cr. each term. Math. 3 or Math. 8 is prerequisite for Math. 13; Math. 13 is prerequisite for Math. 14. Credit will not be allowed for both Math. 13, 14 and Math. 23, 24, 25.


21. Mathematical Statistics I. Students who have completed Mathematics 218 in the School of Business may not receive credit for Mathematics 21. 3 hrs. wk.; 3 cr. Prereq.: Math. 3 or 8.


23. Advanced Calculus I. The real number system, continuous functions, functions of several variables, theorems of partial differentiation. 3 hrs. wk.; 3 cr. Prereq.: Math. 3 or 8. The Mathematics 23, 24, 25 sequence is suggested for students who do not intend to do graduate work at the doctoral level in mathematics. Credit will not be allowed for both Math. 13, 14 and Math. 23, 24, 25.


26. Vector Spaces and Matrices. 3 hrs. wk.; 3 cr. Prereq.: Math. 3 or 8.
